

U.S. Army Corps of Engineers, Alaska District
In-Situ Chemical Oxidation (Phase I) and Intrusive Drum
Removal/Landfill Cap

Northeast Cape, St. Lawrence Island, Alaska
Contract No. W911KB-09-C-0013
FIIP No. F10AK096905_07.08_0500_p

SITE 7 LANDFILL CAP
CONSTRUCTION COMPLETION REPORT

FINAL
MAY 2010



111 W. 16th Avenue, Third Floor
Anchorage, Alaska 99501-5109
Phone (907) 563-0013
Fax (907) 563-6713

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ACRONYMS AND ABBREVIATIONS

'	minutes
°	degrees
°F	degrees Fahrenheit
µg/L	micrograms per liter
AC&WS	Aircraft Control and Warning Station
ADEC	Alaska Department of Environmental Conservation
AHAs	Activity Hazard Analyses
ANCSA	Alaska Native Claims Settlement Act
ATV	all-terrain vehicle
Bering Air	Bering Air, Inc.
Bristol	Bristol Environmental Remediation Services, LLC
BTEX	benzene, toluene, ethylbenzene, and xylenes
C.I.H.	Certified Industrial Hygienist
CDQR	Chemical Data Quality Report
CFR	Code of Federal Regulations
CLINs	Contract Line Item Numbers
CQC	contractor quality control
CQCP	Contractor Quality Control Plan
CQCSM	Contractor Quality Control Systems Manager
DRO	diesel-range organics
EPA	U.S. Environmental Protection Agency
FUDS	Formerly Used Defense Sites
Global	Global Services, Inc.
GPS	Global Positioning System
GRO	gasoline-range organics
HDPE	high-density polyethylene
HWAP	Hazardous Waste Accumulation Point
ISCO	in-situ chemical oxidation
mg/kg	milligrams per kilogram
MOC	Main Operations Complex

ACRONYMS AND ABBREVIATIONS (continued)

NE Cape	Northeast Cape White Alice Site
NSI	Northland Services, Inc.
PCBs	polychlorinated biphenyls
PID	photoionization detector
PLO	Public Land Order
PM	Project Manager
PPE	personal protective equipment
ppm	parts per million
QA	quality assurance
QAR	Quality Assurance Representative
QC	quality control
R&M	R&M Consultants, Inc.
RI	remedial investigation
RRO	residual-range organics
SAP	Sampling and Analysis Plan
SHSP	Site Health and Safety Plan
SOW	Scope of Work
SSHO	Site Safety and Health Officer
TAH	total aromatic hydrocarbons
TAqH	total aqueous hydrocarbons
TestAmerica	TestAmerica Laboratories, Inc.
USACE	U.S. Army Corps of Engineers, Alaska District
USAF	U.S. Air Force
WACS	White Alice Communications System
WMP	Waste Management Plan
WP	Work Plan

EXECUTIVE SUMMARY

This Removal Action Report presents the results of a removal action performed at the Northeast Cape (NE Cape), White Alice Site on St. Lawrence Island, Alaska. Bristol Environmental Remediation Services, LLC (Bristol), and its team of subcontractors performed the work for the U.S. Army Corps of Engineers, Alaska District (USACE), under Contract No. W911KB-09-C-0013.

St. Lawrence Island is located in the Bering Sea, approximately 135 air miles southwest of Nome, Alaska, at 63 degrees (°) 20 minutes (') north latitude and 168° 59' west longitude. A U.S. Air Force (USAF) Aircraft Control and Warning Station (AC&WS) was constructed at the site during 1950 and 1951, and activated in 1952. In 1954, the USAF constructed a White Alice Communications System (WACS) station, composed of four large parabolic antennas and a building housing the electronic equipment. The facility functioned as a surveillance station, providing radar coverage for the Alaskan Air Command and, later, for the North American Air Defense Command. It was part of an Alaska-wide early warning system constructed to reduce potential vulnerability to bomber attack across the polar region.

AC&WS and WACS operations were terminated in 1969 and 1972, respectively. The majority of the military personnel were removed from the NE Cape site by the end of 1969. NE Cape buildings, and the majority of furnishings and equipment, were abandoned in place because of the high cost of off-island transport. In 2000, the White Alice Station was reclassified as a Formerly Used-Defense-Sites-eligible property, and the USACE included the area in the ongoing cleanup program for NE Cape.

A building demolition and debris removal and containerized hazardous and toxic waste removal action was conducted at the site during the 2000, 2001, 2003, and 2005 field seasons. The Scope of Work (SOW) for Bristol's 2009 contract included the location and removal of product-filled drums, capping of an existing landfill, and performance of an In-Situ Chemical Oxidation Pilot Study.

The SOW for the 2009 contract season included:

- 1 • Preparing plans and reports;
- 2 • Mobilizing and demobilizing to/from the NE Cape site;
- 3 • Removal of 55-gallon drums filled with liquid from the entire magnetic footprint
- 4 (R&M Geophysical Survey, 2007) within the approximately 150,000 square feet of the
- 5 landfill;
- 6 • Excavating 10 test pits and trenches, each covering an area of 100 square feet and a
- 7 depth of 4 feet;
- 8 • Removing, draining, and disposing of fifty 55-gallon drums;
- 9 • Removing and disposing of 2,500 gallons of product associated with drums;
- 10 • Excavating, removing, and disposing of approximately 75 tons of petroleum, oil, and
- 11 lubricant-contaminated soil;
- 12 • Designing and constructing a landfill cap;
- 13 • Surveying all test pit and trench corners, sample locations, drum locations, pre- and
- 14 post landfill cap elevations, and landfill cap boundaries; and
- 15 • Stabilizing and revegetating disturbed areas.

16 Bristol received the USACE's notice to proceed on March 31, 2009. Freight was loaded onto
17 two Northland Services, Inc., barges at the Port of Anchorage between May 7 and May 16,
18 2009. The barges departed Anchorage on May 27, and arrived in Nome, Alaska, on June 15,
19 2009. The first landing craft arrived at Kitnagak Bay and landed at Cargo Beach on June 24,
20 2009. Logistical operations and on-site mobilization activities began June 25, 2009, and
21 continued until the temporary construction camp was completed on July 8, 2009.

22 Bristol used a combined field scientific team and craft labor crew that included local residents
23 at the project site from June 25, 2009, through August 22, 2009. During this period, Bristol
24 and its subcontractors:

- 25 • Upgraded and repaired access roads to work sites;
- 26 • Constructed and maintained temporary camp facilities capable of housing
- 27 approximately 35 people;
- 28 • Excavated 72 shallow "potholes" across the entire surface of the Site 7 Landfill;
- 29 • Excavated 10 test pits, each covering at least an area of 100 square feet and a depth of
- 30 4 feet;
- 31 • Performed excavation activities across previously delineated magnetic anomaly areas
- 32 covering approximately 129,246 square feet at the Site 7 Landfill;

- 1 • Located, removed, and decommissioned 182 drums that contained wastes from the
- 2 Site 7 Landfill;
- 3 • Removed and properly disposed of 136.4 tons of nonhazardous waste;
- 4 • Removed and properly disposed of 2.7 tons of hazardous waste;
- 5 • Hauled 1,201 loads of capping material from the local borrow pit, for a total of 28,824
- 6 cubic yards;
- 7 • Capped, graded, and revegetated 7.8 acres of the Site 7 Landfill;
- 8 • Conducted pre- and post surveys to capture topographic information at Site 7 and
- 9 general site survey data across multiple work sites; and
- 10 • Successfully demobilized within the originally anticipated timeframe.
- 11 Bristol managed a close working relationship with its subcontractors to successfully fulfill all
- 12 the contract specifications.

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1.0 INTRODUCTION

This Removal Action Report presents the results of work performed at Northeast Cape (NE Cape), on St. Lawrence Island, Alaska. Bristol Environmental Remediation Services, LLC (Bristol) and its team of subcontractors performed the work for the U.S. Army Corps of Engineers, Alaska District (USACE), under Contract No. W911KB-09-C-0013.

The work contained two areas of primary focus. One aspect of the project involved the removal of drums that contained wastes from the Site 7 Landfill, and subsequent landfill capping. The other effort at NE Cape under this contract was an evaluation of in-situ chemical oxidation (ISCO) technology to remediate contamination at a pilot study site at the Main Operations Complex (MOC). The final documentation regarding the results of the ISCO study will be presented separately from this report.

The contract was awarded to Bristol on March 31, 2009. Draft planning documents were submitted to the USACE on May 20, 2009, and final planning documents were submitted on July 24, 2009. Bristol personnel began mobilization on June 25, 2009. The mobilization was completed and removal actions began July 12, 2009. Except for two sampling events related to the ISCO study, all the fieldwork was completed and Bristol personnel and all subcontractors were off-island by August 22, 2009.

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2.0 SITE DESCRIPTION

2.1 PHYSICAL DESCRIPTION AND HISTORY

2.1.1 Location

St. Lawrence Island is located in the Bering Sea, near the territorial waters of Russia, approximately 135 air miles southwest of Nome, Alaska (Figure 1). The project site, which originally encompassed 4,800 acres, located near Northeast Cape (NE Cape), falls between Kitnagak Bay to the northeast, Kangighsak Point to the northwest, and the Kinipaghulghat Mountains to the south (Figure 2). The site is located at 63° 20' north latitude and 168° 59' west longitude, in Township 25 South, Range 54 West, Kateel River Meridian.

2.1.2 History

St. Lawrence Island was established as a reindeer reserve by Executive Order on January 7, 1903. The present project site was acquired by the U.S. Air Force (USAF) on January 16, 1952, under Public Land Order (PLO) 970, which removed 21,013 acres from the reserve. In 1952, the USAF Aircraft Control and Warning Station (AC&WS) was formally activated by the assignment of the 712th AC&WS Squadron and the 698th Security Squadron. The original site was designed to support 212 men. Throughout its existence, the NE Cape facility has been a surveillance station, providing radar coverage for the Alaskan Air Command and, later, for the North American Air Defense Command, as part of an Alaska-wide system constructed to reduce potential vulnerability to bomber attacks across the polar regions.

The White Alice Station area remained in operation with minimal military staff until 1972. All lands were then withdrawn from the military under PLO 5187 for classification under Section 17(d)(1) of the Alaska Native Claims Settlement Act (ANCSA) of 1971, which entitled local community village corporations to select and receive specific tracts of federal land. Interim Conveyance No. 203 (June 1979) conveyed unsurveyed lands of St. Lawrence Island to Sivuqaq, Inc., and Savoonga Native Corporation. Excluded from transfer were surveyed land, easements, and land-use permits effective before conveyance.

In 1982, transfer of the White Alice Station area, south of the MOC, to the U.S. Department of the Navy was initiated. However, this transaction was not formally completed and was

superseded by ANCSA. The Navy conducted a removal action under its Comprehensive Long-Term Environmental Action, Navy program. The action included removal of specified hazardous items and containerized hazardous and toxic waste.

In 2000, the White Alice Station was reclassified as a Formerly Used Defense Sites (FUDS)-eligible property and, in response, the USACE included the area in the ongoing cleanup program for NE Cape (USACE, 2002).

2.2 PHYSICAL ENVIRONMENT

2.2.1 Climate

St. Lawrence Island has a cool, moist, subarctic maritime climate with some continental influences during winter when much of the Bering Sea is capped with ice pack. Winds and fog are common, and precipitation occurs approximately 300 days per year as light rain, mist, or snow. Annual snowfall is approximately 80 inches per year. Total annual precipitation is about 16 inches per year, and more than half falls as light rain between June and September. Summer temperatures average between 34 degrees Fahrenheit (°F) and 48°F, with a record high of 65°F. Winter temperatures range from -2°F to 10°F, with an extreme low of -30°F. Freeze-up normally occurs in October or November, and breakup normally occurs in June.

Winds are generally in a northerly to northeasterly direction from September to June, and southwesterly in July and August. Winds exceeding 11 miles per hour occur 70 percent of the time. In the winter, winds average 23 miles per hour. The average wind speed is 18 miles per hour. Gusts in the NE Cape area have measured as high as 110 miles per hour (USACE, 2002).

2.2.1.1 Weather Conditions During Project Field Season

Weather conditions during the July through late-August 2009 field season were typical of a summer subarctic maritime climate. Low-to-moderate variable winds, light precipitation or fog, and temperatures ranging from the high 30s to the low 60s, were typical of the daily weather in lowland and lower mountain areas. Periodic violent storms with high, sustained, winds in excess of 50 miles per hour and high precipitation were encountered, as well as periods of clear, calm conditions.

2.2.2 Topography

The Lower Mountain area consists mainly of flat coastal plains that gradually turn into rolling tundra toward the base of the Kinipaghulghat Mountains. The mountains rise abruptly to a maximum elevation of more than 1,850 feet above mean sea level. Elevations across the work area range from sea level to approximately 200 feet above mean sea level.

2.2.3 Geology

St. Lawrence Island consists of isolated bedrock highlands of igneous, metamorphic, and older sedimentary rocks surrounded by unconsolidated surficial deposits overlying a relatively shallow erosional bedrock surface. In the immediate vicinity of the Lower Mountain area, shallow, unconsolidated surficial materials overlie quartz monzonitic rocks of the Kinipaghulghat Pluton. The pluton forms the mountainous work area south of the MOC, including Kangukhsam Mountain. The Suqitughneq River drainage at the work area in the Kinipaghulghat Pluton has created an erosional valley and alluvial fan of unconsolidated sediments. Granitic bedrock materials are exposed at the coast north of the site at Kitnagak Bay, suggesting that quartz monzonitic bedrock underlies the unconsolidated materials at a relatively shallow depth on a wave-cut erosional platform.

The unconsolidated materials exhibit an alluvial soil profile in areas that have not been disturbed by man. In general, silts near the surface overlying more sand-dominated soils at depth characterize native soil stratigraphy at the site. The silt may contain varying quantities of clay, sand, and gravel, and may vary from zero to 10 feet in thickness. The silt is dark brown to dark green and sometimes exhibits a mottled texture. In some areas, the silt exhibits an aqua green or blue color. Dark brown silts are observed in outcrop. The sand at depth contains varying degrees of silt, gravel, and cobbles, and varies from 2 feet to more than 20 feet in thickness. These deeper, coarse-grained materials are generally unsorted and are likely to be of glaciofluvial origin. The depth to bedrock at the lower elevation areas of the site is unknown.

Beach material is primarily cobble (1-inch stones) with some sand. Some areas have large boulders and rocks (USACE, 2002).

2.2.4 Hydrogeology and Water Quality

Because of the relatively remote and undeveloped nature of St. Lawrence Island, there is little data about regional groundwater. Bedrock materials south of the site (and underlying the unconsolidated deposits) are not expected to store and transmit significant quantities of groundwater. Typically, these types of granitic rocks are generally impermeable and transmit groundwater only through localized fractures and weathered soil zones at the surface.

The primary potential aquifer at the NE Cape site is the unconsolidated alluvial material that underlies the area, although a deeper, confined aquifer may also exist. The mountainous area to the south provides an ideal recharge area for the unconsolidated materials, providing runoff from rain and snowmelt during the summer. Based on the topography and geology of the site, the regional groundwater flow direction is expected to be from the mountainous recharge area south of the site, flowing north and eventually discharging to the Bering Sea.

A key factor influencing the flow of groundwater at the site is the existence of permafrost and frozen soils, which render the unconsolidated materials effectively impermeable in areas. The U.S. Geological Survey has classified St. Lawrence Island as an area of “moderately thick to thin permafrost.” Although the depth of permafrost at St. Lawrence Island is unknown, the base of permafrost on the mainland at Nome (135 air miles to the northeast) is estimated to be at a depth of 120 feet. The deeper unconsolidated deposits at the site are probably permanently frozen, and the shallow soils represent the active layer, where soils are thawed only during portions of the year. Frozen soils have a profound effect in retarding groundwater flow during most of the year.

In addition to the Bering Sea north of the NE Cape facility, surface water in the vicinity of the work area consists of small streams, small- to moderate-sized lakes, and marshy areas. Surface water generally flows northward from the highland area to the south. Small surface waterbodies are common throughout the area. The primary stream drainage in the area is fed by runoff from the prominent drainage of the Kinipaghulghat Mountain valley in the Lower Mountain area. Several smaller tributaries feed this stream drainage as it flows north to Kitnagak Point. This stream was impacted by a diesel fuel spill in the 1960s. The smaller tributaries originate from two small, unnamed lakes (USACE, 2002).

2.2.5 Air Quality

Air quality in the area is good. There are minimal sources of air emissions at the site because of its remote nature. The occasional boat motor, all-terrain vehicle (ATV) engine, or fire has a negligible effect. Air emissions at the site increase during remedial action work because more equipment and vehicles are at the site. Winds typical of the area disperse emissions (USACE, 2002).

2.3 SOCIOECONOMIC CONDITIONS

2.3.1 Community Profile

The nearest community on St. Lawrence Island to the project site is the Village of Savoonga, approximately 60 miles northwest of the site, with a population of approximately 800 people according to elders from Savoonga. There are no permanent residents at the NE Cape site, but there is a small subsistence hunting and fishing camp in the area that is inhabited in the summer by residents of Savoonga and Gambell. The island is accessible by boat, regularly scheduled airlines (to Gambell and Savoonga), and chartered air flights out of Nome. There is no regularly scheduled commercial access to the project site (USACE, 2002).

2.3.2 Subsistence Activities

Savoonga is a traditional Siberian Yup'ik village, with a subsistence lifestyle based on walrus and whale hunting. Whale, seal, walrus, and reindeer comprise 80 percent of islanders' diets. The economy is largely based upon subsistence hunting of walrus, seal, fish, and whale, with some cash income. Berries and edible plants are also harvested. Subsistence fishing for halibut takes place in the vicinity of NE Cape.

2.4 BIOLOGICAL ENVIRONMENT

2.4.1 Vegetation

The NE Cape area has several major habitat types, including moist tundra dominated by heaths, grasses, sedges, mosses, and lichens, with shrubs that include bearberry, dwarf birch, narrow-leaf Labrador tea, and willow. These plants typically grow in one to three feet of undecayed organic mat over saturated and frozen soil. Alpine tundra plants (dwarf, prostrate plants that include heaths and tundra species adapted to dry, thin soil conditions) grow on the

slopes and exposed ridges of the nearby mountains. The NE Cape area has many low-lying areas with lakes, bogs, and poorly drained soils (USACE, 2002).

2.4.2 Fish and Wildlife

Large mammals are generally not abundant on St. Lawrence Island. Polar bears may be on the island anytime during the year, but are most often present when the ice pack is nearshore. Some years, polar bears are stranded on the island throughout the summer when the ice pack moves out earlier than usual. More than 1,000 reindeer can also be found on the island. Arctic foxes, cross foxes, red foxes (less common), wolves (rarely), and several small mammals (tundra shrews, arctic ground squirrels, Greenland collared lemmings, red-backed voles, and tundra voles) also inhabit the island. Animals usually seen in or around the buildings are small mammals such as ground squirrels and the occasional fox.

Marine mammals are present in the vicinity of the NE Cape area as seasonal migrants in the offshore and nearshore marine waters, at haul-out sites, and in association with the advancing and retreating ice pack. No haul-out sites are within the work area. During the summer, walrus, sea lions, and spotted seals may be present in offshore waters. During the ice season, ringed seals, bearded seals, walrus, and spotted seals can be found in nearshore and offshore leads and open water. Bowhead, gray, minke, killer, right, humpback, blue, and beluga whales inhabit offshore waters.

The only breeding seabird colony known to exist at the NE Cape facility consists of about 60 glaucous gulls and 60 herring gulls at Seevookhan Mountain, about 5 miles southeast of the NE Cape site. Several other species of birds have been sighted in the vicinity of the NE Cape site, including common ravens, snow buntings, whistling swans, Lapland longspurs, and gulls.

Ten primary species of fish reside in the streams and tundra ponds of St. Lawrence Island. These include blackfish, nine-spined stickleback, grayling, whitefish, arctic char, and Dolly Varden trout. Five of the six species of Pacific salmon occur around the island, and rear in many of the larger drainages.

2.5 PREVIOUS STUDIES AND ACTIONS

Environmental investigations and cleanup activities at NE Cape began in the mid 1980s with the goal of locating and identifying areas of contamination, and gathering enough information to develop a cleanup plan. Remedial investigations (RIs) were initiated at NE Cape during the summer of 1994. Additional sampling was performed during subsequent investigations: Phase II RI [Montgomery Watson, 1996 and 1999]; Phase III RI [Montgomery Watson Harza, 2003]; and Phase IV RI [Shannon & Wilson, Inc., 2005]. The studies divided the concerns among 34 separate sites. The results of the RIs showed that contaminants were present at some but not all sites.

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3.0 SCOPE OF WORK FOR 2009

3.1 SCOPE OF WORK

The contract Scope of Work (SOW) for the Intrusive Drum Removal/Landfill Cap consisted of the following activities:

- Preparing plans and reports;
- Mobilizing and demobilizing to/from the NE Cape site;
- Removal of 55-gallon drums filled with liquid from the entire magnetic footprint (R&M Geophysical Survey, 2007) within the approximately 150,000 square feet of the landfill;
- Excavating 10 test pits and trenches, each covering an area of 100 square feet and a depth of 4 feet;
- Removing, draining, and disposing of fifty 55-gallon drums;
- Removing and disposing of 2,500 gallons of product associated with drums;
- Excavating, removing, and disposing of approximately 75 tons of petroleum, oil, and lubricant-contaminated soil;
- Designing and constructing a landfill cap;
- Surveying all test pit and trench corners, sample locations, drum locations, pre- and post landfill cap elevations, and landfill cap boundaries; and
- Stabilizing and revegetating disturbed areas.

Descriptions of field activities completed are described in Section 5.0. Pre- and post-removal photographs at these locations are shown in Appendix A.

3.2 CONTRACT LINE ITEMS

The USACE identified the work to be conducted as a series of Base and Optional Contract Line Item Numbers (CLINs). Optional CLINs identified unit priced work performed in addition to that identified in the Base CLINs. The USACE awarded the Base and Optional CLINs to Bristol on March 31, 2009. The Base CLINs are summarized in Table 3-1 and Optional CLINs are summarized in Table 3-2.

The actual quantities of work performed are also summarized in Tables 3-1 and 3-2. As described in Section 3.3, the USACE adjusted the price per cubic yard of borrow material under Modification P00001.

1 **Table 3-1 Base CLINs**

Base CLINs	Description	Awarded	Actual
0001AA	Phase 1 In-Situ Chemical Oxidation	1 lump sum	1 lump sum
0001AB	Site 7 Drum Removal/Landfill Cap	1 lump sum	1 lump sum
0001AC	Site 7 Drum Removal/Landfill Cap Liquid Disposal Costs	2,500 gallons	1,950 gallons
0001AD	Site 7 Drum Removal/Landfill Cap Soil Disposal Costs	75 tons	75 tons
0001AM	Site 7 Drum Removal/Landfill Cap Additional Waste Disposal Costs	1 lump sum	1 lump sum

2 Notes:

CLINs = Contract Line Item Numbers

3 **Table 3-2 Optional CLINs**

Option/Item	Description	Quantity per Option	Number of Options Available	Options Exercised
Option Task 1/ 0001AE	Additional drums containing POL liquids	50 gallons	10	0
Option Task 2/ 0001AF	Additional contaminated soil - nonhazardous POL	5 tons	10	6
Option Task 2/ 0001AG	Additional contaminated soil - PCBs	5 tons	10	0
Option Task 2/ 0001AH	Additional contaminated soil - hazardous	5 tons	10	0
Option Task 3/ 0001AJ	Batteries	25 pounds	5	14
Option Task 3/ 0001AK	Transformers	250 pounds	5	0
Option Task 4/ 0001AL	Additional test pits	1	10	0
Option Task 3/ 0001AM	Additional waste	1	1	1

4 Notes:

CLINs = Contract Line Item Numbers

PCBs = polychlorinated biphenyls

POL = petroleum, oil, and lubricants

1 **3.3 PROJECT MODIFICATIONS**

2 There was one modification to the contract, as follows:

- 3 • P00001: Adjusted the price of the contract to include revisions related to changes in
4 equipment, labor costs, actual waste disposal costs, and the per cubic yard of borrow
5 pit material that was used to cap Site 7.

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4.0 PROJECT PLANNING, KEY PERSONNEL, AND SUBCONTRACTORS

4.1 PROJECT PLANNING

Project planning began on March 31, 2009, when Bristol received the USACE's Notice to Proceed for the project. The following sections describe the planning documents prepared for this project (Section 4.1.1) and the deviations from the planning documents (Section 4.1.2) that occurred in the field.

4.1.1 Planning Documents

The following planning documents were prepared by Bristol and approved by the USACE:

- Work Plan (WP);
- Sampling and Analysis Plan (SAP);
- Contractor Quality Control Plan (CQCP);
- Storm Water Pollution Prevention Plan;
- Site Health and Safety Plan (SHSP); and
- Waste Management Plan (WMP).

Revision 0 (draft) planning documents were submitted to the USACE on May 20, 2009.

Revision 1 documents (final) were submitted on July 24, 2009. A Kickoff Meeting was held in the USACE, Alaska District office on April 14, 2009.

4.1.2 Deviations from the Planning Documents

Differing site conditions necessitated some deviation from the planning documents.

Descriptions of the significant deviations from the planning documents follow:

- **Work Site Locations** – Two sites were constructed in different areas than indicated in the WP. The Hazardous Waste Accumulation Point (HWAP) was located to the northeast of Site 7, instead of to the southwest as indicated on WP figures. The borrow source was located in the valley above the old White Alice site, to the southeast of the originally planned borrow source location.
- **Potholes** – The Scope of Work did not require Bristol to excavate potholes at the Site 7 Landfill, but after observing the site, the decision was made by the Site Superintendent that excavating potholes would help to further delineate the extent of debris and buried drums in the landfill.

- 1 • **Drum Cleaning/Disposal** – During the course of fieldwork, it became apparent that
2 more drums were being pulled and needing to be cleaned than originally proposed.
3 The scope originally outlined the disposal of fifty 55-gallon drums. The first fifty 55-
4 gallon drums that were removed from the landfill were drained, cleaned, and
5 containerized for disposal. Beyond this number, excess drums were placed back into
6 the landfill following cleaning. Some drums were discovered in the landfill that were
7 in poor condition and contained a thick, non-liquid sludge. These drums were wiped
8 with absorbent pads, filled with Oil Dry[®] and returned to the landfill. The absorbent
9 pads were consolidated in drums with other oily materials, including other absorbent
10 pads and personal protective equipment (PPE), and shipped off-island for disposal.
- 11 • **Drum Transport** – Drums were not transported to the HWAP from Site 7 on a flatbed
12 truck, but were instead hauled using a CAT 287B Skid Steer or a CAT 460 extended
13 boom forklift.
- 14 • **Drum Waste Accumulation** – The WP stated that some drums in poor condition
15 would be pumped in situ into a new drum before transport to the HWAP. In the field,
16 it was discovered that the consistency of the product contained in these drums was
17 very thick. Due to this high viscosity, pumping was slow and prone to complications.
18 A few drums were pumped in situ during the early removal stages, but the method was
19 eventually abandoned and all waste accumulation occurred at the HWAP.
- 20 • **Wastewater Treatment and Discharge** – The WP indicates that one wastewater
21 impoundment was to be implemented at NE Cape. The final treatment system
22 consisted of four impoundments and three water scrubbing systems. Water was
23 discharged twice and thus had to be sampled twice. Since the discharge took place
24 before any soil waste characterization results had been received, the wastewater
25 samples were analyzed for a wide range of contaminants. The WP stated that the soil
26 analytical results would influence the treated wastewater analyses. The WP stated that
27 turbidity would be within 5 nephelometric units of the source water. Since the
28 discharge was over land, this criterion was not necessary.
- 29 • **Field Screening** – The WP originally called for a field-screening sample to be
30 analyzed from a composite collected from five drums, but due to the low volumes of
31 liquid being recovered, the decision was made to field screen each drum individually
32 with a Chlor-D-Tect[®] kit.
- 33 • **Oil/Water Separator** – Bristol took an oil/water separator to the NE Cape site, but
34 was unable to get it to function properly. As an alternative, wastewater was pumped
35 into a 300-gallon cube container and manually separated.
- 36 • **Additional Wastes** – Throughout the drum removal, a number of batteries and
37 polychlorinated biphenyl (PCB)-containing light ballasts were discovered in quantities
38 significantly above those initially anticipated in the contract options. These items
39 were recovered, containerized, and properly disposed of. The contract was amended
40 as necessary.

4.1.3 Permits and Regulatory Notifications

The federal and state permits that were required for this project were included in the WP. The following permits and regulatory notifications apply to the 2009 activities at the St. Lawrence Island NE Cape Site In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap project:

- State of Alaska Division of Mining, Land and Water, Water Resources Section. Received an amendment to fish habitat permit FH09-III-0103 on June 5, 2009, to authorize withdrawal of up to 3,000 gallons of water a day from the Suqitugneq River.
- The Department of Natural Resources, Division of Mining, Land and Water “Letter of Entry” awarded to the USACE, granting authorization to enter upon state tidelands for the express purpose of conducting barge landings for the continued assessment and cleanup of the NE Cape.
- State of Alaska, Department of Fish and Game Fish Habitat FH09-III-0102 issued on April 22, 2009, for Equipment Stream Crossing, Northeast Cape White Alice Site Removal Action (St. Lawrence Island), T25S, R54W, Quangeghsaq River.
- Alaska Department of Environmental Conservation Wastewater Discharge Authorization issued a State of Alaska Wastewater General Permit 2009DB0004 on March 19, 2009.
- Department of the Army U.S. Army Engineer District, Alaska Regulatory Division issued on June 30, 2009, a Nationwide Permit (NWP) No. 38, Cleanup of Hazardous and Toxic Waste.
- United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service.
 - A clearance letter concurring with Bristol’s findings that project activities would not interfere with endangered species in the project area.
- Department of the Army Right of Entry for Environmental Assessment and Response for St. Lawrence Island, Alaska Property Identification Number DACA85-08-0134 between the USACE and Kukulget Incorporated and Sivuqaq Incorporated, dated June 17, 2009.
- State of Alaska Department of Natural Resources, Division of Parks and Outdoor Recreation, Office of History and Archaeology; File No.: 3130-1R COE/Environmental 3330-6N XSL-060 on July 2, 2009.
 - A clearance letter concurring with Bristol’s findings that no historic properties would be adversely affected by the NE Cape project.
- United States Department of the Interior Fish and Wildlife Service, May 13, 2009.

- 1 – A clearance letter concurring with Bristol’s findings that the proposed action at NE
2 Cape is not likely to adversely affect listed species, or adversely modify critical
3 habitat.

4 Copies of the permits were included in the WP.

5 **4.1.4 Borrow Material**

6 Bristol used 28,824 cubic yards of borrow material from the borrow area to cap the Site 7
7 Landfill. Included in this volume are minor amounts of material that were used to make road
8 repairs around the NE Cape work sites. Bristol operated the borrow area and purchased
9 borrow material from Kukulget, Inc., and Sivuqaq, Inc., at a royalty price of \$10.00 per cubic
10 yard.

11 **4.2 KEY PERSONNEL**

12 Bristol’s organization chart for the project is shown on Figure 3. The project duties assigned
13 to key home office and field management personnel are described in the following sections.

14 **4.2.1 Key Home Office Personnel**

15 **Project Manager, Ms. Molly Welker**

16 Ms. Molly Welker, the Project Manager (PM), was responsible for ensuring project tasks
17 were completed on schedule and within budget, recommending and justifying project
18 modifications, implementing methods of tracking materials and resources, coordinating work
19 with subcontractors, and complying with normal safety procedures and regulatory
20 requirements.

21 **Health and Safety Manager, Mr. Clark Roberts, C.I.H.**

22 Mr. Clark Roberts, Certified Industrial Hygienist (C.I.H.), reviewed the Safety and Health
23 Program for this project. He worked with Bristol’s Site Safety and Health Officer (SSHO) to
24 monitor project compliance with Bristol’s Corporate Safety and Health Program and the
25 SHSP.

**Regulatory Compliance Manager and Transportation and Disposal Coordinator,
Mr. Tyler Ellingboe**

Mr. Tyler Ellingboe was responsible for overseeing regulatory compliance for identifying, handling, packaging, manifesting, transporting, and disposing of wastes generated on the project. He worked with the Site Superintendent and the PM to track waste shipments.

Chemical QC Officer and Project Chemist, Ms. Julie Sharp-Dahl

Ms. Julie Sharp-Dahl reviewed all chemical quality control (QC) activities for this contract, and served as Bristol's technical expert for issues related to chemistry and sampling analysis.

4.2.2 Key Field Personnel

Site Superintendent/SSHO, Mr. Charles (Chuck) Croley

Mr. Chuck Croley was responsible for managing, scheduling, coordinating, and executing all of Bristol's on-site activities. He reported directly to the PM. Mr. Croley was also responsible for overseeing the activities of Bristol's subcontractors on site.

Contractor Quality Control Systems Manager (CQCSM), Mr. Russell James

Mr. Russell James was responsible for management of Contractor Quality Control (CQC) and had the authority to act in all CQC matters for the project. He worked with the Site Superintendent and the PM to implement the CQCP. Mr. James was Bristol's liaison with the USACE's Quality Assurance Representative (QAR). Copies of all daily QC reports are presented in Appendix B.

Environmental Sampler, Mr. Eric Barnhill

Mr. Eric Barnhill was the ADEC-Certified Environmental Sampler for collection and processing of environmental samples. He was the primary point of contact for environmental matters in the field, and was involved with all activities related to environmental sampling. Copies of field notes are presented in Appendix C.

4.3 SUBCONTRACTOR SUMMARY

Bristol's major subcontractors for the project are listed in Table 4-1.

Table 4-1 Major Subcontractors for the In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap Project

Subcontractor	Assignment
AECOM	ISCO treatability and bench scale study
Bering Air	Aircraft charters
Denali Drilling	Drilling services
Eco-Land, LLC.	Surveying
Emerald Alaska, Inc.	On-site hazardous waste management and disposal
Fairweather, Inc.	Infirmity and emergency medical services
Global Services, Inc.	Camp services
Northland Services, Inc.	Marine transportation
Waste Management, Inc.	Solid, RCRA and TSCA soil disposal
TestAmerica Laboratories, Inc.	Fixed-based analytical testing laboratory

Notes:

ISCO = in-situ chemical oxidation

RCRA = Resource Conservation and Recovery Act

TSCA = Toxic Substances Control Act

5.0 FIELD ACTIVITIES

5.1 PROJECT LOGISTICS

5.1.1 Mobilization/Demobilization

Mobilization began in April 2009 with the staging of specialized equipment, material, and shipping containers (Conexes) in Alaska, and in the continental United States. Items purchased outside of Alaska were consolidated in Seattle, Washington, and transported by Northland Services, Inc. (NSI), to Anchorage, Alaska, in May 2009. These items were consolidated with the heavy construction equipment, the construction camp, fuel, and other items assembled by Bristol in Anchorage. Over 700 tons of freight was loaded onto two NSI barges at the Port of Anchorage between May 7 and May 16, 2009. The barges departed Anchorage on May 27, and arrived in Nome, Alaska, on June 15, 2009. Landing craft were used for hauling between Nome and Cargo Beach for final delivery of freight. The first landing craft arrived at Cargo Beach on the evening of June 24, 2009. The Cargo Beach landing location is marked on Figure 4, along with all other NE Cape work sites utilized during the project.

Bering Air, Inc. (Bering Air) made reconnaissance flights to the NE Cape site on June 13 and 18, 2009. The purpose of the reconnaissance flights was to assess whether the sea ice in Kitnagak Bay would allow the landing craft to land at Cargo Beach, and to assess the condition of the airstrip. Based on the observations made during these flights, Bristol, in consultation with NSI, decided to move the landing craft to Kitnagak Bay and land on Cargo Beach on June 24, 2009.

Five Bristol personnel arrived on June 25, 2009, to rendezvous with the landing craft and begin off-loading. A total of four landing craft hauled equipment to NE Cape. The final three shipments arrived in NE Cape on June 27, 2009. Off-loading of all the freight was completed on June 27, 2009.

Global Services, Inc. (Global), arrived on June 29, 2009, to begin construction of the camp. The temporary construction camp was assembled and operational by July 8, 2009.

Additional personnel arrived frequently during the period July 6 through July 10, 2009. By July 8, 2009, Bristol had completed improvements to the roads and set up of the following project support units:

- Temporary construction camp;
- Communications equipment;
- Medical facility; and
- Fuel containment cell.

Removal work began on July 12, 2009, at the Site 7 Landfill. Mr. Will Mangano, the first USACE QAR, arrived on July 13, 2009. At that time, there were approximately 22 personnel in camp, working on the project.

Demobilization began on August 14, 2009, when a portion of the field crew left the island. Worker numbers gradually declined between August 14 and August 20, 2009. Additional crew members from Global arrived on August 16, 2009, and began deconstructing the camp. Field activities were completed and the temporary construction camp was shut down on August 21, 2009. As part of the demobilization activities, all of the equipment, camp units, and waste containers were staged on Cargo Beach for barge loading by August 21, 2009. The landing crafts arrived on August 21. All freight was loaded and off-island by August 22, 2009. The remaining members of the field crew were transported via Bering Air to Nome, Alaska, on August 22, 2009.

After the demobilization, three additional flights were taken to NE Cape to conduct performance monitoring and collect samples for the ISCO study. The day 14 ISCO sampling event occurred on August 25, 2009. Three personnel flew to the island on a Bering Air flight from Nome and performed the necessary work during the course of one day. A four-person crew returned to NE Cape again on September 11, 2009, to perform the day 28 ISCO sampling event. Again, the crew utilized Bering Air for transportation to the island and performed all necessary work in one day. The final demobilization occurred on September 14, 2009. Two personnel chartered a Bering Air flight to NE Cape to retrieve the final bit of equipment that remained on the island. The Bristol crew loaded one Arctic Cat[®] ATV, one Knaack[®] toolbox, and other miscellaneous supplies into a CASA aircraft and transported the

cargo to Nome, Alaska. From Nome, equipment was shipped to Anchorage, Alaska, via Northern Air Cargo.

5.1.2 Equipment Used

The major equipment used by Bristol and its subcontractors is presented in Table 5-1. The equipment was serviced, maintained, and repaired on site by a heavy equipment mechanic.

Table 5-1 Major Equipment List

No. of Units	Description	No. of Units	Description
1	White GMC crew cab, gas, long box, with a gas service tank	2	Arctic Cat side by side
1	White Chevy, duramax diesel, crew cab, short box with cover	1	Cat 322BL excavator
1	White Chevy 2500, extended cab, gas, short box, diesel service tank	2	IR Light Tower
1	White Chevy, extended cab, gas, long box, with black rack	1	Frost Fighter Heater
1	White Chevy Blazer, gas	1	IR 60KW Generator
1	White GMC diesel, (BDBL) crew cab, longbed, white rack	1	Volvo 330L loader/forklift
1	Red GMC, crew cab, long box diesel	2	Volvo A40D rock truck
1	Ottawa Yard Goat, fifth-wheel tractor	2	287B Skid Steer
1	International s4700 fuel/lube truck	1	Compressor with engine (mechanics truck)
1	Ford F700 mechanic truck with compressor, welder, hydraulic boom	1	Welder (mechanics truck)
1	Kaiser Jeep 6X6 Cargo Truck with water tank	1	Compressor with engine (fuel/lube truck)
1	Cat 988B loader, with bucket and forks	1	DeWalt compressor with engine
1	Cat 160H motor grader	2	DeWalt electric compressor
1	Cat 460 TH extended boom forklift	2	DeWalt generator
1	Cat D6T dozer	1	Generac generator 6kw
1	Cat D8N dozer	1	Zaxis 120 excavator

Notes:

ATV = all-terrain vehicle kw = kilowatt

5.1.3 Temporary Construction Camp

The temporary construction camp was set up on an existing gravel pad adjacent to the airstrip, and was designed to house approximately 35 people. It consisted of 11 individual Weatherport® tents, each capable of housing four people. The camp was configured so that none of the modules were less than 250 feet from the centerline of the airstrip. Photographs of the temporary construction camp are shown in Appendix A.

Camp facilities included shared sleeping quarters; a medical dispensary; a recreation room; a dining facility; showers, laundry, and toilet facilities; a food storage Conex; satellite telephone and television system; and offices for Bristol, AECOM, and USACE personnel. A medic/EMT III was on site at all times in order to provide emergency medical services. The camp was operated between July 7 and August 20, 2009. There were, on average, 20 people in camp daily during this period.

5.1.4 Borrow Area

Borrow material used at the project site was obtained at the borrow area located approximately 2,000 feet south-southeast of the former White Alice Antenna Array. A total of 28,824 cubic yards of material was removed over the duration of the project. Material was used primarily for the landfill cap, although minimal amounts were used for road repair. No crushing or sizing of the material was performed. No sampling or analysis of borrow material was performed.

5.1.5 Access Improvements

5.1.5.1 Existing Road System

Approximately four miles of gravel road connected the various work areas at the site. The roads were generally in good condition and only required grading and minor backfilling to re-establish and maintain their usability. Bristol used a water truck on site to periodically suppress dust. The water withdrawal area is labeled on Figure 4.

There are four stream crossings, consisting of three culverts and one bridge, within the work areas at NE Cape. Access improvements along the road system were initiated upon arrival

and continued as needed during the project. Road repair and improvements were generally minor. Roads and stream crossings were not removed.

5.1.5.2 Landfill Access Road

During excavation of the landfill and hauling activities, a temporary road was constructed along the perimeter of the landfill. This road aided haul trucks in accessing stockpile locations, as well as facilitating access for pickup trucks and equipment to work areas at Site 7. The majority of this road was left in place and eventually incorporated into the landfill cap.

5.1.6 Air Support

Security Aviation, of Anchorage, Alaska, and Bering Air, of Nome, Alaska, provided air support services during the 2009 summer season. A Cessna Conquest, owned and operated by Security Aviation, was used to transport USACE personnel in order to comply with Public Law 99-661 and Department of Defense Directive 5500.53. Passenger flights for non-USACE personnel were typically made using King Air, Beech, or Navajo aircraft, owned and operated by Bering Air. Over 40 round-trip flights were chartered during the 2009 summer season.

5.2 HEALTH AND SAFETY

The safety and health management and communications system for NE Cape was established immediately upon the arrival of Bristol personnel on the island on June 25, 2009.

Regular and continual communication regarding safety issues was provided and maintained with the USACE QAR, the Bristol Site Superintendent/SSHO, CQCSM, and the Bristol PM.

Field personnel, subcontractors, government personnel, and visitors were provided a briefing by the SSHO or administrative assistant immediately upon arrival. Daily Toolbox Safety Meetings were held each morning prior to commencing work.

Part of Bristol's safety routine involved the daily Toolbox Safety Meeting, held each morning before starting work. These meetings were about project-related work to be performed each day at the NE Cape Site. Minimum safety gear for all personnel included: hard hat, reflective vest, steel-toe boots, safety glasses, and work gloves.

On a daily basis, the level of subcontractor involvement at NE Cape was high. Bristol, AECOM, and Global closely coordinated operations in all areas. Key subcontractor involvement with all parties included complying with one SHSP that covered all workers. All workers, including subcontractor workers, attended the mandatory daily Toolbox Safety Meetings. This included subcontractor workers assigned to NE Cape for short, or even overnight durations, such as surveyors, communication technicians, and laborers.

The Bristol SSHO performed safety and health “walkthrough” inspections each day at the site. The purpose of these inspections was to keep abreast of current site activities and conditions, look for existing or potential site safety issues/concerns, ensure appropriate use of PPE, and to reinforce safe work practices. The daily safety inspections also provided topics/information for incorporation into the daily Toolbox Safety Meeting to keep the subject matter relevant to NE Cape conditions. In particular, issues such as high wind conditions, slippery step conditions, and equipment safety, were duly noted and presented at the morning safety meetings.

In all, Bristol developed nine Activity Hazard Analyses (AHAs) for specific tasks and operations at NE Cape. The AHAs were presented in the SHSP, and are the following:

- Debris Removal and Staging,
- Drum Collection and Processing,
- Grass Seeding and Site Restoration,
- Stained Soil and PCB Soil Removal and Disposal,
- Barge Loading and Unloading Operations,
- Fueling of Vehicles and Equipment,
- Oxidant Solution Mixing and Injection,
- Chemical Handling, and
- Drilling and Sampling.

During work on site, one work-related first-aid case was treated and logged by the on-site medical personnel. It involved a worker who had hyper-extended his thumb while attempting to crank an air compressor. The minor incident was treated on site by the medic, and the worker returned to working duties. Bristol invested over 13,582 man-hours during this

project without a lost-time or Occupational-Safety-and-Health-Administration-recordable accident.

5.3 INTRUSIVE DRUM REMOVAL

The original SOW included exposing debris and trenching the landfill in areas where geophysical investigations were previously conducted in order to locate, clean, and remove drums. Bristol's specific procedures are described in the subsections below.

5.3.1 Mapped Metallic Anomalies

A geophysical investigation was performed in 2007 at the Site 7 Landfill by R&M for the USACE. Bristol was furnished the geophysical investigation results and incorporated it into a Global Positioning System (GPS) unit. Using the GPS unit, Bristol was able to navigate to the magnetically anomalous locations indicated on the geophysical investigation. These were the areas demonstrating the highest probability of containing drums. Additionally, these were the areas in which Bristol focused its debris exposure, trenching, and excavation activities. Figure 5 shows the locations of magnetic anomalies at Site 7.

5.3.2 Potholing

Prior to debris exposure activities, Bristol made the decision to use a potholing method to provide information, in addition to the magnetic survey, on where the debris and drums were located within the landfill. Bristol utilized a CAT322 excavator to dig 72 shallow "potholes" across the entire surface of the landfill. The potholes were dug in areas both within and outside of the magnetic anomaly areas. The pothole locations were surveyed during the pre-construction survey and are depicted in Figure 5.

5.3.3 Landfill Debris Exposure

The initial step in locating drums involved shallow excavations in the areas containing the magnetic anomalies. Bristol uncovered the top 1 foot of material in all of these areas. This initial excavation helped to define the locations that would require further excavation/trenching and aided in excluding areas which would require no further excavation activity. During this phase of work, it became apparent to Bristol that the majority of remaining excavations would be focused along the perimeter of the landfill. On the highest

sections of the landfill hill, Bristol discovered metallic surface debris, such as Marston matting and piping, but buried debris and/or exposed drums were minimal or non-existent.

In some areas containing magnetic anomalies, it was very apparent where drums were located because portions of drums were exposed at the surface. This was characteristically observed along the slopes of the landfill perimeter.

5.3.4 Test Pit and Trenching Excavation

The next step in locating buried product involved excavating trenches and test pits where surface exposures suggested the presence, or likelihood, of drums. Bristol excavated eleven test pits or trenches across the surface of the landfill during the course of fieldwork. The locations of the trenches are depicted on Figure 5. These locations were surveyed by Eco-Land, LLC, upon completion of the landfill cap.

Due to the arrangement of buried debris and drums in the landfill, many of these test pits grew larger and larger throughout the drum removal process, eventually becoming one massive excavation. The drum removal excavation will be discussed in Section 5.3.6.

5.3.5 Hazardous Waste Accumulation Point

The HWAP served as the oil transfer, drum cleaning, and the waste consolidation point. All product-containing drums recovered from the landfill were transported to the HWAP for some aspect of post-recovery treatment. Wastewater, created during the washing process, was treated at the HWAP and will be discussed in detail in Section 5.3.8. The HWAP contained supply Conexes, wastewater containments, water scrubbers, and drum cleaning and transfer equipment, and served as the main staging facility for recovered drums.

Field screening was performed at the HWAP, and will be discussed in Section 5.4.1. Soil samples were collected from the HWAP and are detailed in Section 5.4.2. The HWAP is depicted in Figure 6.

5.3.6 Drum Removal

Drum recovery occurred between July 12, 2009 and August 3, 2009. During this time, Bristol recovered and processed a total of 182 drums from the Site 7 Landfill.

1 The recovery process involved an equipment operator, environmental professional(s), and
2 drum-handling personnel. The excavations were done in areas where drums had previously
3 been identified through various means, including geophysical survey, surface observation, test
4 pits, trenches, and shallow excavations.

5 Using a Hitachi 120 excavator, the operator carefully and methodically unearthed debris until
6 a drum was uncovered and accessible. Upon discovery of a drum, the environmental
7 professional would inspect the contents and assess the drum. Drums were inspected visually
8 and with the aid of a drum thief. If the drum was empty, then it was set aside with the other
9 debris and the excavation continued. If liquid product was encountered in the drum, then it
10 was prepped for transport to the HWAP for processing.

11 Transportation consisted of a CAT 287B skid steer with forks that hauled a tote which
12 contained the recovered drums. A tote was capable of carrying two drums. The drums were
13 loaded into the totes using the excavator bucket and thumb, excavator bucket with sling
14 attached, or by drum-handling personnel lifting the drum and placing it into the tote. Each
15 filled tote was hauled to the HWAP and the drums were then staged for cutting, cleaning, and
16 disposal.

17 Most drums encountered were in poor condition, containing holes, rust, and bends and creases
18 in the metal. The condition of the drums was such that, occasionally, product was leaked onto
19 the soil. Consequently, this soil mandated removal. Stained soil removal is discussed in
20 Section 5.3.9.

21 The excavation progressed throughout the landfill to cover all areas in which drums resided.
22 Excavations began on the south side of Cargo Beach Road, eventually moving across the road
23 and unearthing all areas believed to contain drums. The excavated areas can be seen on
24 Figure 5. Prior to field investigations, it was thought that the drums might be encountered in
25 one large cache. This proved not to be the case. Drums were scattered fairly evenly
26 throughout the debris and were encountered frequently during the excavation process. The
27 distribution of the drums contributed to wide areas of excavation. Essentially, every area of
28 debris required excavation due to the high probability of encountering drums (this is evident
29 in Figure 5). The extent of the excavation is shown on Figure 7.

5.3.7 Drum Decommissioning and Waste Accumulation

The basic processes involved with decommissioning a drum consisted of opening the drum, removing product, and washing and disposing of the drum. Drum condition and product viscosity dictated the procedures for opening each drum and consolidating the wastes.

Due to the nature of the product and the condition of the drums, many drums had to be cut open to facilitate access and collection of product. The high viscosity of product made pumping a slow and difficult process. Multiple methods were implemented during product recovery, depending on the nature and conditions of the drums and product.

Low-viscosity liquids that were capable of being pumped from the recovered drums were transferred directly into new, clean accumulation drums. In cases where low-viscous product leaked into a transport tote, the product was pumped from the tote into an accumulation drum.

High-viscosity product posed more challenges during recovery and accumulation. If the product was relatively clean and capable of being pumped, then it was pumped directly from the recovered drum (or transport tote if product leaked into the tote) into an accumulation container. In instances where the product was gritty or dirty, it was shoveled into an open-top drum and consolidated with similar product.

Drums and totes were washed with a high-pressure hot water rinse. The cleaning occurred inside an open-top Conex. The top cover of the Conex was removed and the end doors were opened. The primary function of the Conex was to prevent windblown spray from being dispersed across the HWAP surface soil. The wash area Conex was slightly elevated on one side to direct the flow of wash water out of the Conex and into the lined containment area. Oil absorbent pads and booms were set up in the lined containment area to assist in the removal of product from the wash water. This wash water was then treated through a series of wastewater treatment systems. Wastewater treatment is detailed in Section 5.3.8.

A lined Conex was staged at the HWAP and used for the containerization of cleaned drums. Following cleaning, drums were transferred to this Conex for transportation to the appropriate disposal facility. As outlined in the SOW, fifty drums were containerized for transport and disposal in this lined Conex. Drums beyond the initial fifty were cleaned, crushed, returned to

the landfill, and covered and capped with the rest of the landfill debris. This method was described to the USACE in Serial Letter H-0006, dated July 27, 2009.

5.3.8 Wastewater Treatment

The drum-washing procedures generated oily water, which required treatment prior to discharge. Over time, water and oil would collect in the lined containment area surrounding the wash Conex. Preliminary measures were taken to reduce amounts of product contained in the water by setting up absorbent pads and booms in the water flow paths. Liquid accumulated in a corner of the containment area, and was treated when manageable volumes were achieved.

The first step in the treatment process involved separating the oil and water mixture. Bristol mobilized with an oil/water separator, but was unable to get the equipment to function properly given the nature of the fluid. As an alternative, the mixture was pumped into a 300-gallon water cube and allowed to settle. Once the oil and water phases had separated, the water was drained through a valve located on the bottom of the cube, then through the stage one water scrubber, and into the second containment. The oil/product was then allowed to drain into an accumulation drum. All oil/product was containerized in drums and characterized using Chlor-D-Tect field-screening kits.

Wastewater was passed through two additional water scrubbers into two more containments before finally being discharged to the ground. Two discharges occurred during the 2009 field season at NE Cape. Approximately 8,500 gallons of treated wastewater was produced and discharged during field activities. The wastewater was tested according to guidelines set forth in General Wastewater Permit No. 2009DB0004 (Appendix D) and met applicable limitations set forth in Section 1.2.2 of the permit. The permit set forth guidelines of discharge for six effluent characteristics, including turbidity, settleable solids, total chlorine, pH, total aqueous hydrocarbons (TAqH), and total aromatic hydrocarbons (TAH). Treated wastewater was discharged onto inland tundra that was not near a pond, lake, or other water body; thus, turbidity criteria was not an issue. Settleable solids were tested using an Imhoff cone and were not evident above 0.2 milliliters per liter. The pH was 7.02, which is between the allowable low of 6.5 and the allowable high of 8.5. Laboratory results for chlorine were acceptable for dispersal, as were results for TAH at less than 10 micrograms per liter ($\mu\text{g/L}$).

Results for TAqH were less than 15 µg/L. Wastewater sampling procedures are detailed in Section 6.2.

5.3.9 Stained Soil Removal

The high viscosity of the vast majority of product alleviated complications due to leaking, but due to the poor condition of the drums, there were some instances when liquid spilled onto the surrounding soil. Bristol remediated these leaks by excavating and removing the affected soil. In addition to drum leaks during excavation activities, Bristol removed soil which visually appeared to have been stained. Stained soils were removed using the bucket of the Hitachi 120 excavator, and placed directly into lined open-top Conexes. Seven Conexes were filled with stained soil from Site 7 during the course of the 2009 field season. Full Conexes were staged on Cargo Beach near the barge loading area.

5.3.10 Removal of Additional Waste Streams

During the excavation, Bristol encountered additional potential contaminants of concern, including PCB light ballasts, batteries, lead debris, and a partially filled drum of antifreeze. Disposal quantities are discussed in Section 5.9.

5.3.10.1 PCB Contaminated Lighting Ballasts

Intact light ballasts were unearthed during drum removal excavation activities. Bristol set the ballasts aside and informed the QAR of their presence. The USACE decided to remove the ballasts from the landfill, at which point they were transferred to the HWAP for containerization. The PCB light ballasts were placed into totes, labeled, and manifested for transportation and proper disposal.

5.3.10.2 Batteries

Options were set up in the SOW to handle five additional units of whole batteries weighing up to 25 pounds each. During the drum removal process, Bristol encountered a number of batteries, broken and intact, that were clearly going to exceed the quantities set forth in the optional CLINs. The QAR was immediately notified and the USACE worked closely with the PM to determine the appropriate course of action for the batteries. The decision was made to recover and dispose of all batteries encountered during the drum removal excavation.

Bristol transported the batteries to the HWAP and containerized intact batteries into open-top drums and broken batteries and lead debris into totes.

5.3.10.3 Antifreeze

One partially filled drum of antifreeze was discovered during the drum removal excavation. The liquid from this drum was transferred into a bung-top drum and staged at the HWAP pending transportation and disposal.

5.4 WASTE CHARACTERIZATION

Waste characterization samples were collected from soil Conexes and drums containing drill cuttings and recovered product. All wastes were appropriately packaged, manifested, and transported for proper disposal. Analytical methods, QC and sample results are presented in subsections in Section 6.0.

5.4.1 Field Screening

Environmental personnel utilized Chlor-D-Tect kits to field screen for chlorinated compounds in the recovered product accumulation drums. Fixed laboratory samples were collected from waste accumulation drums based on field-screening results. If screening results indicated the presence of chlorinated compounds in excess of 1,000 parts per million (ppm), then the drums were considered to have failed the field screening. Each drum that failed the field screening was segregated from drums that passed. At the end of the drum removal process, three drums had failed the field screening and necessitated the collection of waste characterization samples for analysis at a fixed analytical laboratory. Waste characterization procedures for oil are described in Section 5.4.4.

5.4.2 Soil Waste Characterization

A waste characterization sample was collected and analyzed at a fixed analytical laboratory for each Conex that was filled with stained soil during the drum removal. The samples consisted of a composite sample collected from three locations within each Conex. The qualified sampler used a stainless steel hand auger to collect a representative soil sample. One auger barrel full of soil was collected from the middle of the soil pile; one from the edge of the pile; and another from the opposite end of the soil pile. The soil from these three

locations was composited in a mixing bowl prior to being placed into the appropriate sample jars. Decontamination procedures were performed on reusable equipment as outlined in Section 5.5.

5.4.3 Drill Cuttings Waste Characterization

Drill cuttings were produced during the installation of monitoring wells at the MOC. These wastes were containerized and staged at the HWAP. Eleven open-top 55-gallon drums were analyzed for waste characterization purposes. Waste characterization samples consisted of composited soil taken from two sets of four drums. In one composite sample, the composite consisted of soil from one set of three drums. During collection of each sample, the qualified sampler extracted a small amount of soil from each set of four drums and mixed the soil in a stainless steel mixing bowl. The soil mixture was then placed into the appropriate sample jars. Decontamination procedures were implemented for reusable sampling equipment.

5.4.4 Oil Waste Characterization

Drums that failed the field screening were subject to analytical testing for waste characterization purposes. During the 2009 field season, there were three drums that failed field screening. Oil from these three drums was composited into one sample and analyzed off site in a fixed laboratory for proper waste characterization.

A small amount of product from each container was pumped into a stainless steel mixing bowl using a high-density polyethylene (HDPE) drum pump. The qualified environmental sampler filled each appropriate sample jar with the composite sample from this bowl. Excess product remaining in the bowl was returned to the drums, and the bowl was decontaminated. Drum pumps were disposed of into open-top drums with other oily debris.

5.5 DECONTAMINATION

Disposable sampling equipment was used whenever possible, but the use of reusable equipment was also necessary during sampling procedures. Reusable sampling devices included a stainless steel hand auger, stainless steel hand trowel, and stainless steel mixing bowl. Following each sample collection, these items were washed in an Alconox[®] solution,

1 followed by potable and deionized water rinses. Fluids generated during decontamination
2 were added to the containers belonging to the corresponding contaminated media.

3 **5.6 SITE 7 LANDFILL CAP**

4 A significant portion of the fieldwork performed by Bristol in 2009 focused on the
5 construction of a landfill cap at Site 7. Material was hauled from a local source and a cap was
6 constructed across the surface of the landfill following drum removal activities. The
7 following subsections describe multiple processes associated with cap construction.

8 **5.6.1 Borrow Pit and Source Material Hauling**

9 Bristol spent a total of 30 days conducting hauling operations, during which time 1,201 truck
10 loads were transported. Hauling began on June 26, 2009, and was completed on August 12,
11 2009. An estimated 28,824 cubic yards of material were hauled during the course of field
12 work at NE Cape.

13 Hauling operation functioned with one operator at the borrow site and two truck drivers. A
14 CAT D8N dozer was utilized to strip material and push it into place for the loader. A Volvo
15 330L loader with a toothed bucket attachment was used to load the Volvo A40D rock trucks
16 at the borrow site. Upon loading, each truck was driven to the landfill where it dumped its
17 load and headed directly back to the borrow site. Bristol operated two trucks at a time during
18 days when hauling operations were being performed. All traffic utilizing the NE Cape road
19 system yielded to the haul trucks.

20 During drum removal activities, material was stockpiled at the landfill in areas outside and
21 away from the excavation zones. Two stockpiles were created over the course of hauling, and
22 were maintained by an operator in the CAT D6T dozer. When drum removal excavation
23 activities were completed, the material was spread into place from these stockpile locations.

24 **5.6.2 Periphery Debris Cleanup**

25 In an effort to consolidate trash and assist in restoring some of the natural landscape, Bristol
26 implemented a general debris cleanup in the areas surrounding the landfill. Noticeable
27 amounts of various debris and trash were scattered in the tundra around the landfill. Over the
28 course of a few days, one laborer patrolled the area and picked up small-to-moderately sized

pieces of this litter and placed it in the landfill. Types of debris included tires, wood, cans, scrap metal, and rusty drum remnants.

5.6.3 Landfill Cap Construction

Material hauling for the landfill cap began July 8, 2009. Material was initially stockpiled at the landfill in areas that did not coincide with magnetic anomalies. Capping activities began on July 28, 2009, and proceeded until August 14, 2009. The cap was constructed in a piecemeal fashion as drum removal excavation activities were completed.

Capping began on the south side of Cargo Beach Road following drum removal activities. Bristol placed each section of material in a series of four lifts to a minimum thickness of 24 inches above the trash and debris. A lift was spread and repeatedly track-walked with the equipment prior to laying each subsequent lift. Work progressed section by section, until the entire landfill was covered with material.

Appropriate grading was set to ensure minimal erosion of the cap. Grade was set by the dozer operator with oversight from the foreman and site superintendent. Grade played an important role in determining the thickness of the cap. As stated above, the minimum thickness of material overlying trash and debris was set at 24 inches; however, some of these areas required more material in order to set grade. In the locations of the landfill where no debris was encountered, such as the areas not corresponding to magnetic anomalies, material thickness may be less than 24 inches. The thickness in these areas was again dependent on grade, but Bristol was not concerned with maintaining a minimum thickness of 24 inches in non-debris containing locations.

Quality control measures taken in the field to ensure appropriate cap thicknesses over the trash and debris consisted of excavating test pits through the capping material to its interface with the debris. The thickness of the material was noted and fill stakes were placed at all locations that required additional material.

Surveys were conducted before and after the cap's completion, and will be discussed in Section 5.7.

5.6.4 Stabilization and Revegetation

Bristol performed seeding of the landfill cap on August 13, 2009. The landfill cap was revegetated based on recommendations provided by the Alaska Plant Materials Center. The seed mixture consisted of two different native grass species, both of which are adapted to the St. Lawrence Island environment. The seed mixture was proportioned by weight as presented in Table 5-2.

Table 5-2 Seed Mixtures Utilized at Site 7

Common Name	Mixture % by Weight
Tufted Hairgrass	70
Red Fescue	30

Note: % = percent

Seed was applied at a uniform rate of one pound per 100 square feet. Fertilizer was applied at a rate of 450 pounds per acre, and had a nitrogen-phosphorus-potassium ratio of 20 percent nitrogen; 20 percent phosphorus; and 10 percent potassium. Bristol did not apply water to seeded areas; however, seeding was conducted during days of light precipitation. As of September 11, 2009, germinated grass seed had emerged and was growing on the landfill cap.

5.7 SURVEYING

Eco-Land, LLC, performed surveying duties for Bristol during this project. The preconstruction survey work was performed during the period of July 6 through July 7, 2009. During this period, Eco-Land established a control point using a GPS base station. The survey crew collected locations of existing monuments that could be found around the site, so that older survey drawings could be associated with new survey data and more accurately geo-referenced. Eco-Land created a network of random survey points that were used to create an as-built drawing of preconstruction conditions that existed at Site 7.

Eco-Land returned again during the period August 17 through August 18, 2009. The survey crew reestablished control via the base station and collected post-construction topographic data at Site 7. In addition to Site 7, the crew spent time surveying the MOC, concrete foundations, existing control points, monitoring wells, and a variety of other features useful

for general mapping purposes. An as-built drawing was prepared for Site 7, and is included in Appendix E along with survey data summary tables.

5.8 INCIDENTAL WASTES

Bristol experienced a hydraulic line failure on a Volvo 330L loader while loading material into a rock truck at the borrow site. The broken line resulted in the release of approximately 15-20 gallons of petroleum-based hydraulic fluid to the surrounding soil. Bristol responded immediately by over-excavating the affected area using shovels and an excavator bucket. Free liquids were absorbed with absorbent materials on hand. The soil initially was placed into 55-gallon drums, but was later transferred into a lined, open-top Conex container.

Bristol's on-site environmental sampler collected six field-screening samples from the excavated area. The soil samples were placed into bags and allowed to volatilize for approximately 20 minutes. Headspace samples were analyzed using a photoionization detector (PID) field screening device. All samples registered a PID reading of zero. The environmental personnel did not observe any signs of staining or fuel odors at the site.

The spill was reported to the ADEC on July 21, 2009, within 24 hours of the incident. The soil from this spill was shipped to Columbia Ridge Landfill in Arlington, Oregon, and disposed of on October 8, 2009. The spill report is provided in Appendix D. A verbal 'no further action' was given to Bristol from Brian Jackson at the ADEC after the spill report was submitted.

5.9 WASTE DISPOSAL

Bristol handled, transported, and disposed of approximately 136.4 tons of nonhazardous waste and 2.7 tons of hazardous waste, for a combined total of 139.1 tons of waste on this project. Wastes were classified in accordance with Title 40 Code of Federal Regulations, Part 261 (40 CFR 261); 40 CFR 761; and 40 CFR 61, Subpart M. Each hazardous waste was evaluated to identify all applicable treatment standards in 40 CFR 268, Land Disposal Restrictions. Wastes shipped off-island were placarded in accordance with 49 CFR 172, Subpart F. Labels and placards were affixed to all sides of the Conex container, which contained the waste drums. Waste types are detailed in Tables 5-3 and 5-4. Waste manifests, waste profiles, bills of lading, certificates of weight and certificates of disposal, are presented in Appendix F.

5.10 INSTITUTIONAL CONTROLS

The final remedy for Site 7 also included deed notation, implementation of land use controls, and visual monitoring. A technical memorandum detailing the excavation and capping activities for ADEC is included in Appendix G. The information sent to ADEC included the post-construction survey of the landfill cap, a diagram of the cap, and a formal request for the ADEC Contaminated Sites Program to approve the closure of the Site 7 Landfill based on the work that was completed in 2009. Site closure will be contingent on a number of factors, the first of which is the approval of this remedial action report, and the second, institutional controls must be coordinated and agreed upon by USACE, ADEC, and the landowner. These institutional controls must then be approved and implemented. A deed notice is one method of institutional control. Once the site is approved for closure the landowners should submit a document to be recorded with their property deed at the Alaska Department of Natural Resources Recorder's Office in Fairbanks, Alaska. The intent of this document will be for an institutional control to limit groundwater use and prevent construction of buildings on top of the landfill. Additional institutional controls include the prevention of excavation into the landfill, as well as maintenance of the landfill cover.

Table 5-3 Nonhazardous Waste Disposal Summary

Waste Type	Final Treatment/Disposal	Disposal Facility	Approximate Disposal Quantity
Petroleum-contaminated soil (Site 7)	Disposal in Subtitle D Landfill	Columbia Ridge Recycling & Landfill Center - Arlington, Oregon	108.1 tons (216,240 pounds)
Petroleum-contaminated soil (Borrow Site)	Disposal in Subtitle D Landfill	Columbia Ridge Recycling & Landfill Center - Arlington, Oregon	16.58 tons (33,160 pounds)
Kitty litter with oil	Disposal in Subtitle C Landfill – Direct Landfill	US Ecology Idaho, Inc. – Grand View, Idaho	8,000 pounds
Ash	Disposal in Subtitle D Landfill – Direct Landfill	US Ecology Idaho, Inc. – Grand View, Idaho	400 pounds
Antifreeze	Recycling	Emerald Services, Inc. – Tacoma, Washington	50 pounds
Lead acid batteries	Recycling/ Reclamation	Emerald Services, Inc. – Tacoma, Washington	350 pounds

1 **Table 5-3 Nonhazardous Waste Disposal Summary (continued)**

Waste Type	Final Treatment/Disposal	Disposal Facility	Approximate Disposal Quantity
Spent granulated carbon	Disposal in Subtitle D Landfill	Emerald Alaska, Inc. – Anchorage, Alaska	25 pounds
Used oil	Energy Recovery/ Fuel Blending	Emerald Services, Inc. Airport Way – Seattle, Washington	5,100 pounds (16 drums)
Oily water	Energy Recovery/ Fuel Blending	Emerald Services, Inc. Airport Way – Seattle, Washington	1,450 pounds (5 drums)
Oil sludge	Energy Recovery/ Fuel Blending	Emerald Services, Inc. Airport Way – Seattle, Washington	1,050 pounds (2 drums)
Solids with PCBs less than 2 ppm (Drill Cuttings)	Disposal in Subtitle D Landfill	Emerald Services, Inc. Airport Way – Seattle, Washington	4,350 pounds (11 drums)
Oily debris	Energy Recovery/ Fuel Blending	Emerald Services, Inc. Airport Way – Seattle, Washington	250 pounds (2 drums)
Empty drums	Recycled	Emerald Services, Inc. Airport Way – Seattle, Washington	2,500 pounds (50 drums)

2 Notes:
PCB = polychlorinated biphenyls
ppm = parts per million

3 **Table 5-4 Hazardous Waste Disposal Summary**

Waste Type	Final Treatment/Disposal	Disposal Facility	Approximate Disposal Quantity
PCB Light Ballasts	Direct Landfill in Subtitle D Landfill	US Ecology Idaho, Inc. – Grand View, Idaho	201 pounds
Lead Debris	Macroencapsulation in Subtitle C Landfill	US Ecology Idaho, Inc. – Grand View, Idaho	4,100 pounds
Used Chlorinated Oil with Lead	Incineration	Clean Harbors (Aragonite), LLC – Aragonite, Utah	1,000 pounds
Methanol and Diesel (AECOM)	Incineration	Clean Harbors (Aragonite), LLC – Aragonite, Utah	10 pounds
Spent Chlor-D-Tect® Test Kits	Incineration	Clean Harbors (Aragonite), LLC – Aragonite, Utah	20 pounds

4 Notes:
PCB = polychlorinated biphenyls

6.0 SAMPLING AND ANALYTICAL METHODS AND RESULTS

6.1 ANALYTICAL METHODS AND SAMPLING PROCEDURES FOR SOIL

Most of the sampling performed in regards to the drum removal/landfill cap were intended for waste characterization purposes, and are described in Sections 5.4.1 through 5.4.4.

Additionally, soil samples were collected at the HWAP to monitor soil quality before and after construction activities.

Soil samples were collected from three locations within the HWAP before and after construction activities. In the planning documents, this area is referred to as the drum pad. Samples were collected with the aid of a stainless steel trowel. Gasoline-range organics (GRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX) samples were collected first at a depth of approximately 18 inches. Twenty-five grams of soil were weighed using an electronic scale, and placed in a 4-ounce jar. Methanol was then added to the jar to serve as a preservative. The sample for diesel-range organics (DRO) and residual-range organics (RRO) was filled following the GRO/BTEX sample by filling one 8-ounce jar with soil from a depth of approximately 18 inches. Finally, a PCB sample was collected from a shallower depth of approximately 2 to 6 inches, by filling a 4-ounce jar. The environmental sampler wore clean nitrile gloves during sampling and followed decontamination procedures between each location.

Table 6-1 provides the analytical methods and parameters analyzed during the 2009 field season.

Table 6-1 Soil Analytical Methods

Sample	Parameter	Analytical Method
HWAP Pre- and Post-Construction Samples (per container)	RCRA Metals, PCBs, DRO and RRO	EPA 6010A/7471, 8082 and AK102/103
HWAP Pre- and Post-Construction Samples (per container)	PCBs	EPA 8081
HWAP Pre- and Post-Construction Samples (per container)	GRO/BTEX	AK 101/ EPA 8260B
Waste Characterization (per container)	PCBs/DRO/ TCLP RCRA Metals	EPA 8082/AK 102/EPA /6010/7471A
Waste Characterization (per container)	TCLP Benzene	EPA 8260B

Notes:

AK	=	State of Alaska Method	HWAP	=	hazardous waste accumulation point
BTEX	=	benzene, toluene, ethylbenzene, and xylenes	PCBs	=	polychlorinated biphenyls
DRO	=	diesel-range organics	RCRA	=	Resource Conservation and Recovery Act
EPA	=	U.S. Environmental Protection Agency	RRO	=	residual-range organics
GRO	=	gasoline-range organics	TCLP	=	Toxicity Characteristic Leaching Procedure

6.2 ANALYTICAL METHODS AND SAMPLING PROCEDURES FOR TREATED WASTEWATER

Water quality parameters were analyzed from the wastewater impoundments at the HWAP in the field, as well as in a fixed laboratory. The environmental personnel on site measured pH, turbidity, and settleable solids, using a variety of field equipment. All wastewater was processed through the multi-stage treatment system. Two sets of samples were collected from the final impoundment prior to discharge events.

Measurements for pH were obtained using an YSI water quality meter. The probe was inserted into the final wastewater impoundment, and readings were recorded upon stabilization of parameters.

Turbidity was measured using a HACH[®] turbidimeter with digital readout. A small vial was filled with a water sample from the final water impoundment, and inserted into the device opening. After a few seconds, the readings from the digital display were recorded in the environmental sampler's field book.

Settleable solids were determined using a one liter plastic Imhoff[®] settling cone. The procedures were as follows:

1. The cone was filled to the one-liter mark with a well mixed sample.
2. The cone was placed vertically in a rack, and the water sample was allowed to settle for forty-five minutes.
3. After 45 minutes, the cone was spun to gently agitate the sample. The cone was then allowed to settle for an additional 15 minutes.
4. The cone was then observed for the presence of settleable solids.

Wastewater samples for BTEX, PCBs, and polynuclear aromatic hydrocarbons were collected from the final water impoundment following the procedures outlined in Section 4.2.6 in the SAP (Bristol, 2009). Table 6-2 identifies the sample parameters and associated methods implemented and analyzed during sample collection.

Table 6-2 Treated Wastewater Analytical Methods

Sample	Parameter	Analytical Method
Treated Wastewater	pH	Field Measured
Treated Wastewater	Turbidity	Field Measured
Treated Wastewater	Settleable Solids	Field Measured
Treated Wastewater	BTEX	EPA 8260B
Treated Wastewater	PAHs	EPA 8270C SIM
Treated Wastewater	PCBs	EPA 8082
Treated Wastewater	RCRA 8 Metals	EPA 6010/7471A
Treated Wastewater	Ethylene Glycol	EPA 8015M

Notes:

BTEX = benzene, toluene, ethylbenzene, and xylenes
 EPA = U.S. Environmental Protection Agency
 PAHs = polynuclear aromatic hydrocarbons
 PCBs = polychlorinated biphenyls

pH = potential hydrogen
 RCRA = Resource Conservation and Recovery Act
 SIM = selective ion monitoring

6.3 ANALYTICAL METHODS FOR WASTES

Field-screening kits were used to characterize the majority of the product recovered from the landfill, but when fixed-laboratory analyses were necessary, the parameters listed in Table 6-3 were analyzed at a fixed-based laboratory.

Table 6-3 Waste Analytical Methods

Sample	Parameter	Analytical Method
Waste	PCBs	EPA 8082
Waste	TCLP VOCs	EPA 8260B
Waste	TCLP 8 RCRA Metals	EPA 6010B/7471A
Waste	Total Halogens	EPA 9056
Waste	Oil Burn Specification (ignitability, total halogens, PCBs, and metals)	EPA 1020A, 9056, 8082, and 6020

Notes:

EPA = U.S. Environmental Protection Agency

PCBs = polychlorinated biphenyls

RCRA = Resource Conservation and Recovery Act

TCLP = Toxicity Characteristic Leaching Procedure

VOCs = volatile organic compounds

6.4 PRIMARY AND QUALITY ASSURANCE LABORATORIES

TestAmerica Laboratories, Inc. (TestAmerica), in Tacoma, Washington, was Bristol's primary analytical laboratory for the project, and analyzed the majority of the project samples. Ms. Terri Torres, the Client Service Manager, acted as the program Laboratory Quality Assurance (QA) Officer for the project. The ADEC Contaminated Sites Laboratory Approval Letter for TestAmerica, Tacoma, is included in Appendix H.

6.5 CHEMICAL DATA QUALITY REPORTING

AECOM has evaluated the project and QA laboratory data, and prepared the Chemical Data Quality Review (CDQR) which is included in Appendix H. The laboratory data presented in the following sections and in Appendix I, have been flagged in accordance with the recommendations presented in the CDQR.

The CDQR found most of the data delivered by the analytical laboratory usable. Some data required qualification due to the results of field QA/QC, laboratory QA/QC, or failure to adhere to method criteria. These have been flagged appropriately. No data were rejected. ADEC Checklists are included in Appendix H.

6.6 SOIL AND WASTEWATER CRITERIA

Refer to Tables 5-6 and 5-7, located in the SAP (Bristol, 2009), for soil and water criteria. The tables have also been included in this report as Tables 6-4 and 6-5.

Table 6-4 PQLs and QC Acceptance Criteria for Soil

Analyte	PQL (µg/kg)	Criteria (µg/kg)	Surr. %R	LCS/LCSD Control Limits	LCS/LCSD RPD Limit	MS/MSD Control Limits	MS/MSD RPD Limit
EPA Method 8260B							
Benzene	16	25	--	75-125	30	75-125	30
Toluene	40	6,500	--	70-125	30	70-125	30
Ethylbenzene	40	6,900	--	75-125	30	75-125	30
p & m-Xylene	40	--	--	80-125	30	80-125	30
o-Xylene	40	--	--	75-125	30	75-125	30
Total Xylenes	--	63,000	--	--	--	--	--
Naphthalene	40	20,000	--	--	30	--	30
Surrogates							
Fluorobenzene	--	--	75-125	--	--	--	--
Toluene-D8	--	--	85-115	--	--	--	--
Ethylbenzene-d10	--	--	75-125	--	--	--	--
Trifluorotoluene	--	--	75-125	--	--	--	--
4-Bromofluorbenzene	--	--	60-120	--	--	--	--

Table 6-4 PQLs and QC Acceptance Criteria for Soil (continued)

Analyte	PQL (µg/kg)	Criteria (µg/kg)	Surr. %R	LCS/LCSD Control Limits	LCS/LCSD RPD Limit	MS/MSD Control Limits	MS/MSD RPD Limit
AK 101							
GRO	4000	300,000	--	60-120	20	60-120	50
Surrogates							
Trifluorotoluene	--	--	50-150	--	--	--	--
4-Bromofluorobenzene	--	--	50-150	--	--	--	--
AK 102/AK 103							
Diesel-Range Organics	20,000	250,000	--	75-125	20	75-125	20
Residual-Range Organics	50,000	11,000,000	—	60-120	20	60-120	21
Surrogates							
o-Terphenyl	--	--	50-150	60-120	--	--	--
n-Triacontane-D62	--	--	50-150	60-120	--	--	--
RCRA Metals – 6010B							
Arsenic	3,000	3,900	--	80-120	35	75-125	35
Barium	500	1,100,000	--	80-120	35	75-125	35
Cadmium	500	5,000	--	80-120	35	75-125	35
Chromium	1,300	25,000	--	80-120	35	75-125	35
Lead	1,500	400,000	--	80-120	35	75-125	35
Silver	1,000	11,200	--	80-120	35	75-125	35

Table 6-4 PQLs and QC Acceptance Criteria for Soil (continued)

Analyte	PQL (µg/kg)	Criteria (µg/kg)	Surr. %R	LCS/LCSD Control Limits	LCS/LCSD RPD Limit	MS/MSD Control Limits	MS/MSD RPD Limit
EPA Method 7471A							
Mercury	20	1,400		75-125	25	75-125	35
EPA 8082							
Aroclor® 1016	10	1,000	--	40-140	20	40-140	20
Aroclor1221	10	1,000	--	--	--	--	--
Aroclor 1232	10	1,000	--	---	--	--	--
Aroclor 1242	10	1,000	--	--	--	--	--
Aroclor 1248	10	1,000	--	--	--	--	--
Aroclor 1254	10	1,000	--	--	--	--	--
Aroclor 1260	10	1,000	--	60-130	20	60-130	20
Surrogates							
Tetrachloro-m-xylene	--	--	45-155	--	--	--	--
Decachlorobiphenyl	--	--	60-125	--	--	--	--

Notes:

Acceptance criteria from TestAmerica, Tacoma

-- = not applicable

%R = percent recovery

RPD = relative percent difference

µg/kg = micrograms per kilogram

AK = Alaska Method

EPA = U.S. Environmental Protection Agency

GRO = gasoline-range organics

LCS = laboratory control sample

LCSD = laboratory control sample duplicate

MS = matrix spike

MSD = matrix spike duplicate

PQL = practical quantitation limit

QC = quality control

RCRA = Resource Conservation and Recovery Act

Surr. = surrogate

Table 6-5 PQLs and QC Acceptance Criteria for Water

Analyte	PQL (µg/L)	Criteria (µg/L)	Surr. %R	LCS/LCSD Control Limits	LCS/LCSD RPD Limit	MS/MSD Control Limits	MS/MSD RPD Limit
TAH	5.0	10.0	--	--	--	--	--
TAqH	13.65	15.0	--	--	--	--	--
EPA Method 8260B							
Benzene	1.0	5.0	--	80-120	30	80-120	30
Toluene	1.0	1,000	--	75-120	30	75-120	30
Ethylbenzene	1.0	700	--	75-125	30	75-125	30
m & p-Xylenes	2.0	10,000*	--	75-130	30	75-130	30
o-Xylene	1.0	10,000*	--	80-120	30	80-120	30
Naphthalene	1.0	730	--	55-140	30	55-140	30
Surrogates							
4-Bromofluorobenzene	--	--	--	75-120	--	--	30
Fluorobenzene	--	--	--	80-120	--	--	30
Trifluorotoluene	--	--	--	80-120	--	--	30
Toluene-D8	--	--	--	85-120	--	--	30
EPA Method 8270C SIM							
Benzo(a)anthracene	0.3	1.2	--	55-110	29	55-110	30
Chrysene	0.2	120	--	55-110	33	55-110	30
Naphthalene	2.0	730	--	40-100	32	40-100	30
Acenaphthylene	0.4	2,200	--	50-105	45	50-105	30
Acenaphthene	0.5	2,200	--	45-110	27	45-110	30
Fluorene	0.3	1500	--	50-110	29	50-110	30
Phenanthrene	0.4	11,000	--	50-115	24	50-115	30

Table 6-5 PQLs and QC Acceptance Criteria for Water (continued)

Analyte	PQL (µg/L)	Criteria (µg/L)	Surr. %R	LCS/LCSD Control Limits	LCS/LCSD RPD Limit	MS/MSD Control Limits	MS/MSD RPD Limit
EPA Method 8270C SIM							
Anthracene	0.2	11,000	--	55-110	28	55-110	30
Fluoranthene	0.25	1500	--	55-115	22	55-115	30
Pyrene	0.3	1100	--	50-130	38	50-130	30
Benzo(b)fluoranthene	0.4	1.2	--	45-120	41	45-120	30
Benzo(k)fluoranthene	0.3	1.2	--	45-125	41	45-125	30
Benzo(a)pyrene	0.2	0.2	--	55-110	27	55-110	30
Dibenzo(a,h)anthracene	0.3	0.12	--	40-125	42	40-125	30
Indeno(1,2,3-c,d)pyrene	0.3	1.2	--	45-125	34	45-125	30
Benzo(g,h,i)perylene	0.3	1100	--	40-125	32	40-125	30
Surrogates							
Nitrobenzene-d5	--	--	40-110	--	--	--	--
2-Fluorobiphenyl	--	--	50-110	--	--	--	--
Terphenyl-D14	--	--	50-135	--	--	--	--
Metals EPA Method 6020							
Arsenic	0.4	10	--	80-120	20	75-125	20
Barium	1.2	2000	--	80-120	20	75-125	20
Cadmium	0.4	5.0	--	80-120	20	75-125	20
Chromium (Total)	0.4	100	--	80-120	20	75-125	20
Lead	0.4	15	--	80-120	20	75-125	20
Selenium	0.4	50	--	80-120	20	75-125	20

Table 6-5 PQLs and QC Acceptance Criteria for Water (continued)

Analyte	PQL (µg/L)	Criteria (µg/L)	Surr. %R	LCS/LCSD Control Limits	LCS/LCSD RPD Limit	MS/MSD Control Limits	MS/MSD RPD Limit
Silver	0.4	100	--	80-120	20	75-125	20
EPA Method 7471A							
Mercury	0.2	2.0	--	75-125	20	75-125	20
AK 101							
GRO	0.05	2.2	--	60-120	20	50-150	50
Surrogates							
Trifluorotoluene	--	--	50-150	--	--	--	--
4-Bromofluorobenzene	--	--	50-150	--	--	--	--
AK 102							
DRO	0.1	1.5	--	75-125	20	61-127	27
Surrogates							
o-Terphenyl	--	--	50-150	--	--	--	--
n-Triacontane-d62	--	--	50-150	--	--	--	--
EPA 300							
Sulfate	0.3	--	--	90-110	--	80-120	20

Table 6-5 PQLs and QC Acceptance Criteria for Water (continued)

Analyte	PQL (µg/L)	Criteria (µg/L)	Surr. %R	LCS/LCSD Control Limits	LCS/LCSD RPD Limit	MS/MSD Control Limits	MS/MSD RPD Limit
EPA 8082							
Aroclor® 1016	0.0005	0.0005	--	25-145	27	25-145	27
Aroclor 1221	0.0005	0.0005	--	--	--	--	--
Aroclor 1232	0.0005	0.0005	--	--	--	--	--
Aroclor 1242	0.0005	0.0005	--	--	---	--	--
Aroclor 1248	0.0005	0.0005	--	--	--	--	--
Aroclor 1254	0.0005	0.0005	--	--	--	--	--
Aroclor 1260	0.0005	0.0005	--	30-145	22	30-145	22
Surrogates							
Tetrachloro-m-xylene	--	--	60-150	--	--	--	--
Decachlorobiphenyl	--	--	40-135	--	--	--	--

Notes:

Acceptance criteria from TestAmerica, Tacoma

*	=	value is for total xylenes	LCSD	=	laboratory control sample duplicate
--	=	not applicable	MS	=	matrix spike
%R	=	percent recovery	MSD	=	matrix spike duplicate
RPD	=	relative percent difference	PQL	=	practical quantitation limit
µg/L	=	micrograms per liter	QC	=	quality control
AK	=	Alaska Method	SIM	=	selective ion monitoring
DRO	=	diesel-range organics	Surr.	=	surrogate
EPA	=	U.S. Environmental Protection Agency	TAH	=	total aromatic hydrocarbons
GRO	=	gasoline-range organics	TAqH	=	total aqueous hydrocarbons
LCS	=	laboratory control sample			

6.7 WASTE CRITERIA

Analytical results for most wastes were below regulatory levels that would qualify the wastes as hazardous. The majority of wastes were classified as nonhazardous or non-regulated wastes, with a few exceptions (Tables 5-3 and 5-4). Waste criteria were based on the following regulations:

- Title 18 of the Alaska Administrative Code, Chapters 60, 61, 62, 75, and 78 – Solid and Hazardous Waste Management, Oil and Hazardous Substance Control, and Underground Storage Tank Regulations;
- Title 29 of the Code of Federal Regulations, Parts 1910 and 1926 (29 CFR 1910 and 1926) – Health and Safety for General Industry and Construction;

- 33 CFR 130 – Financial Responsibility for Water Pollution;
- 40 CFR 60, 61, 260-270, 279, 300-303, and 761 – U.S. Environmental Protection Agency (EPA) – Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response, Compensation, and Liability Act; and Toxic Substances Control Act;
- 46 CFR 150, 151, and 153 – U.S. Coast Guard, U.S. Department of Transportation; and
- 49 CFR 171-178 – Hazardous Materials Transportation.

6.8 HWAP SOIL SAMPLE RESULTS

Preconstruction analytical results indicate DRO and RRO concentrations above site-specific cleanup criteria (Table 1 in Appendix I). Sample 09NC007SB02 contained DRO and RRO concentrations of 14,000 mg/kg and 120,000 mg/kg, respectively; and sample 09NC007SB03 contained DRO and RRO concentrations of 14,000 mg/kg and 130,000 mg/kg, respectively.

Post-construction soil samples taken from the HWAP indicate DRO, RRO, and arsenic concentrations above cleanup criteria (Table 2 in Appendix I). Sample 09NC007SB05 contained RRO concentrations of 77,000 mg/kg, and sample 09NC007SB06 contained DRO and RRO concentrations at 9,500 mg/kg and 80,000 mg/kg, respectively. Post-construction samples were collected from approximately the same locations as the pre-construction samples and indicated that the HWAP did not contribute to the contamination known to exist at Site 6. The BTEX, PCBs, and other metal analyses did not exceed cleanup levels.. Contaminated soil was not excavated from this site during the 2009 field season, but will be removed during field efforts in 2010. An estimated 2,500 tons of contaminated soil will be removed from the HWAP and impoundment areas (Site 6) during 2010 remedial actions. Sampling locations were recorded with a GPS unit following the initial sampling event. The GPS unit was again utilized later in the field season to locate the post-construction samples.

6.9 WASTE SAMPLE RESULTS

6.9.1 Field-Screening Results

A total of 24 liquid-containing accumulation drums resulted from drum removal activities at Site 7. Each of these drums was field screened using Chlor-D-Tect test kits. The field-screening kits are colorimetric tests that detect the presence of chlorinated compounds in

excess of 1,000 ppm. If the test kits indicated chlorinated compounds below 1,000 ppm, then the drum was considered to have “passed” the field-screening test. Three of the drums failed the field-screening tests, and required fixed laboratory analysis. Field-screening procedures are detailed in Section 5.4.1. Waste results are discussed in the following section.

6.9.2 Liquid Drum Waste Results

Three of the 24 field-screened drums indicated chlorinated compounds in excess of 1,000 ppm. One primary and one duplicate composite sample were collected from these three drums, and analyzed by TestAmerica. Sample results for both samples indicated lead concentrations at 200 mg/kg. The three drums were classified as hazardous waste, based on the presence of chlorinated paraffins determined by field screening and the lead results (Table 3 in Appendix I).

A primary and duplicate sample was collected from drums that field screening indicated the contents to be ethylene glycol. The samples were analyzed for TCLP benzene, TCLP metals and ethylene glycol. TCLP results were nondetect or were well below waste disposal criteria for metals. The results indicated the drums contained nearly 100% ethylene glycol anti-freeze (Table 4 Appendix I).

6.9.3 Kitty Litter with Oil and Oil Sludge

In addition to liquid wastes, oil sludge and kitty litter contaminated with oil were managed at the HWAP. Bristol collected three primary samples and one duplicate sample from a combination of two oil sludge drums and 17 drums of kitty litter contaminated with oil.

Analytical results from the kitty litter drums indicated PCB concentrations above 2 mg/kg (Table 5 Appendix I). The PCB concentrations did not meet federal regulations for hazardous waste, but did dictate the final disposal facility for these drums.

Results from the oil sludge analytical samples indicated concentrations below hazardous waste regulatory limits.

6.9.4 Stained Soils

Seven primary samples and one duplicate sample were collected from the bulk soil containers. Results indicate concentrations below hazardous waste regulatory limits (Table 6 in Appendix I).

6.9.5 Treated Wastewater

Treated wastewater from the impoundment area located in the HWAP was sampled prior to two discharge events. Constituent concentrations were all below cleanup criteria (Tables 7 and 8 in Appendix I).

6.9.6 Drill Cuttings

Three primary samples and one duplicate sample were collected from eleven drums containing drill cuttings associated with the installation of soil borings at the MOC. The soil borings were installed for the ISCO treatment study, but the cuttings were transferred to the HWAP and managed by Bristol for waste disposal purposes. Results indicate concentrations below hazardous waste regulatory limits (Table 9 Appendix I).

6.9.7 Ash Results

Bristol's subcontractor utilized a Smart Ash Cyclonic Barrel Burner[®] to manage camp trash during the 2009 field season. Ash created from the burning process was sampled for waste disposal purposes. One sample was collected and analyzed for Toxicity Characteristic Leaching Procedure Metals by EPA Method 6010B. Results shown in Table 10 in Appendix I indicate concentrations below hazardous waste regulatory limits.

7.0 REFERENCES

- Bristol Environmental & Engineering Services Corporation. 2009 (July). In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap Sampling and Analysis Plan. Prepared for U.S. Army Corps of Engineers (USACE), Northeast Cape, St. Lawrence Island, Alaska.
- Montgomery Watson. 1999 (August). Final Phase II Remedial Investigation, Northeast Cape, St. Lawrence Island, Alaska, Volume I: Report Body.
- Montgomery Watson. 1996 (December 6). Draft Phase II Remedial Investigation/Feasibility Study, Northeast Cape, Alaska.
- Montgomery Watson Harza Americas, Inc., 2003 (May). Technical Memorandum – Background Determination for Risk Assessment, Derivation of Ambient Concentrations for Abiotic Media Associated with the Northeast Cape, St. Lawrence Island, Alaska. Final.
- Shannon & Wilson, Inc. 2005 (June). *Phase IV Remedial Investigation, Northeast Cape, St. Lawrence Island, Alaska. Final.*
- R&M Consultants, Inc. 2007 (November). Geophysical Survey, Northeast Cape, FUDS#F10AK096905. Prepared for the USACE.
- USACE, 2002 (March). Engineering Evaluation and Cost Analysis, Environmental Assessment and Finding of No Significant Impact, White Alice Site Removal Action, Northeast Cape, St. Lawrence Island, Alaska.

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FIGURES



Source: USGS National Atlas Sheet Number 42-43

FIGURE 1
 NORTHEAST CAPE, ST. LAWRENCE ISLAND, ALASKA
 IN-SITU CHEMICAL OXIDATION AND INTRUSIVE
 DRUM REMOVAL/LANDFILL CAP
VICINITY MAP

Bristol
 ENVIRONMENTAL REMEDIATION
 SERVICES, LLC
 Phone (907) 563-0013 Fax (907) 563-6713
 CONTRACT NO: W911KB-09-C-0013

DATUM:	NA	DATE	12/09/09
PROJECTION:	NA	DWN.	MTG
PROJECT NO.	49028	SCALE	SHOWN
		APPRVD.	MW

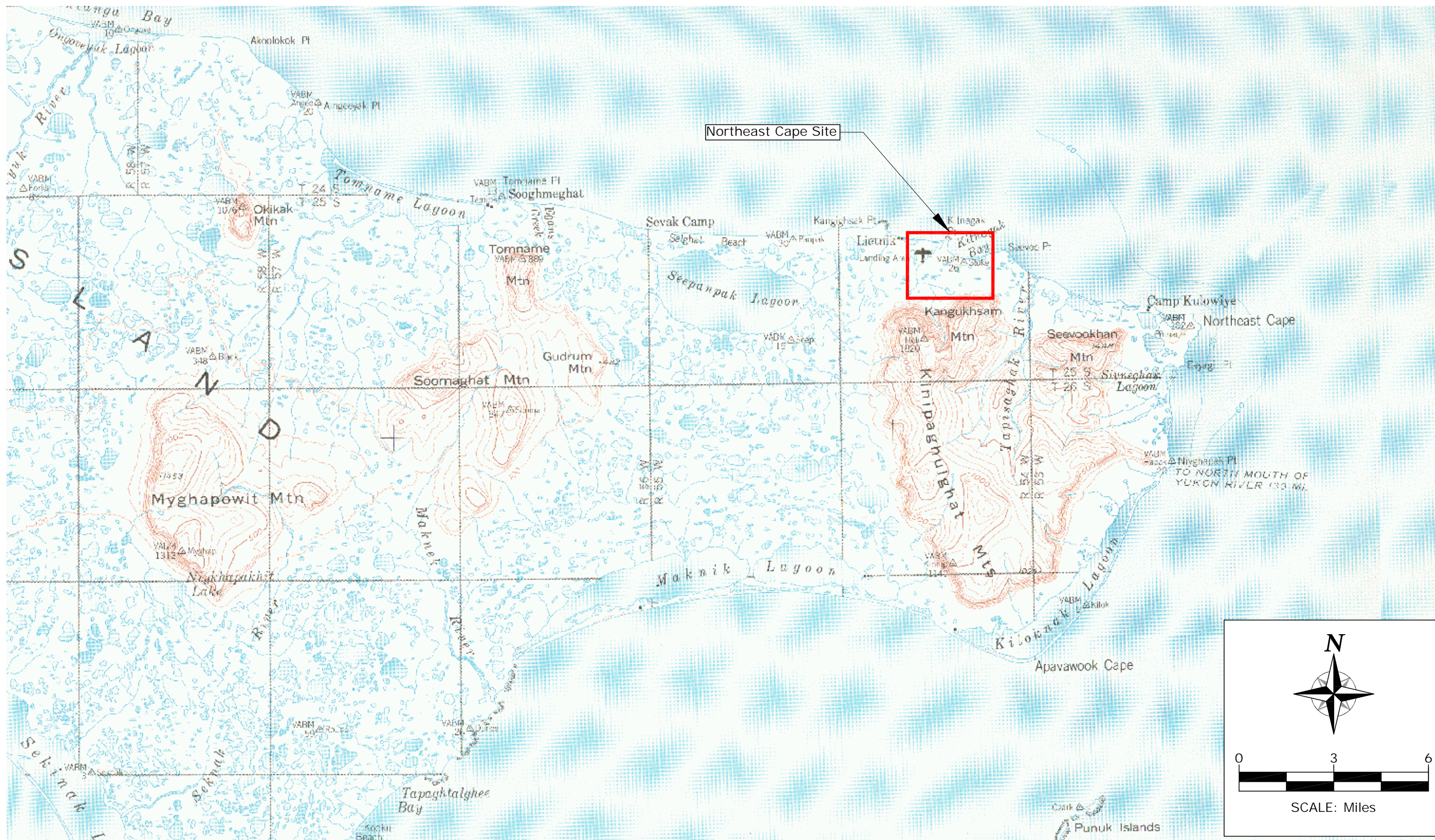

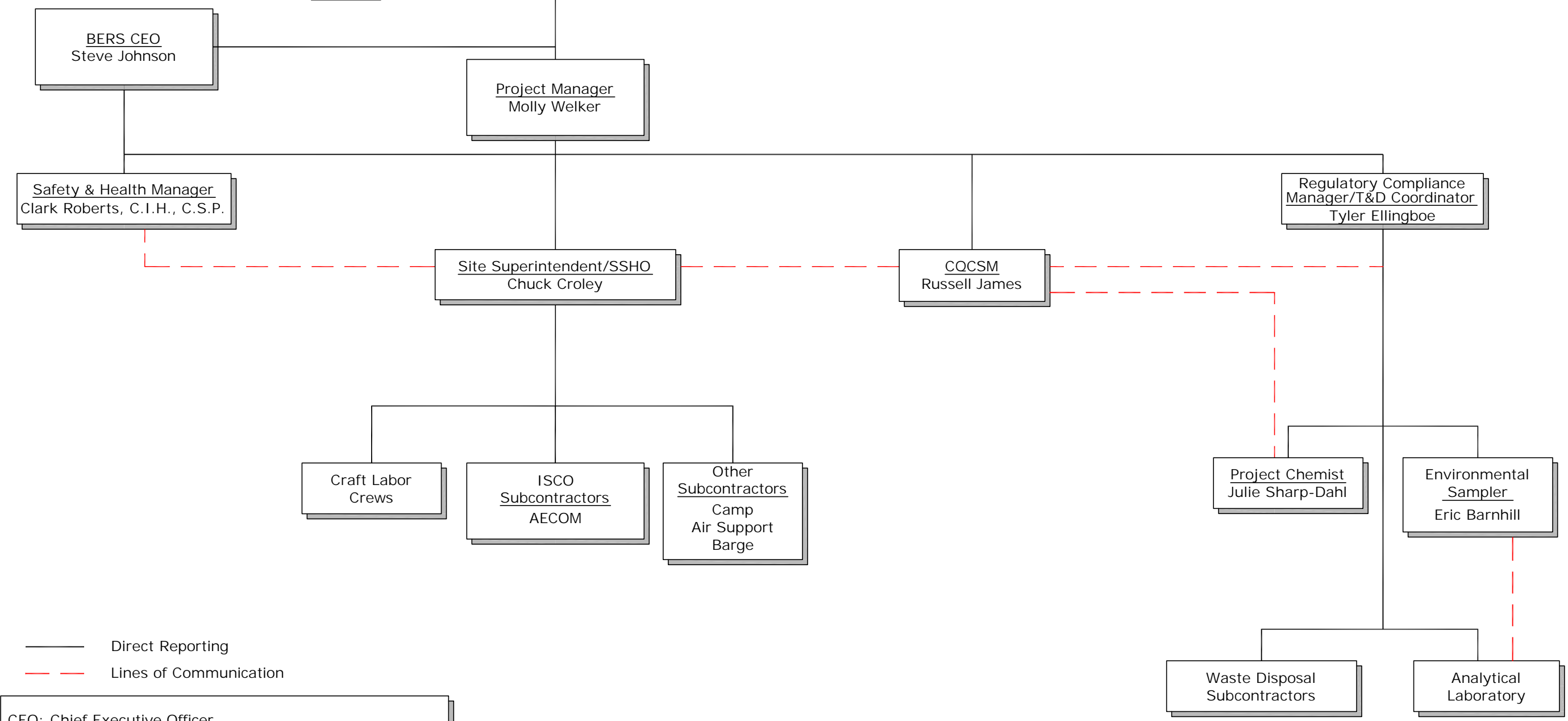


FIGURE 2
NORTHEAST CAPE, ST. LAWRENCE ISLAND, ALASKA
IN-SITU CHEMICAL OXIDATION AND INTRUSIVE
DRUM REMOVAL/LANDFILL CAP
LOCATION MAP

 Bristol ENVIRONMENTAL REMEDIATION SERVICES, LLC Phone (907) 563-0013 Fax (907) 563-6713 CONTRACT NO.: W911KB-09-C-0013	DATUM: NA	DATE 12/09/09
	PROJECTION: NA	DWN. MTG
	PROJECT NO. 49028	SCALE SHOWN
		APPRVD. MW

Drawing: O:\JOBS\49028 NECAPE LANDFILL\ACAD-ENV\FIGURES-FINAL\DEC09\DWG\49028-FIG2_DECO9.DWG - Layout: 49028-FIG2_OCT09
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U. S. Army Corps of Engineers,
Alaska District



— Direct Reporting
- - - Lines of Communication

CEO: Chief Executive Officer
CQCSM: Contractor Quality Control System Manager
ISCO: In-situ Chemical Oxidation
SSHO: Site Safety & Health Officer
T&D: Transportation & Disposal

FIGURE 3
NORTHEAST CAPE, ST. LAWRENCE ISLAND, ALASKA
IN-SITU CHEMICAL OXIDATION AND INTRUSIVE
DRUM REMOVAL/LANDFILL CAP
CONTRACTOR QUALITY CONTROL ORGANIZATION

Bristol
ENVIRONMENTAL REMEDIATION
SERVICES, LLC
Phone (907) 563-0013 Fax (907) 563-6713
CONTRACT NO: W911KB-09-C-0013

DATUM:	NA	DATE	12/09/09
PROJECTION:	NA	DWN.	MTG
PROJECT NO.	49028	SCALE	SHOWN
		APPRVD.	MW

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User: MGARCIA Dec 11, 2009 - 2:09pm Xrefs: - Images:

NOTE
1. DRAWING ADAPTED FROM MONTGOMERY WATSON FILE TITLED
NECAPE.DWG, DATE 05 JUNE 2001. BASED ON RESURVEY PERFORMED
BY ECO-LAND, LLC JULY 2009

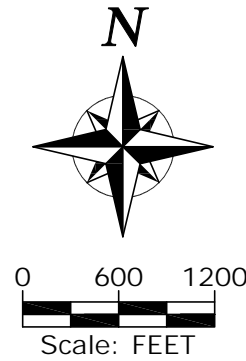
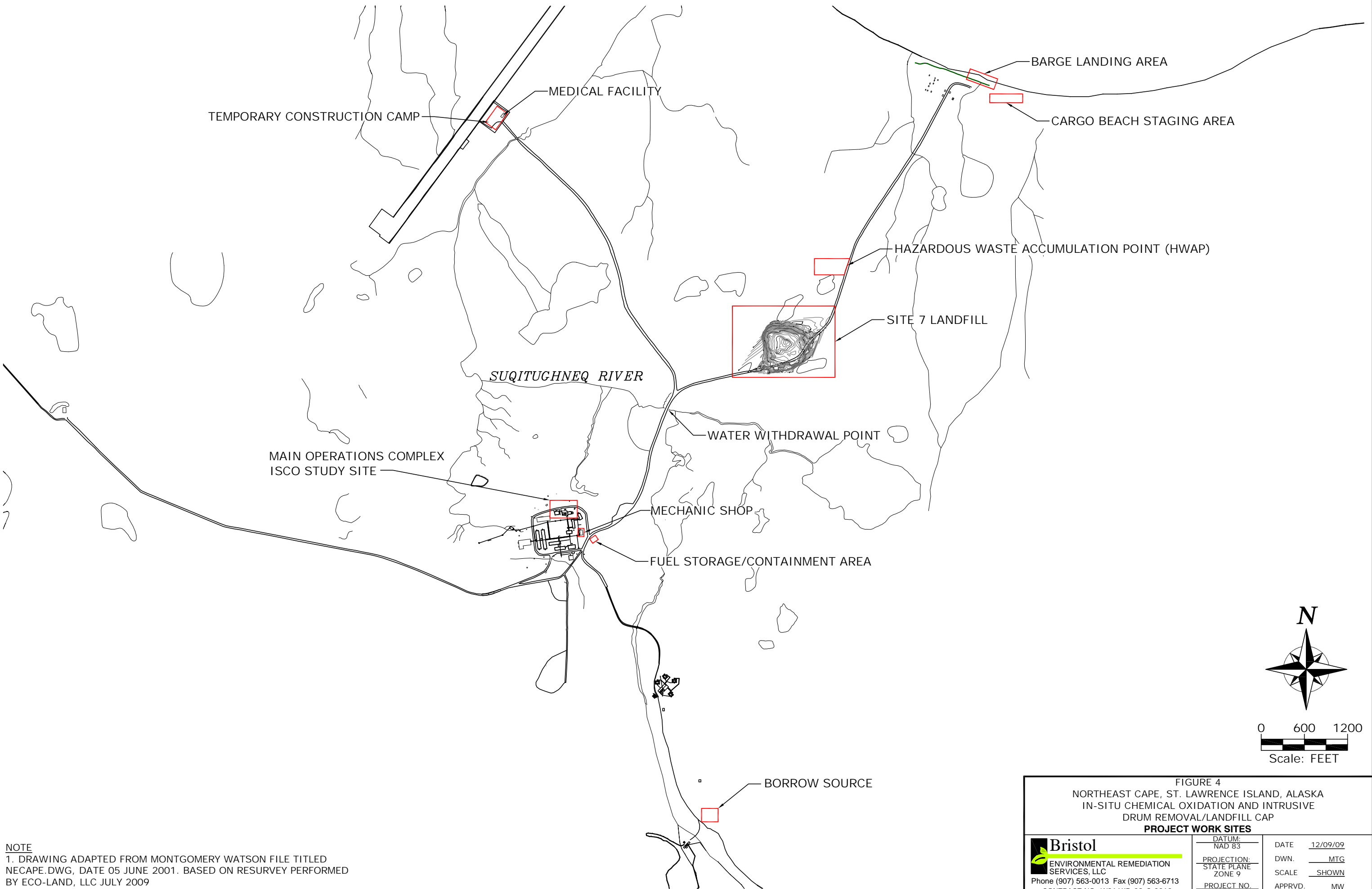
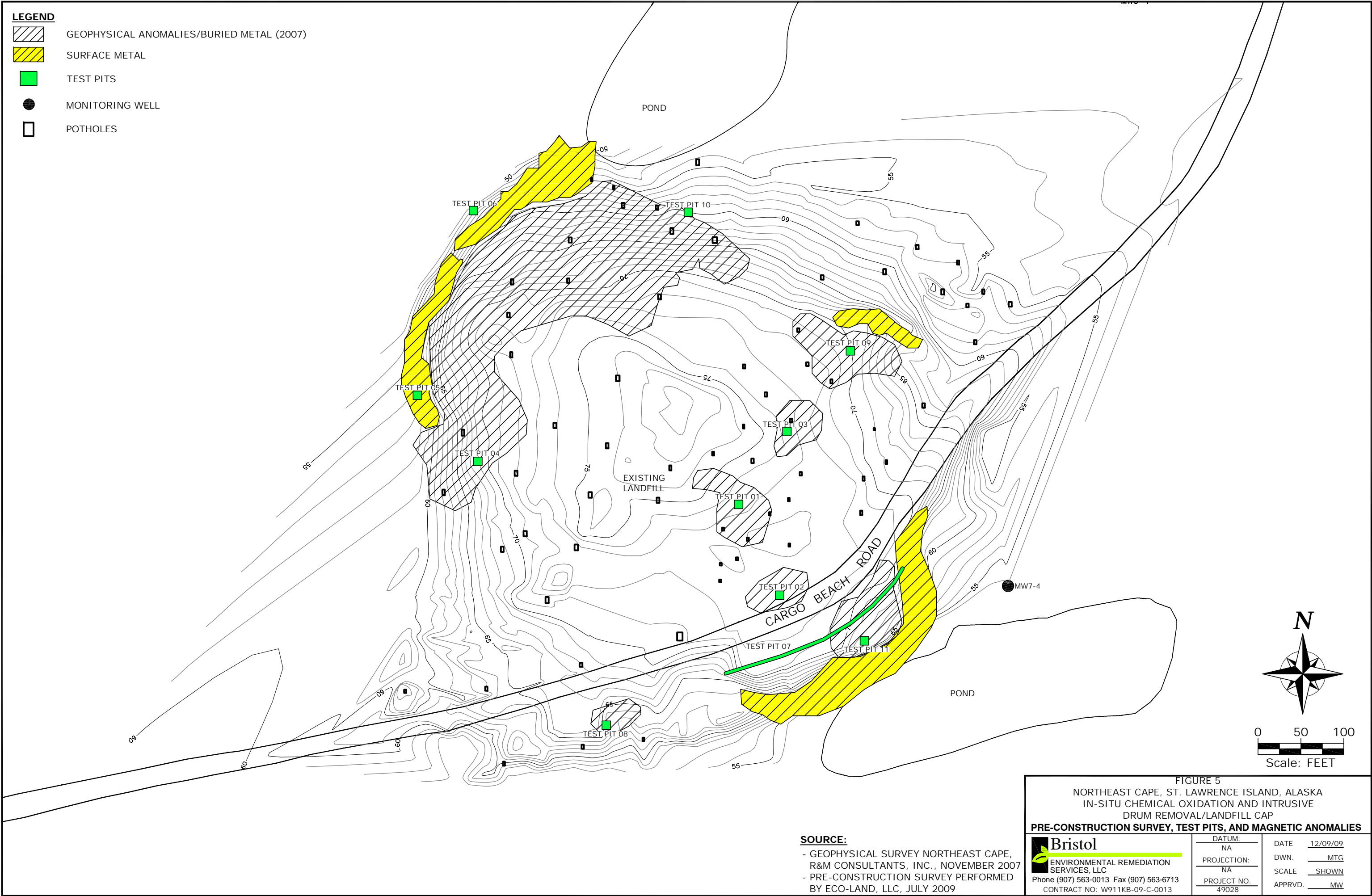


FIGURE 4
NORTHEAST CAPE, ST. LAWRENCE ISLAND, ALASKA
IN-SITU CHEMICAL OXIDATION AND INTRUSIVE
DRUM REMOVAL/LANDFILL CAP
PROJECT WORK SITES

Bristol
ENVIRONMENTAL REMEDIATION
SERVICES, LLC
Phone (907) 563-0013 Fax (907) 563-6713
CONTRACT NO: W911KB-09-C-0013

DATUM: NAD 83	DATE 12/09/09
PROJECTION: STATE PLANE ZONE 9	DWN. MTG
PROJECT NO. 49028	SCALE SHOWN
	APPRVD. MW

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SOURCE:

- GEOPHYSICAL SURVEY NORTHEAST CAPE, R&M CONSULTANTS, INC., NOVEMBER 2007
- PRE-CONSTRUCTION SURVEY PERFORMED BY ECO-LAND, LLC, JULY 2009

FIGURE 5
NORTHEAST CAPE, ST. LAWRENCE ISLAND, ALASKA
IN-SITU CHEMICAL OXIDATION AND INTRUSIVE
DRUM REMOVAL/LANDFILL CAP
PRE-CONSTRUCTION SURVEY, TEST PITS, AND MAGNETIC ANOMALIES

Bristol ENVIRONMENTAL REMEDIATION SERVICES, LLC Phone (907) 563-0013 Fax (907) 563-6713 CONTRACT NO: W911KB-09-C-0013	DATUM: NA	DATE 12/09/09
	PROJECTION: NA	DWN. MTG
	PROJECT NO. 49028	SCALE SHOWN
		APPRVD. MW

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User: MGARCIA Dec 11, 2009 - 2:17pm Xrefs: - Images:

LEGEND

- MONITORING WELL
- SAMPLE LOCATION

MW6-2

MW6-1

09NC007SB02
09NC007SB03
09NC007SB05
09NC007SB06

CONEX™ STORAGE AREA

HAZARDOUS WASTE ACCUMULATION POINT

09NC007SB04
09NC007SB07

FINAL WATER
IMPOUNDMENT
09NC007SB01
09NC007SB08

STAGED WATER TREATMENT SYSTEM

INITIAL CONTAINMENT,
DRUM WASH AND
DRUM STAGING AREA

CONEX™

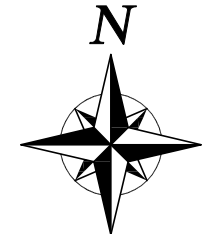
CONEX™

CONEX™

WATER SCRUBBERS

CARGO BEACH ROAD

SITE 7 LANDFILL



0 15 30

Scale: FEET

FIGURE 6

NORTHEAST CAPE, ST. LAWRENCE ISLAND, ALASKA

IN-SITU CHEMICAL OXIDATION AND INTRUSIVE

DRUM REMOVAL/LANDFILL CAP

HAZARDOUS WASTE ACCUMULATION POINT

Bristol

ENVIRONMENTAL REMEDIATION SERVICES, LLC

Phone (907) 563-0013 Fax (907) 563-6713

CONTRACT NO: W911KB-09-C-0013

DATUM:	NA	DATE	12/09/09
PROJECTION:	NA	DWN.	MTG
PROJECT NO.	49028	SCALE	SHOWN
		APPRVD.	MW

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APPENDIX A

Photograph Log



Mobilizing equipment from barge landing craft.



Staging mobilized equipment on Cargo Beach.



Road repairs shortly after arriving.



ATCO trailer being moved into place.



Grading camp area pad adjacent to runway.



Weather port wood platform with support structure.



Camp construction.



One of three sites sampled prior to
Hazardous Waste Accumulation Point (HWAP) construction.



One of three sites sampled prior to HWAP construction.



HWAP prior to water treatment area construction.



Water treatment area construction at HWAP.



Water treatment area construction at HWAP.



Swale on south side of landfill prior to culvert placement and road construction.



South side of landfill after road around landfill was constructed and culvert placement.



Surface area scratching in metal anomaly area, prior to drum excavation at landfill.



Ten-foot by ten-foot by four-foot deep investigation test pit.



Surface metal and debris on southeast slope of landfill.



Placing silt fence at toe of slope on southeast slope of landfill.



Finished silt fence on southeast slope of landfill, prior to excavation.



Beginning of excavation of drums.



Searching for drums in landfill.



Drum found with oil. In-situ pumping process at landfill.



Removing pumped drum with drum lifter and excavator.



Excavated drum in tote at HWAP.



HWAP - Drum washing area with, from left to right: washing area, oil-water separating device, initial water scrubber, initial water containment, secondary scrubber, and secondary water holding area (tertiary scrubber and final holding area not shown).



Thick, oil and sludge in tote.



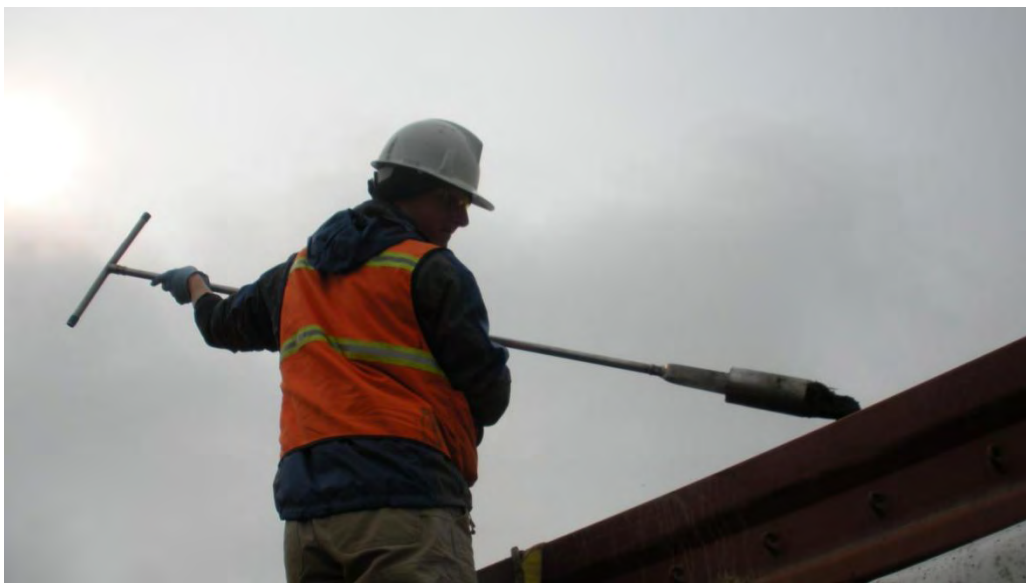
Cleaned drums placed back in landfill excavation for reburial.



Crushed drum with sticky sludge/oil, cleaned of gross outer and reachable inner sludge, and lined inside and out with kitty litter.



Bulk soils from landfill, accumulated in shipping containers.



Sampling grossly stained bulk soils.



Accumulated oil and other wastes at the HWAP.



Running Chlor-D-Tect 1000 chlorine halogen test kits on reclaimed oil.



Packaged and secured waste streams, ready for shipment.



Waste container placarding.



HWAP - One of the primary water containment areas with oily sheen, prior to multiple scrubbing.



HWAP – Final containment area, post scrubbing, no visible sheen or signs of petroleum contamination.



Water from final containment area shown in Imhoff cone,
no settleable solids were observed.



Active borrow area.



Stockpile of fill for landfill cap at landfill.



Laying down lifts for landfill cap.



Track walking landfill cap to achieve desired compaction.



Confirming thickness of landfill cap was at desired thickness of two feet.



Spreading fertilizer to prepare for seed grass seed spreading (August 13, 2009).



Fertilizer and grass seed on landfill cap (August 13, 2009).



Capped landfill (August 18, 2009).



Germinated grass seed on landfill (September 11, 2009).

APPENDIX B

Daily Quality Control Reports (Provided on CD)

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 001

Date or Time Period
Thursday June 25th, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

No formal weather taken today.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐

No ☒

N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐

No ☐

N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐

No ☒

N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐

No ☐

N/A ☒

Have samples been properly labeled and packaged?

Yes ☐

No ☐

N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐

No ☐

N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐

No ☐

N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

No formal Health & Safety meeting held today.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">Two persons check in for flight to Nome at 0430 hrs. In Nome at 0930 hrs.Four additional personnel Maze, George, and Johnny arrived in Nome at 1330 hrs. They had mobbed some of the food prior to leaving Anchorage.Left Nome on charter aircraft for NE Cape at 1515 hrs. Arrived at the cape at 1545 hrs.Walked to the beach to get transportation. The first Landing craft had landed the previous evening. They had a lot of trouble unloading the equipment. They got stuck in soft sand and had to pull all of the loads ashore with a small dozer. Northland left equipment strung all over the beach, so the effort for the rest of the day was to get the beach organized and cleared to the point that we could get the two Modular units to the pad along side of the airstrip. To get these units to the pad we had to conduct a couple of road repair patches with the D-6 dozer and the 120 Excavator. (See the Remarks section).Daily shift ended at 2330 hrs.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	19.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	14.5	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	14.5	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer			Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black			Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	19.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiuk			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan			Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis			Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	14.5	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Mark Berean			Arctic Cat Side by Side	50-924	1 Day
			Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
				Environ #1	1 Day

			DeWalt Generator		
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	5	81.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo			75 KW Generator		
Baker-					
Bull Cook					
Installer-Steve Byers					
Installer-George A. Rowe					
Installer-Robert Nelson					
Installer-Don 'Skeeter' Cross					
Installer-Doug Byers					
Installer-Sedan McBride					

Denali Drilling			Equipment		
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Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks			
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

When walking the road to the beach, upon landing at the Cape, it was obvious that we need to do a fair amount of work on the roadway to make it safe and passable. This work will involve using an excavator to rake up material that has sloughed or settled from the edges of the roadway. In some areas, mostly between the airstrip and the intersection of them roads, the roadway had suffered quite a bit of settlement. This settlement was seen as cracks in

6/25/09

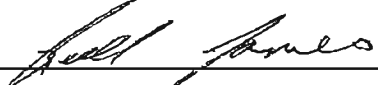
DQCR 001

the roadway (Photos were taken). For this section of the road the fix appears to be to rake up materials that had sloughed from the berms and then re-grade the roadway. We hope to keep grading to a minimum as the roadway is mainly constructed with large rock, and this rock is difficult to maintain smooth surfaces with. On the section of road from the intersection to Cargo Beach there a few areas that we are going to have to add some fill material.

In checking out the possible borrow areas, it is obvious that there is a lot of borrow available, but the most borrow and the easiest to mine is at another site than the one with the old grizzly. The haul is longer and more difficult, but it will be faster and easier to mine. This other area has been mined in the past.

Comments:

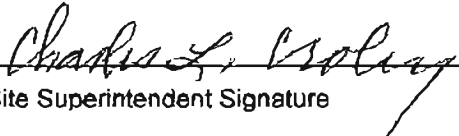
Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



CQCSM Signature

7/10/2009

Date



Site Superintendent Signature

7-10-09

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 002

Date or Time Period
Friday June 26th, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

No formal weather taken today.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged?

Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

What did we learn from yesterday? Uneven terrain is difficult to maneuver either walking or moving equipment, road conditions do not warrant fast travel and that we are going to have to rebuild some sections of road, we have located where the best material is located, we are low on fuel in a lot of our equipment so we will have to conserve or will be walking, and we need to begin wearing our PPE, especially our high visibility vests.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. When we got up in the AM we thought that we would have another Landing craft in the evening, but upon contact with the PM we found that we would not have another boat until tomorrow approx. 0600 hrs.2. Spent the day patching roads to be able to move freight off of the beach and to the different locations we need the containers to be.3. For materials, we are presently using the most common site and not the site we intend to use for the majority of the landfill cover.4. Hauled two loads of rock to the road and two loads of rock to the beach.5. I ended the shift at 1700 hrs today for two reasons, the first was that we worked long yesterday and the second is that we anticipate starting early tomorrow.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	11.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	10.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	10.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer			Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black			Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	10.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiyyuk			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan			Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis			Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	10.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Mark Berean			Arctic Cat Side by Side	50-924	1 Day
			Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day

			DeWalt electric compressor		1 Day
					1 Day
			DeWalt Generator	Environ #1	
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	5	51.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo			75 KW Generator		
Baker-					
Bull Cook					
Installer-Steve Byers					
Installer-George A. Rowe					
Installer-Robert Nelson					
Installer-Don 'Skeeter' Cross					
Installer-Doug Byers					
Installer-Sedan McBride					

Denali Drilling			Equipment		
Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒


Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks	4	0	4
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			


Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/10/2009
Date


Site Superintendent Signature

7-10-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date

6-26-09

Daily Tailgate H&S Meeting

1. What did we learn from yesterday
A. Uneven Terrain B. Road conditions;
Rebuilding sections & where material
is located C. Fuel for Rigs D. PPE

<u>Name</u>	<u>Signature</u>	<u>Company</u>
Chuck Croley	Charles A. Croley	BCS
George Mauc	george mauc	DDDS 8:30 am
Allen Dennis	Allen Dennis	BERS
Johnny Willis	Johnny Willis	BERS 8:30 am
Maze Thompson	Maze Thompson	BERS 8:30 am





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 003

Date or Time Period
Saturday June 27th, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

No formal weather taken today.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged?

Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

We will be working with others on the beach. Communication is necessary for safety.

People on the ground need to make sure that the operators can see you.

If there is any question as to what the proper direction is, shut down and ask.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. The Northland Barge was in the Bay at approx. 3 am.2. Crew started to the beach at 5 am. The landing craft crew was starting to unload when we got there. Had them stop while we spread some rock that we had carried to the site to make the unloading go faster. We were unloaded by 0730. They anticipated being back at the beach at 1800 hrs.3. Spent the rest of the morning clearing the beach so that we could unload in a more logical fashion this pm.4. Took a walk around the landfill. There is two real steep sections two fill at. There is still a lot of snow on the NE tow of the landfill. Lots of exposed drums around the perimeter of the whole landfill. Observed only a small quantity of oil stained soil on the SE tow of the slope.5. The Landing craft were back to the beach earlier than they had told us they were coming. They had started to unload before we got there. I had them stop as they were making a mess of the beach. They were getting stuck and having to pull loads from the landing craft. We arranged some of the rock we had on site and they started unloading in a proper fashion and we were able to keep from clogging up the beach. The Nunaniq had mostly rolling stock, so it got off of the beach quickly and went back to the barge for the last of the equipment.6. Ended up with three landing craft in the PM and this finished the barging for this portion of the mobilization.7. Ended the shift at 2130 hrs.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	16.5	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	15.5	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	15.5	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer			Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black			Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	15.5	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiyyuk			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan			Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis			Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	15.5	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Mark Berean			Arctic Cat Side by Side	50-924	1 Day
			Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day

			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	5	78.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo			75 KW Generator		
Baker-					
Bull Cook					
Installer-Steve Byers					
Installer-George A. Rowe					

Installer-Robert Nelson					
Installer-Don 'Skeeter' Cross					
Installer-Doug Byers					
Installer-Sedan McBride					

Denali Drilling			Equipment		
Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒


Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks	4	4	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

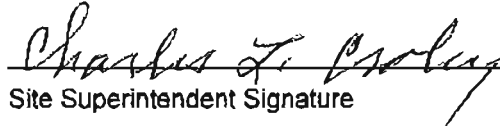
Remarks (Include any visitors to project and miscellaneous remarks pertinent to work.)

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/10/2009
Date


Site Superintendent Signature

7-10-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 004

Date or Time Period
Sunday June 28th, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

No formal weather taken today.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐

No ☒

N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐

No ☐

N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐

No ☒

N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐

No ☐

N/A ☒

Have samples been properly labeled and packaged?

Yes ☐

No ☐

N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐

No ☐

N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐

No ☐

N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Weather has changed. Light rain and a heavy mist is falling. Stay dry as it is easy to get chilled when wet.

Priorities of work are to get the forks installed on the Volvo 330L loader and to get the grader tire, that Northland had knocked off of the bead by running into it with one of their loaders.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. Started the shift at 0700 hrs today. Work centered on getting the equipment set up and repairing some of Northlands handywork.2. Moved containers off of the beach for most of the day. Tried to get some of Global's containers to the camp site so that they could start work when they arrived.3. We moved some sand to the area that is going to be our fuel containment cell.4. At 1800 hrs we got Bering Air's Beech 1900 in with over 4000 lbs of Global Service's groceries and freight.5. After we got the grader running Maze tried to work over some of the road from the camp pad to the intersection. This is very rough, but it is wider and more safe.6. We ran the grader over the area that we are going to build the camp. The camp is going to be built on a slope. There is not much of a way to block up the floors for the tents without getting into a building project that we aren't set up for. It just is what it is.7. End the shift at 1930 hrs.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer			Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black			Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiuk			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan			Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis			Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Mark Berean			Arctic Cat Side by Side	50-924	1 Day
			Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	5	61.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo	1	1 Day	75 KW Generator	1 Day	
Baker-			Camp Facility	1 Day	
Bull Cook					
Installer-Steve Byers	1	1 Day			
Installer-George A. Rowe	1	1 Day			
Installer-Robert Nelson	1	1 Day			
Installer-Don 'Skeeter' Cross	1	1 Day			
Installer-Doug Byers	1	1 Day			
Installer-Sedan McBride	1	1 Day			

Denali Drilling			Equipment		
Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks	4	4	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			


Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


 JJCSCM Signature

7/10/2009
 Date


 Site Superintendent Signature

7-10-09
 Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date

10-28-09

Daily Tailgate H&S Meeting

Tapes:

1. Weather: moisture - mists and stay protected.

APPENDIX D

Proposed Landfill Cap Design

2. Priorities of work & work efforts in the AM. 330 Forks, Grader & tire Haul Sand to spots to be designated

<u>Name</u>	<u>Signature</u>	<u>Company</u>
Chuck Criley	Charles L. Criley	BCS
Maize Thompson	Maize Thompson	BERS
Allen Dennis	Allen L. Dennis	BEAS
Johnny Willis	Johnny Willis	Bers
George Macie	Cecil W. L.	BERS

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911-KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 005

Date or Time Period
Monday June 29th, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

No formal weather taken today.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged?

Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

New camp set up. Watch while moving equipment in a congested area.

New personnel on site today. Take it easy until we know how they react around our operation and which of them is or can be operators.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. The shift started off for Bristol personnel moving the generator and the two modular units into the final camp position. After that, we continued to try to clear the beach and move Global containers to the camp pad.2. Five Global personnel arrived on site at 1030 hrs. They brought the cook with them. They came on a small Beech with some additional Bristol freight and lots of bags.3. 1410 hrs the last two Global personnel were on the ground at the Cape.4. All of the Global personnel concentrated on building the Rec tent. By the end of the shift they had the tent up with the furnace going and seven beds inside.5. The last thing that the Bristol crew did was fill a cube full of water.6. Shift ended for the Bristol crew at 2000 hrs.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	14.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	13.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	13.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer			Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black			Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	13.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiyyuk			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan			Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis			Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	13.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Mark Berean			Arctic Cat Side by Side	50-924	1 Day
			Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day

			DeWalt electric compressor		1 Day
					1 Day
			DeWalt Generator	Environ #1	
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	5	66.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo	1	1 Day	75 KW Generator	1 Day	
Baker-			Camp Facility	1 Day	
Bull Cook					
Installer-Steve Byers	1	1 Day			
Installer-George A. Rowe	1	1 Day			
Installer-Robert Nelson	1	1 Day			
Installer-Don 'Skeeter' Cross	1	1 Day			
Installer-Doug Byers	1	1 Day			
Installer-Sedan McBride	1	1 Day			

Denali Drilling			Equipment		
Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

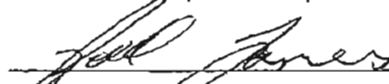
PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks	4	4	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)


Global personnel, Steve Byers, George Rowe, Doug Byers, Sean McBride, Don Cross, Robert Nelson and cook Armondo Correa were on site today.

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


QCSCM Signature

7/10/2009
Date


Site Superintendent Signature

7-10-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date

²⁹
6-30-09

Health & Safety Tailgate Meeting.

1. New Camp setup: Watch Moving
in congested area.

2. New personnel from Global on site.

<u>Name</u>	<u>Signature</u>	<u>Company</u>
Chuck Croley	Charles L. Croley	BCS
Allen Dennis	Allen L. Dennis	BERS
Johnny Willis	John Willis	BERS
GEORGE MACIE	George Macie	BERS
Maze Thompson	Maze Thompson	BERS

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911kb-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 006

Date or Time Period
Tuesday June 30th, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

No formal weather taken today.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged?

Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Safety of tools-garden rakes left lying on the ground with tines sticking up, power cords lying all over, etc.

Site cleanup: It is imperative that we keep picked up and trash burned to keep trash from blowing all over the tundra. If we are burning, we have to keep fuel cans on a liner.

Electrical cord safety. Don't walk on cords. With the rain and mist falling do not let power cords lay in puddles if they form.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. The shift started off for Bristol personnel at 0630 hrs.2. Moved two ISO tanks, one gasoline and one diesel from the beach to the area of the new fuel containment. Filled the fuel truck with diesel and a service tank with some gasoline. Ended up with some water in the service tank, which ended up in the Blazer. The mechanic worked for about three hours getting the water out of the Blazer and it running again.3. Bristol got the antenna dishes for the Internet and the TV up.4. By the end of the shift, Global had the mess hall floors and skin up, the floors and part of the skin of the office tent, and a start to the floors of the wash house.5. Shift ended for the Bristol crew at 1900 hrs.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete
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Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer			Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black			Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiyyuk			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan			Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis			Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Mark Berean			Arctic Cat Side by Side	50-924	1 Day
			Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	5	61.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo	1	1 Day	75 KW Generator	1 Day	
Baker-			Camp Facility	1 Day	
Bull Cook					
Installer-Steve Byers	1	1 Day			
Installer-George A. Rowe	1	1 Day			
Installer-Robert Nelson	1	1 Day			
Installer-Don 'Skeeter' Cross	1	1 Day			
Installer-Doug Byers	1	1 Day			

Installer-Sedan McBride	1	1 Day			

Denali Drilling			Equipment		
Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks	4	4	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

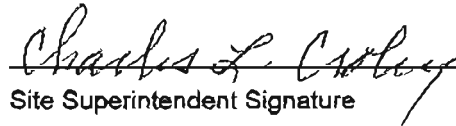
Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


 QCSCM Signature

7/10/2009
 Date


 Site Superintendent Signature

7-10-09
 Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date

6-30-09

Daily Health & Safety Tailgate Meeting

Subjects: ① Safety of Tools - garden rakes, power cords ② Site Cleanup - Priority on Smart Ash & Fuel - fuel cans on lines. ③ Electrical Cord Safety

<u>Name - Print</u>	<u>Signature</u>	<u>Company</u>
Chuck Croley	Charles C. Croley	BCS
Johnny Willis	Johnny Willis	BERS
George Mack	Geo. M. L.	BERS
Maze Thompson	Maze Thompson	BERS
Allen Dennis	Allen Dennis	BERS
Douglas Byers	D. Byers	Global
Robert Nelson	Rob Nelson	Global
George A. Rowe	George Rowe	Global
STEVE BYERS	Steve Byers	Global
Dan SKEETER Cress	Dan Cress	Global
CHRIS McDrisc	Chris McDrisc	GLOBAL

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number W911KB-09-C-0013	UPC/Project Title and Location of Work Chem. Ox & Intrusive Drum Removal/Landfill Cap Northeast Cape, St. Lawrence Island, AK.
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CQC Report Number N. E. Cape 007	Date or Time Period Wednesday July 1st, 2009	Client USACE, Alaska District
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Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

No formal weather taken today.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged?

Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Wildlife: Foxes are getting braver. Keep trash picked up.

Smart Ash: We will put on a liner and cover the liner with some sand so that the liner does not get burned.

Watch loader and forklift safety: Walk around equipment before backing up equipment, Ground personnel watch for approaching equipment, and with camp building going on we have a lot of clutter. It is hard to see potential hazards. Everyone is doing a fine job so far. Keep it up.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. The start of the shift for Bristol was 0630 hrs.2. Priority of work was to get water to the site. We ran into some shakedown problems with the main water tank that we needed to clean. It seemed as it had some things growing in it. We used this as an excuse to get the new Hotsy pressure washer up and running, then steam cleaned the water storage tank. We had to order some more water line as Site Supt. did not do a good job of scaling distances off of an old 1982 air photo.3. Bristol crew started on the fuel containment cell. Got the base leveled and a sand course laid down.4. Global crew concentrated on the shower house. It is the goal for personnel to shower tonight. Global got the cooks quarters up.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete
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Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.5	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer			Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black			Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiyyuk			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan			Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis			Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Mark Berean			Arctic Cat Side by Side	50-924	1 Day
			Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	5	60.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-			Camp Facility		1 Day
Bull Cook					
Installer-Steve Byers	1	1 Day			
Installer-George A. Rowe	1	1 Day			
Installer-Robert Nelson	1	1 Day			
Installer-Don 'Skeeter' Cross	1	1 Day			
Installer-Doug Byers	1	1 Day			

Installer-Sedan McBride	1	1 Day			
	1	1 Day			

Denali Drilling			Equipment		
Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒


Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks	4	4	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

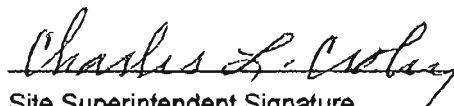
Remarks (Include any visitors to project and miscellaneous remarks pertinent to work.)

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


 CQCSM Signature

7/10/2009
 Date


 Site Superintendent Signature

7-10-09
 Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date

6-7-09

Daily Health & Safety Tailgate Meeting

- Subjects: Wildlife: ^① Foxes getting braver
- ② Smart Ash: We will put on a sand covered liner, watch fuel splash
- ③ Watch loader safety on the camp pad: ^① Walk around before backing
- ② Ground personnel watch for life
- ④ With camp building going on we have a lot of clutter, hard to see. Every one doing a good job so far.

<u>Name - Printed</u>	<u>Signature</u>	<u>Company</u>
Chuck Croley	Charles L. Croley	BRS-
Johnny Willis	John Willis	Bers
George Macle	George Macle	BERS
Allen Dennis	Allen Dennis	BRS
Maze Thompson	Maze Thompson	Bers
Scott MP McBride	Scott MP McBride	Global
Douglas Byers	Douglas Byers	Global
Robert Nelson	Robert Nelson	Global
Armando Correa	A. Correa	Global
STEVE BYERS	Steve Byers	Global
George A Rowl	George A Rowl	Global
DON SKETTER CROSS	Don Sketter	Global

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 008

Date or Time Period
Thursday July 2nd, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

No formal weather taken today.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged?

Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Foxes: The foxes are getting closer to our work pads all of the time. Watch out. All foxes on the Island are Rabies carriers.

Continue good lifting practices: Have to watch yourselves while working with liners because of the odd positions a person gets in on pulling, rolling, etc.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. The start of the shift for Bristol was 0630 hrs.2. Bristol continued with the ISO (fuel) containment. Got all of the fuel tanks placed and the flat (for the truck fueling) placed. The berms are not completed yet.3. The Satellite Tech was on site approx. 1330 hrs. Bering Air brought him in on a small Beech as we had quite a bit of freight. AECOM sent a bunch of equipment. Bristol had two small packages.4. The communications Tech got the satellite dishes dialed in quickly, but the Denver, CO. satellite people could not do a "Push/Pull test, which they require, supposedly, because of a storm around Colorado. I think that it had more to do with time zones and the fact that they didn't have the available to accomplish the work. We should be able to complete the tests tomorrow morning. Ethan Dietz from Satellite AK on site5. End shift at 1900 hrs. Ethan Dietz on site today.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer			Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black			Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiuk			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan			Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis			Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Mark Berean			Arctic Cat Side by Side	50-924	1 Day
			Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	5	60.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-			Camp Facility		1 Day
Bull Cook					
Installer-Steve Byers	1	1 Day			
Installer-George A. Rowe	1	1 Day			
Installer-Robert Nelson	1	1 Day			
Installer-Don 'Skeeter' Cross	1	1 Day			
Installer-Doug Byers	1	1 Day			
Installer-Sedan McBride	1	1 Day			
	1	1 Day			

Denali Drilling			Equipment		
Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒


Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks	4	4	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

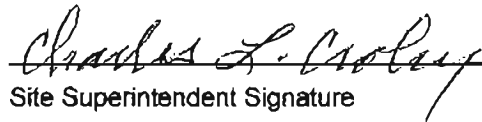
Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)
 Ethan Dietz from Satellite Alaska was on site today.

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


 CQCSM Signature

7/10/2009
 Date


 Site Superintendent Signature

7-10-09
 Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date

Thursday 7-2-09

Health and Safety Tailgate:

- Subjects: ① Foxes getting closer to the pod all of the time. Watch out. All the foxes on the Island are rabies carriers.
- ② Continue good lifting practices. Have to watch on liners because of the odd positions a person gets in on pulling, rolling, etc.

<u>Print Name</u>	<u>Signature</u>	<u>Company</u>
Chuck Croley	Charles S. Croley	BES
George Mack	George Mack	BERS
Allen Dennis	Allen Dennis	BERS
Maze Thompson	Maze Thompson	BERS
Johnny Willis	Johnny Willis	Bers
Armando Correa	A. Correa	Global
Douglas Byers	Douglas Byers	Global
SEAN MT McBRIDE	Sean M. McBride	Global
ROBERT NELSON	Robert Nelson	Global
George Rowle	George Rowle	Global
STEVE BYERS	Steven Byers	Global
DON SKEETER CROSS	Don Skeeter Cross	Global

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 009

Date or Time Period
Friday July 3rd, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

The highest wind speeds recorded today 3minute sustained wind at 34 mph with a high gust of 48.4 mph at 1600 hrs.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged?

Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Strong winds: This will affect everything that we will be doing, from where we position equipment for windbreaks, entering and exiting doors, etc., working on liner or on tent setups, and project support.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. The start of the shift for Bristol was 0630 hrs.2. At 0113 hrs a wall of wind, out of the east, hit this camp. We thought the camp was secure and picked up. We did not have a clue. When we got up, trash was strewn, lids of totes and Global boxes were blown all over, and container doors were swinging in the wind.3. At the start of the shift I started early discussions with Bering Air as to whether they were going to fly. The winds were steady at 18mph out of the east (perpendicular to the runway) and were gusting to 35 mph. Bering Air said that they would wait for a fly/no fly decision later. We were expecting the arrival of four additional bodies.4. Winds built throughout the day. The highest I recorded was steady at 28 mph w/gusts to 48 mph. I am sure that there were gusts exceeding 50 mph throughout the day.5. We attempted the "Push/Pull" test on the Satellite System. The 8' diameter dish was flopping in the wind so much that the Satellite people located in Denver, CO could not read anything. We went from a working system to one that didn't work because we were so far out of tune. The Satellite Tech is going to stay for another day or until we get this issue resolved. He saw the plane land this morning and he did not want any part of flying in these conditions anyway.6. We got a airplane in around 11 am. The wind was steady around 25 mph with gusts over 40 mph, perpendicular to the runway. He landed crab wise. We received 4 people and one person left the site.7. Bristol's accomplishments were drastically reduced today due to the winds, as were Global's efforts. Most of the work became inside work. Global worked on the bathroom and kitchen units. The Bristol crew worked on the pressure washer container. Moved some containers around with loaders. Did not use the Yard Goat as we were afraid that it would tip over in the high winds (a large sail and a high center of gravity).8. Communications back up at 2030 hrs after the high winds subsided significantly.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer			Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black			Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiyyuk			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis			Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Mark Berean			Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day

			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	8	97.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-			Camp Facility		1 Day
Bull Cook					
Installer-Save Byers	1	1 Day			

Installer-George A. Rowe	1	1 Day			
Installer-Robert Nelson	1	1 Day			
Installer-Don 'Skeeter' Cross	1	1 Day			
Installer-Doug Byers	1	1 Day			
Installer-Sedan McBride	1	1 Day			
	1	1 Day			

Denali Drilling			Equipment		
Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks	4	4	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

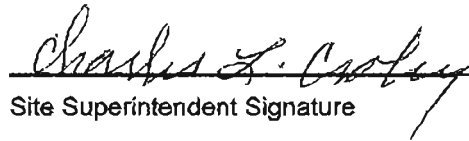
Carl Calugan (laborer), Mike Gallegos (operator), Jerry Jundt (replacement mechanic), and Ray Toro (Global Svcs baker) came on site today. Johnny Willis (Bristol mechanic) left site today.

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/10/2009
Date


Site Superintendent Signature

7-10-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date

Friday - 7-3-09

Daily HHS Meeting

Topic: Strong Winds. This will affect everything that we do.

- ① Where we position equipment for windbreaks, coming in and out of doors, etc. ② Working on liner or tent setups ③ Project support, etc.

<u>Printed name</u>	<u>Signature</u>	<u>Company</u>
Chuck Crolley	Charles L. Crolley	BOS
George Mack	George Mack	BERS
Johnny Willis	Johnny Willis	BERS
Allen Dennis	Allen Dennis	BERS
Maze Thompson	Maze Thompson	BERS
A Correa	Armando Correa	Global
Douglas Byers	Douglas Byers	Global
Robert Nelson	Robert Nelson	Global
Sean M. McBride	Sean M. McBride	Global
STEVE BYERS	Steven Byers	GLOBAL
George Rave	George Rave	Global
Don Skelton	Don Skelton	Global

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 010

Date or Time Period
Saturday July 4th, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

Wind from the south most of the day.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐

No ☒

N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐

No ☐

N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐

No ☒

N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐

No ☐

N/A ☒

Have samples been properly labeled and packaged?

Yes ☐

No ☐

N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐

No ☐

N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐

No ☐

N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Power Cord Safety: We will be burying some of these lines. Check line continuity with Steve's tester.

Secure all areas after storm.

Changing winds can cause new problems. Winds catch doors wrong way, etc.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. The start of the shift for Bristol was 0630 hrs. This is a new day with the winds coming from the south.2. Started the day with the Bristol crew moving four 20' containers along the east side of the camp to help buffer the camp from the east winds. Both the tents and the Modular units were rocking pretty good in the strong winds.3. Bristol finished the fuel containment cell for the ISO tanks today.4. Bristol got most of the beach area cleaned up today. Most of the containers were re-located closer to the road. The Denali Drilling drill rig was moved to a spot that will enable them to drive the drill off of the flat.5. The Satellite Tech got the communications system dialed in and the "Push Pull" test done. After this was done, I found out that Bering Air was closed for the 4th of July. I had not been told and did not have a clue. The Tech will have to stay over until tomorrow.6. Global set up the floors and got the skin on 4 additional sleepers.7. Bristol ended the shift at 1900 hrs.8. No airplanes today.

Reference (CLIN No.)	Activity	Location	Qty. BEESC	Contractor/	Complete/ %
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			Person	Subcontractor	Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer		0.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black		0.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie		0.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie		0.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiyyuk		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	0.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk		0.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride		0.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day

			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	8	84.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Tor	1	1 Day	Camp Facility		1 Day
Bull Cook					
Installer-Steve Byers	1	1 Day			
Installer-George A. Rowe	1	1 Day			
Installer-Robert Nelson	1	1 Day			
Installer-Don 'Skeeter' Cross	1	1 Day			

Installer-Doug Byers	1	1 Day			
Installer-Sedan McBride	1	1 Day			
Totals	8	1 Day			

Denali Drilling			Equipment		
Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks		8	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/12/2009
Date


Site Superintendent Signature

7-12-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date

Happy 4th of July

Saturday 7-4-07

Daily HRS Meeting

- Topics: ① Power Cord Safety: We will be
burying some of these lines. Check
line continuity with Steve's Tester
② Secure all areas after storm.
③ Changing winds can cause new problems;
winds catch doors wrong way, etc.

<u>Printed Name</u>	<u>Signature</u>	<u>Company</u>
Chuck Croley	Charles H. Croley	BCS
Allen Dennis	Allen Dennis	BERS
Terry Tondt	Terry Tondt	BERS
Carl D Calagan	Carl D Calagan	BERS
George Mack	George Mack	BERS
Michael Gallegos	Michael Gallegos	BERS
Maze Thompson	Maze Thompson	BERS
Robert Nelson	R Nelson	Global
Steve Byers	Steve Byers	Global
Sean M McBride	Sean M McBride	Global
Don Sketterson	Don Sketterson	Global
Douglas Byers	Douglas Byers	Global
George Rowe	George Rowe	Global





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 011

Date or Time Period
Sunday July 5th, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

Wind from the south most of the day.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged?

Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Tents are going up fast: Report any problems—electrical, heaters, etc. so that we can get them dialed in.

Be aware of your surroundings: Do not drive on electrical components, pick up trash as you see it. Add Global's Smart Ash to the mix.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. The start of the shift for Bristol was 0630 hrs.2. Bristol Crews working on pressure washer shack, equipment repairs, road repairs, sewer installation, and container organization.3. Global crews continued on building camp. Much of the work centered on finishing the mess hall and the Wash house. More floor boards were placed for sleeper units.4. Bristol ended the shift at 1900 hrs.5. We had one airplane today with freight, groceries, and one person leaving.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James			White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schenuer		0.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black		0.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie		0.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie		0.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiuk		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	0.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk		0.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride		0.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
			IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day

			DeWalt electric compressor		1 Day
					1 Day
			DeWalt Generator	Environ #1	
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	8	85.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-			Camp Facility		1 Day
Bull Cook					
Installer-Steve Byers	1	1 Day			
Installer-George A. Rowe	1	1 Day			
Installer-Robert Nelson	1	1 Day			
Installer-Don 'Skeeter' Cross	1	1 Day			
Installer-Doug Byers	1	1 Day			
Installer-Sedan McBride	1	1 Day			
	1	1 Day			

Denali Drilling			Equipment		
Party Chief-					
Rod Man-					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

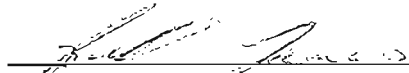
Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks		8	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			


Remarks (Include any visitors to project and miscellaneous remarks pertinent to work.)
Ethan Dietz, Communications Technician from Satellite Alaska, left site today.

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/12/2009
Date


Site Superintendent Signature

7-12-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-5-09

Conducted By: Chuck Croley

- Subjects:
- 1) Tents going up fast! Report any problems —
 - 2) electrical, Heater etc. so can get
 - 3) dialed in.
 - 4) Be aware of your surroundings! Do not swing on
 - 5) electrical, pick up trash as you see it.
 - 6) Add Global's Smart Ash to the mix

Printed Name	Signature	Company
Maze Thompson	Maze Thompson	BERS
Allen Dennis	Allen Dennis	BERS
Carl A. Colagan	Carl A. Colagan	BERS
Mike Gallegos	Mike Gallegos	BERS
GEORGE MACK	GEORGE MACK	BERS
Jerry Sundt	Jerry Sundt	BERS
Robert Nelson	Robert Nelson	Global
George Raul	George Raul	Global
JEAN-PAUL MCBIDE	JEAN-PAUL MCBIDE	GLOBAL
Douglas Byers	Douglas Byers	Global
STEVE BYERS	STEVE BYERS	Global
Dan Sletten Cross	Dan Sletten Cross	Global
RAY TAO	RAY TAO	GLOBAL

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 012

Date or Time Period
Monday July 6th, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

Wind from the south most of the day.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐

No ☒

N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total

Have Data Quality Objectives been achieved?

Yes ☐

No ☐

N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐

No ☒

N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity?

Yes ☐

No ☐

N/A ☒

Have samples been properly labeled and packaged?

Yes ☐

No ☐

N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.)

Yes ☐

No ☐

N/A ☒

Have required amount of QC trip blanks and rinsates been achieved?

Yes ☐

No ☐

N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Were hazardous wastes/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

PPE: Stick a little closer to your hard hats and safety glasses. We will have more safety glasses arriving shortly.

Communications: As we get radios in the vehicles, we may have to start announcing our direction of travel. Be aware of larger vehicles, which have the right of way.

Keep vehicles clean, trash picked up. This is for health as well as the trash blowing out of the vehicles.

There will be new bodies wandering around. Be aware of all personnel and their locations.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none">1. The start of the shift for Bristol was 0630 hrs. This is a new day with the winds coming from the south.2. Global put up an additional 4 tent, floors, frames, electrical & heat. They will finish flushing out the bed frames, mattresses, etc. tomorrow.3. 7 additional personnel came on site today: Eric Barnhill, Russell James, Jack Willis, Randy Black, Scott McClintock, Jamison Allan, and Jessica Cheatwood. See the remarks section for details. Personnel were given the Site Orientation.4. Most of the BERS Crew ended shift at 1900 hrs.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	11.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	13.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer		0.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	10.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie		0.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie		0.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiyyuk		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	10.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk		0.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride		0.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Certified Sampler-Eric Barnhill	1	13.0	IR Light Tower	52-128	1 Day
			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day

			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	11	131.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heaston					

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood					
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook					
Installer-Steve Byers	1	1 Day			
Installer-George A. Rowe	1	1 Day			
Installer-Robert Nelson	1	1 Day			

Installer-Don 'Skeeter' Cross	1	1 Day			
Installer-Doug Byers	1	1 Day			
Installer-Sedan McBride	1	1 Day			
Totals	8	1 Day			

ECO-Land, LLC			Equipment		
Party Chief-R. Scott McClintok	1	1 Day	Trimble Base Station	1	1 Day
Rod Man-Jamison L. Allan	1	1 Day			
Totals	2				

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

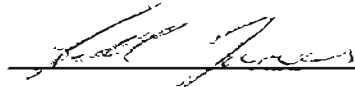
PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks		8	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Seven new personnel on site today: Russell James (CQCSM-BERS), Eric Barnhill (Environmental Sampler-BERS), Randy Black (Administrative Assistant-BERS), Jack Willis (Operator-BERS), Jessica Cheatwood (Firweather-Medic), R. Scott McClintok (Surveyor-Eco-Land, LLC), and Jamison Allan (ECO-Land, LLC-Surveyor).

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



CQCSM Signature

7/12/2009

Date



Site Superintendent Signature

7-12-09

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract Number / Delivery Order Number
W911KB-09-C-0013

UPC/Project Title and Location of Work
Chem. Ox & Intrusive Drum Removal/Landfill Cap
Northeast Cape, St. Lawrence Island, AK.

CQC Report Number
N. E. Cape 013

Date or Time Period
Tuesday July 7th, 2009

Client
USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

Wind from the south most of the day.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐

No ☒

N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
None			

Have Data Quality Objectives been achieved?

Yes ☐

No ☐

N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐

No ☒

N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO	AK102	4	4
RRO	AK103	4	4
PCB	EPA 8082	4	4
GRO	AK101	4	4
BTEX	EPA 8260B	4	4
RCRA Metals	EPA 6010A/7471	4	4

Have QA and QC samples been collected in the specified quantity?

Yes ☒

No ☐

N/A ☐

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐

Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

New people all over the place: All are trying to get a feel as to where everything is. The key to safety is communications. If you don't know, ask questions. If you see something wrong, notify Maze (area foreman) or myself (Site Supt./SSHO), or take care of it yourself immediately.

Running water not yet tested, drink and brush with bottles.

Do not feed animals.

Fill out medical forms

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none"> 1. The start of the shift for Bristol was 0630 hrs. 2. 4 new people on site today: Tyler Ellingboe, Scott Pittenger, Scott Schultz, and Mark Heaston. 5 people left the site. See remarks section for details. 3. Global personnel more or less finished the camp today. There a few punch list items that are left, but they can be taken care of by the bull cook as parts and pieces arrive on site. 4. HWAP initial samples were taken by E. Barnhill. 5. Eco-land, LLC surveyed the landfill.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	14.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	14.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer		0.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie		0.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie		0.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiyyuk		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk		0.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride		0.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	14.75	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe	1	12.0	IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day

			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	12	150.75	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heston	1	12.0			
Totals	2	24.0			

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day

Bull Cook					
Installer-Steve Byers	1	1 Day			
Installer-George A. Rowe	1	1 Day			
Installer-Robert Nelson	1	1 Day			
Installer-Don 'Skeeter' Cross	1	1 Day			
Installer-Doug Byers	1	1 Day			
Installer-Sedan McBride	1	1 Day			
Totals	8				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

ECO-Land, LLC			Equipment		
Party Chief-R. Scott McClintok	1	1 Day	Trimble Base Station	1	1 Day
Rod Man-Jamison L. Allan	1	1 Day			
Totals	2				

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			

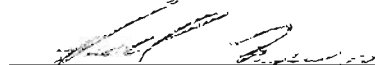
Volvo A40D Rock Trucks		8	8
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

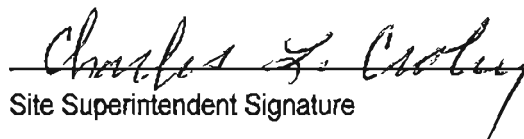
Four new persons on site today: Tyler Ellingboe (Haz Waste Specialist-BERS), Scott Schultz (Haz. Waste Specialist-Emerald Services), Scott Pittenger (AECOM), and Mark Heaston (AECOM). Five people left site today all Global Services Camp set up crew: Steve Byers, George Rowe, Don Cross, Doug Byers, and Sean McBride

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/12/2009
Date


Site Superintendent Signature

7-12-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-7-09

Conducted By: Chuck Coley

- Subjects:
- 1) New people all over the place: Keep
 - 2) to safety is communications. If
 - 3) you don't know, ask questions. If
 - 4) you see something wrong, notify Mize
 - 5) or myself or take care of it yourself
 - 6) immediately

Printed Name	Signature	Company
Michael Gallegos	<i>[Signature]</i>	BERS
Terry Jandt	<i>[Signature]</i>	BERS
Mize Thompson	<i>[Signature]</i>	BERS
John Willis	<i>[Signature]</i>	Bristol
Randy Ditch	<i>[Signature]</i>	BERS
Patricia Dennis	<i>[Signature]</i>	BERS
Eric Bannhill	<i>[Signature]</i>	BERS
Russell Juries	<i>[Signature]</i>	BERS
Carl D. Calagan	<i>[Signature]</i>	BERS
GEORGE MARCK	<i>[Signature]</i>	BERS
STEVE BYERS	<i>[Signature]</i>	Global
SEAN M. McBride	<i>[Signature]</i>	Global
Robert Nelson	<i>[Signature]</i>	Global
Dan Baker	<i>[Signature]</i>	Global
Don Skater Cross	<i>[Signature]</i>	Global
Rag Toro	<i>[Signature]</i>	Global
George Rowle	<i>[Signature]</i>	Global





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 014
Date or Time Period: Wednesday July 8th, 2009
Client: USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

Wind from the south most of the day.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: Yes

Initial: No

Follow-up: No

Notes: Prep Phase Meeting Checklists and Notes attached

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐

No ☒

N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
None			

Have Data Quality Objectives been achieved?

Yes ☐

No ☐

N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐

No ☒

N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Building Containments: Pulling heavy objects in strange positions. Many people working in a small area while equipment is working.

Filling out the Medical Questionnaire: Information is proprietary. The only person with access is the medic/medical practitioner. It is for your individual good for her to know of any medical concerns you may have.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Mobilization	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Three additional personnel came in to the Cape and two personnel left the Cape. Additional details in the Remarks Section. Bristol started preparation of the Decontamination containment cell (HWAP). Bristol also ended up hauling 5 loads of borrow material to road rebuild mostly in the vicinity of the road Y, from the old Operations and the Landfill. CQCSM and the Environmental Sampler spent a good portion of the day on mapping activities around the Landfill area. They also took a GPS reading of the new borrow area. BERS crew ended shift at 1900 hrs.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	10.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie		0.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie		0.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiuk		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	10.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride		0.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe	1	12.0	IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day

			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	14	165.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heston	1	12.0			
Totals	2				

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Asbestos/Lead Paint Specialist-Allen Carroll	1	1 Day			
Totals	1				

ECO-Land, LLC			Equipment		
Party Chief-R. Scott McClintok	1	1 Day	Trimble Base Station	1	1 Day
Rod Man-Jamison L. Allan	1	1 Day			
Totals	2				

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks			
Volvo A40D Rock Trucks	5	8	13
Monitor Wells Drilled			
Injection Wells Drilled			

Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Three new people on site today: Dan Pauk (Truck Driver-BERS), Bruce Schneuer (Fueled-BERS), and Allen Carroll (Asbestos/Lead Based Paint expert-SATORI Group). Two people left the site today: R. Scott McClintok (ECO-Land, LLC-Surveyor) and Jamison Allan (ECO-Land, LLC-Surveyor).

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

CQCSM Signature

Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Wednesday 7-8-09 Conducted By: Chuck Croley

- Subjects:
- 1) Building Containments: Pulling heavy objects
 - 2) in strange positions. Many people working
 - 3) in a small area w/ equipment working
 - 4)
 - 5) Filling out Medical Questionnaires Return
 - 6) to Medic

Printed Name	Signature	Company
DeWay Tundt		BERS
George Mack		BERS
Kathy Dufek		BERS
Mike Newton		ACOM
Allen Dennis		BERS
Carl D. Colagan		BERS
Russell James		BERS
Tyler Ellingboe		BERS
Maize Thompson		BERS
Scott Pittenger		ACOM
Jack Willis		Bentley
Michael Gallegos		BERS
Scott Schell		EMERALD
Robert Nelson		Chalco
Eric Barchall		BERS
Jessica Christensen		FWA





Preparatory Phase Meeting Checklist

Contract No.: W911-KB-09-C-0013

Date: 07-08-2009

Contract Title: In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Definable Feature of Work: Intrusive Drum Removal at Cargo Beach Road Landfill (Site 7)

Specification Section: _____ Review Completed: _____ Approval Obtained: _____

Personnel Present		
Name	Position	Organization
1. Chuck Croley	Site Superintendent/SSHO	BERS
2. Maze Thompson	Foreman	BERS
3. Russell James	CQCSM	BERS
4. Eric Barnhill	Environmental Sampler	BERS
5. Scott Schultz <i>RS</i>	Haz Waste Specialist <i>RS</i>	Emerald Services <i>RS</i>
6. Allen Dennis	Equipment Operator	BERS
7.		
8.		
9.		
10.		

(List additional personnel on reverse side)

Signature Page Attached

Submittals Involved		
Number and Item	Reviewed	Approval Code/Remarks
1. Work Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
2. Sampling & Analysis Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
3. Waste Management Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
4. Health & Safety Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
5.		

(List additional items on reverse side)

Have all items been approved?

N/A

Yes _____ No _____

Are all materials on hand?

Yes X No _____

Preparatory Phase Meeting Checklist

Tested? N/A

Yes

No

Reviewed? N/A

Yes

No

Properly Stored?

Yes

X

No

Remarks: SEE Attached notes.

Notes from Russell James and Chuck Croley attached.

Preparatory Phase Meeting Checklist

What items are delinquent or awaiting comments/approval	
1. Planning documents	4.
2.	5.
3.	6.

Tests required in accordance with contract requirements	
Test	Paragraph
1. None	
2.	
3.	

Has all preliminary work been completed in accordance with the specifications?

Yes ☒ No ☐

List of items you want to ensure were covered:

1. Accident prevention plan of EM385-1-1 in use and on site
2. PPE requirements for HWAP and Landfill drum handling
3. Safety clothing required when on job sites. Site specific safety procedures.
4. Wind/weather hazards.
5. Drum and liquid recovery procedures, tote transportation, HWAP collection summary sheet.
6. Silt fencing and site barrier
7. Preservation of survey benchmarks.
8. Construction of De-contamination pits & water impoundment pits. (HWAP)

Work efforts to be accomplished:

1. Delineate extent of drums by means of test pits, surface disturbance, and trenching
2. Remove liquid filled drums from landfill, transfer and decommission in HWAP
3. Containerize grossly stained soil from drum laden areas of landfill
4. Characterize wastes from drums and soil

Equipment safety checklists:

Attached for:

Preparatory Phase Meeting Checklist

1. _____
2. _____
3. _____

On-file for:

1. _____
2. _____
3. _____

Required Workmanship Levels:

1. N/A _____
2. _____
3. _____

Remarks (attach extra sheet if needed):

Extra sheets attached

Preparatory Phase Meeting Checklist

James 7/8/2009
EQCSM Date

USACE QAR

Date

Original and one copy to USACE QAR.

Retain copy in Bristol field project file.

Forward completed copy to Bristol QC Manager.

Preparatory Phase Meeting Checklist

Contract No.: W911-KB-09-C-0013

Date: 07-08-2009

Contract Title: In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Definable Feature of Work: Construct Landfill Cap at Cargo Beach Landfill (Site 7)

Specification Section: _____ Review Completed: _____ Approval Obtained: _____

Personnel Present		
Name	Position	Organization
1. Chuck Croley	Site Superintendent/SSHO	BERS
2. Maze Thompson	Foreman	BERS
3. Russell James	CQCSM	BERS
5. Allen Dennis	Equipment Operator	BERS
6. <u>ERIC BARNHILL</u>	<u>Environmental Sampler</u>	<u>BERS</u>
7.		
8.		
9.		
10.		

(List additional personnel on reverse side) Signature page attached

Submittals Involved		
Number and Item	Reviewed	Approval Code/Remarks
1. Work Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
2. Site Safety and Health Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
3. Stormwater Pollution Prevention Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
4.		
5.		

(List additional items on reverse side)

Have all items been approved? N/A

Yes _____ No _____

Are all materials on hand?

Yes X No _____

Tested? N/A

Yes _____ No _____

Preparatory Phase Meeting Checklist

Reviewed? N/A

Yes

No

Properly Stored?

Yes

X

No

Remarks: SEE ATTACHED NOTES

Notes from Chalk and Russell - attached

Preparatory Phase Meeting Checklist

What items are delinquent or awaiting comments/approval	
1. Planning documents	4.
2.	5.
3.	6.

Tests required in accordance with contract requirements	
Test	Paragraph
1. None	
2.	
3.	

Has all preliminary work been completed in accordance with the specifications?

Yes ☒ No ☐

List of items you want to ensure were covered: *SEE Attached notes*

1. Accident prevention plan of EM385-1-1 in use and on site
2. Traffic/Road Safety: Use of radios
3. Stockpile areas and stormwater runoff.
4. Weather awareness.
5. *Truck Haul Loads*
- 6.
- 7.

Work efforts to be accomplished:

1. Haul material from borrow source and stockpile for construction of landfill cap
- 2.
- 3.
- 4.

Equipment safety checklists:

Attached for:

*Heavy equipment check lists are in-progress,
vehicle inspections will follow*

Preparatory Phase Meeting Checklist

1. _____
2. _____
3. _____

On-file for:

1. _____
2. _____
3. _____

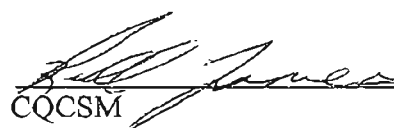
Required Workmanship Levels:

1. _____
2. _____
3. _____

Remarks (attach extra sheet if needed):

SEE ATTACHED

Preparatory Phase Meeting Checklist

 7/8/2009
CQCSM Date

USACE QAR Date

Original and one copy to USACE QAR.
Retain copy in Bristol field project file.
Forward completed copy to Bristol QC Manager.

Preparatory Phase Inspection for
Landfill Drum Removal & Drum De-coer

Landfill Cap at Cargo Beach (site 7)

<u>Name</u>	<u>Signature</u>	<u>Date</u>
Maze Thompson	Maze Thompson	7-8-09
Russell James	Russell James	7-8-09
Allen Dennis	Allen Dennis	7-8-09
Eric Barnhill	Eric Barnhill	7-8-09



Bristol

ENVIRONMENTAL & ENGINEERING
SERVICES CORPORATION

Job No. 49028

Project:	ISCO & Intensive Drum Removal	Computed:	Date:	7/5/09
Subject:	Prep Phase Meeting Checklist	Checked:	Date:	
Task:	Intensive drum removal at Cargo Beach Landfill (site 7)			Sheet 1 of 1
	Landfill Cap at Cargo Beach Landfill (site 7)			

RCJ Notes:

- 1) EM 385-1-1 is available in the office
- 2) ~~TES~~ Trench on E side of Road is deeper than 4 ft. We'll mark it, take photos and fill it in
- 3) Hard hats worn past the Road outside of Camp
- 4) Gloves on in the landfill if dealing w/drums
- 5) No silt fence around landfill, surrounded by vegetation
- 6) Permafrost may melt, creating water in the holes - will monitor
- 7) Chuck & Moe are figuring out where to put the Decon Area. Work on drums will be performed on a flat and the fluid will drain into the impoundment.
- 8) Test pits and trenching requirements will be met - currently have a lot of information on drum locations based on surface exposure. Lots of drums are exposed at the edges of the landfill. Not located interior or at top of hill
- 9) Skid steer w/ Telehandler will handle the totes w/ decon and landfill
- 10) Traffic Control - use radios, yield to heavy equipment.
- 11) Cleaned drums will be crushed and reconstituted into the landfill after decommissioning in HWAP
- 12) Decon (HWAP) area has been expanded and smoothed in prep for liner
- Scott Schultz not in attendance - met w/ Tyler Ellingboe
- 13) Most Debris and drums believed to be around edges, not in center or top of hill

Landfill Cap

- 1) Road Safety - Radios / Yield to heavy equipment
- 2) Sediment Runoff - Stockpiles will be monitored by Site Super on regular basis. Also the borrow source
- 3) Stockpiles will be along the roads where there is no indication of drums
- 4) Truckload Haul counts will be marked in the dailies
- Discharge of sediments to waters is not likely. - Chuck is also the Cesch and will monitor any potential sediment discharge and respond accordingly.

Landfill Drum Removal Procedures

- Remove drums, place in totes using excavator thumb or harness.
- All necessary equipment is available and ready

①

In-Situ Drum Removal Prep Notes

Materials on Hand. Yes: Equipment
liner D-Con materials

Open Ditch is deeper than 4'
we will Demarcate ditch until
~~flag~~ pictures taken and then we
will backfill.

PPE Beyond camp is Level D.

No silt fence at the beginning no ~~of~~
evidence of the possibility of soil
erosion

Through pot holing we realize that we
are going to have a water problem in
those trenches that are in high
organic material. We need clarifica-
tion on what to do with water.

{ At this point we believe that ~~ex~~
work plan test pit & trench require-
ments will be met in excavation
& removal of the presently exposed
drums. We think pot holing has
delineated most of the metal
anomalies. At present there is



240-7256 231

(2)

in excess of 100 exposed drums at the site.

Fluids to be removed by air driven diaphragm pumps.

Recovered & cleaned drums will be crushed and re-introduced to the land-fill.

Chuck Woley
Site Supt.

Notes on Landfill Cap. Notes

~~Stockpiles~~

SWPP Activities will be as required in the mine area. This will be determined by daily inspections by the Site Supt.

Stockpiling will be in areas with no metal anomalies or in road making to areas of trash that needs burial

Question for Bristol PM and USACE, Since we have proven that the majority of the landfill area is natural, could we mine this area for material and spread over the dump area.

Traffic Control by radios. Heavy equip has right of way.

Chuck Croy
Site Supt.

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 015
Date or Time Period: Thursday July 9th, 2009
Client: USACE, Alaska District

Weather Conditions: No formal weather was taken today.

Temp Low:

Temp High:

Wind from the south most of the day.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐

No ☒

N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
None			

Have Data Quality Objectives been achieved?

Yes ☐

No ☐

N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐

No ☒

N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☐ No ☒ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Use three point mount and dismount on equipment: Two feet and one hand or two hands and one foot. Do not jump from equipment.

Uneven terrain: All of the terrain is rough and uneven all over the four main areas of work. Watch your footing. We will be burying the TV cable to reduce trip hazards.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. We had one airplane today. It was a charter flight that went from Nome to Savoonga to pick up two local hires. The plane came to NE Cape to pick up one additional passenger that was leaving the site. See the Remarks section for additional details. Bristol crews continued work in the De-contamination area. BERS started to construct a road from Cargo Beach road towards the trash on the Southern side of the landfill area. In the late afternoon, work was switched to road building along the northern edge of the landfill. The road will make it easier to access the trash that seems to be mostly at the edges of the landfill. This road fill will eventually be incorporated into landfill cap material. BERS hauled 25 loads of material to the landfill for road building. Metallic anomaly areas were investigated using GPS unit. BERS personnel started helping AECOM setting up their container that will house their mixing unit and water heater. BERS personnel ended shift at 1900 hrs.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	14.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.25	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie		0.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie		0.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiyyuk		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride		0.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.25	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe	1	12.0	IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day

			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	14	170.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heston	1	12.0			
Totals	2				

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Asbestos/Lead Paint Specialist-Allen Carroll	1	1 Day			
Totals	1				

ECO-Land, LLC			Equipment		
Party Chief-R. Scott McClintok		1 Day	Trimble Base Station		
Rod Man-Jamison L. Allan		1 Day			
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk	8	0	8
Volvo A40D Rock Trucks	17	13	30
Monitor Wells Drilled			

Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

Remarks (Include any visitors to project and miscellaneous remarks pertinent to work.)

The SATORI Group Asbestos/Lead Paint Specialist, Allen Carroll was off site today. He left on a charter flight that was taking two local hire Savoonga residences to Nome for transportation to Anchorage and their Hazwoper physicals.

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/12/2009
Date


Site Superintendent Signature

7-12-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Thurs July 9th 2009 Conducted By: Chuck Croley

- Subjects:
- 1) Three Point Disinfect from Equipment
 - 2) 2 feet / 1 Hour or 2 Hours / 1 Foot
 - 3) _____
 - 4) upstream terrain: Watch footing - we will
 - 5) be burying TV line this AM
 - 6) _____

Printed Name

Signature

Company

Terry Tundt		BERS
Carl A. Calugan		BERS
George Macie		BERS
Michael Gallegos		BERS
Jack Willis		Bristol
KANIX BLAOK		BERS
Allen Dennis		BERS
Maze Thompson		"
MARK HEASTON		ARCOM
SCOTT POTTER		ARCOM
Scott Smith		EMERALD
Tyler Ellingboe		BERS
Russell Jones		BERS
Eric Barnhill		BERS
Dan Pank		BERS
Bruce Schmeier		BERS
Robert Nelson		Global





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 016
Date or Time Period: Friday July 10th, 2009
Client: USACE, Alaska District

Weather Conditions: Sky was overcast.

Temp Low:

Temp High: 44 degrees F

Wind from the northeast at 9 mph.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No
Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
None			

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
Bacterial Coliform	Potable Water Sample	1	1

Note: This sample was taken on behalf of Global Services by E. Barnhill (BERS) to determine the potability of the water running through the treatment system. It was packaged and sent to SGS labs in Anchorage.

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Communications on the road system-Is visual enough?: We have radios in most of the vehicles, but visual is a big portion of travel on the road. If things are not working, talk to the Foreman or the Site Supt. or in the H & S meetings and we can change things. Site Supt.s' motto—slower is faster.

Added communications: We are adding base stations in the office unit and the medical clinic.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. We had one airplane today. We had two new people on site today. See Remarks section for details. Bristol crews continued work on the De-contamination pit and the first water holding containment cell. Work continued on the construction of the road from Cargo Beach road towards the trash. By the end of the shift we are near completion of a drivable loop around the top of the landfill area. Some of this roadway is not over landfill debris, but the materials in the roadway can be used as landfill cap material. BERS crew worked on mounting the air driven diaphragm pumps. BERS crew worked on AECOM's chemical mixing container AECOM set up area at MOC and field lab/office in preparation for test pits. AECOM flagged area of concern for test pits. Excavation for test pits will commence after a Preparatory Inspection is held tomorrow. One sample was collected from the treated water and sent to SGS laboratory. BERS personnel ended shift at 1900 hrs. There are 23 persons in camp today.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	13.25	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie		0.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie		0.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe	1	12.0	IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day

			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	182.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	1 Day			
Mark Heaston	1	1 Day			
Bob Schlosser	1				
Totals	3				

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator	1	1 Day
Baker-Ray Toro	1	1 Day	Camp Facility	1	1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)	25	8	33
Volvo A40D Rock Trucks – S. McBride (DTO 553)	17	30	47

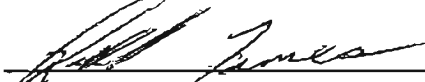
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Sean McBride (BERS Truck Driver) and Bob Schloesser (AECOM Geologist) arrived on site today in a Navaho. Tyler Ellingboe (BERS Haz Waste Specialist) went off-site.

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



CQCSM Signature

7/13/2009

Date



Site Superintendent Signature

7-13-09

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Friday
7-10-09

Conducted By: Chuck Crasley

- Subjects:
- 1) Communications on the road with
 - 2) trucks - Is visual enough?
 - 3) _____
 - 4) Added communications: Installing
 - 5) CB Base Stations
 - 6) _____

<u>Printed Name</u>	<u>Signature</u>	<u>Company</u>
Allen Dennis	<i>Allen Dennis</i>	BERS
Danny Jundt	<i>Danny Jundt</i>	BERS
Jack Willis	<i>Jack Willis</i>	Bristol
Dan Paulk	<i>Dan Paulk</i>	BERS
Michael Gallegos	<i>Michael Gallegos</i>	BERS
Maze Thompson	<i>Maze Thompson</i>	BERS
Scott Schell	<i>Scott Schell</i>	EMERALD
Tyler Ellingboe	<i>Tyler Ellingboe</i>	BERS
Scott Fennell	<i>Scott Fennell</i>	TECH
Mark Heston	<i>Mark Heston</i>	ARCOM
Bruce Schmeck	<i>Bruce Schmeck</i>	BERS
Carl D. Calugan	<i>Carl D. Calugan</i>	BERS
Eric Barnhill	<i>Eric Barnhill</i>	BERS
Jessica Cheatwood	<i>Jessica Cheatwood</i>	FWA
George Mack	<i>George Mack</i>	BERS
SANDY BLACK	<i>SANDY BLACK</i>	BERS





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 017
Date or Time Period: Saturday July 11th, 2009
Client: USACE, Alaska District

Weather Conditions: Sky overcast in the morning with fog on the mountain. Clear sky in the late afternoon.

Temp Low: 37°F

Temp High: 55°F

Wind direction variable throughout the day, 3-6 mph in the morning with calm periods in the afternoon. Mosquitoes very bad.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: Yes
Initial: Yes
Follow-up: No
Notes: Attached to DQCR

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	16	16
Trench PID	Soil Headspace	16	16

Note: Bag headspace samples were collected using a FID and PID by Bob Schlosser from the test pits at the ISCO site. Trench logs are included as separate sheet attached to DQCR.

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
None			

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Excavator Safety: Approach only from the front or where the operator can see. Make eye contact with the operator and let the operator acknowledge your approach. Stay in front of the excavation out of the reach of the swing arc of the bucket. Vehicles do not park anywhere close to the excavators. Limited visibility. Wear high visibility clothing.

Preparatory Inspection prior to the beginning of excavation.

Preparatory Inspection and notes attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Prep Phase Meeting was held this morning for the test pit digging (ISCO study). AECOM completed 4 test pits at the ISCO site. Trench logs are attached as separate sheets. BERS crew continued work on AECOM chemical mixing container. The Bristol pressure washer container was moved from the shop to the De-contamination pad. Silt Fence installed on south side of landfill beyond the toe of the slope. Two potholes were excavated in areas of known metallic anomalies. These were added to cover areas of the mapped anomalies that had been missed during previous potholing. Dust control measures were incorporated using the Bristol water truck. BERS personnel ended shift at 1900 hrs. 22 People in camp today.

Reference (CLIN No.)	Activity	Location	Qty. BEESC Person	Contractor/ Subcontractor	Complete/ % Complete

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie		0.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie		0.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew Samuel Mokiuk		0.0	Cat 988B Loader w/bucket & Forks	50-505	Down
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day

			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	14	169.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Totals					

Materials Received to be Used on or Incorporated into Site:

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

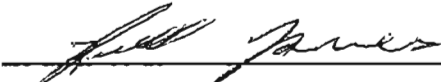
Progress Tracking Table

PROJECT SUMMARY TO DATE				
Item		Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)		25	33	58
Volvo A40D Rock Trucks – S. McBride (DTO 553)		18	47	65
Monitor Wells Drilled				
Injection Wells Drilled				
Loads of Water Hauled				
Gallons of Chemicals Mixed				
Gallons of Chemicals Injected				
ISCO Test Pits Excavated		4	0	4

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/13/2009
Date


Site Superintendent Signature

7-13-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Saturday
7-11-09

Conducted By: Charles Croley

Subjects:

Preparatory
Inspection be-
fore beginning
excavation

- 1) Excavator Safety: Approach only from the
- 2) front or where operator can see. Make eye contact
- 3) with operator and let the operator acknowledge
- 4) you can approach. Stay in front of excavation
- 5) beyond swing range of bucket & vehicles.
- 6) do not park anywhere close to excavations. Limited
visibility. wear high visibility clothing

Printed Name

Signature

Company

Michael Gallegos	<i>Michael Gallegos</i>	BERS
Sean MP McBride	<i>Sean MP McBride</i>	BERS
Mae Thompson	<i>Mae Thompson</i>	BERS
George Marx	<i>George Marx</i>	BERS
Jerry Jandt	<i>Jerry Jandt</i>	BERS
Don Park	<i>Don Park</i>	BERS
Jack Willis	<i>Jack Willis</i>	Boulder
Allen Dennis	<i>Allen Dennis</i>	BERS
Randy Black	<i>Randy Black</i>	BERS
Carl L. Calagan	<i>Carl L. Calagan</i>	BERS
Bruce Schenonen	<i>Bruce Schenonen</i>	BERS
Mike Heston	<i>Mike Heston</i>	ACORN
Scott Schille	<i>Scott Schille</i>	EMERALD
Robert Schlosser	<i>Robert Schlosser</i>	ACE
Scott Pienkner	<i>Scott Pienkner</i>	ACORN
Jessica Cheatham	<i>Jessica Cheatham</i>	ENX
Robert McKean	<i>Robert McKean</i>	Global
Eric Barnhill	<i>Eric Barnhill</i>	BERS
Russell James	<i>Russell James</i>	BERS

FIELD LOG OF TRENCH/PIT							
Project Name In Situ Chem Ox Pilot Study - Main Ops Complex Area St. Lawrence Island, NE CAPS							
Trench Number TPI		Project Number		Elevation and Datum		Location	
Equipment Supplier Bristol		Operator Alaze Thompson		Date and Time Started 7/11/09 0915		Date and Time Completed 7/11/09 0950	
Equipment Type		Trench Orientation N-S		Total Depth 6.5'		Total Number of Samples 3	
Bucket Width 4'	Trench Length ~14'	Trench Width ~5'	No. Of Samples	Boils 3	Ss	Drills	Hand Auger
Geologist or Hydrogeologist/Date R.M. Schlosser 7/11/09				Check by/Date			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
		Surface - grass w/ cobbles.	FILL	3	-	97	Description taken _____ feet
	1	Silty loam, occ. ang. gravels and cobbles, @ 2' exposed					from _____ end of trench.
	2	drum, no visible shearer odor @ 3' visible dk					
	3	staining, in silty loam (104R 3/4 - 3/3) dk yel brn.	FILL	3	-	97	headspace 3-4'
	4	dk brn, sft, dry, low no plasticity, slight petroleum odor, (FILL), some peat					FID - 52.1 ppm PID - 18.5 ppm
	5	@ 5' dk grey, silt. Hbrn	FILL	-	-	70	headspace 4-5' FID - 556 ppm
	6	gy-gy brn (104R 10/2 - 5/2) dont peat and org, appears to be fill, strong pet odor w/ staining, occ mottled					PID - 144 ppm headspace 5-6' FID - 902 ppm PID - 200 ppm
		104 7/1, drum & debris @ 6' - 6.5' @ 6.5'					
		TD @ 6.5'					

Trench orientation
digging North to South.

Took 5 photos #1 predig
#2 4-5' - staining - looking south
#3 5-6' - looking south
#4 completed trench looking E
#5 Completed trench, looking W

FIELD LOG OF TRENCH/PIT							
Project Name <i>In Situ Chem Ox Pilot Study - Main Ops Complex Area, N.E. Cape, St Lawrence Island, AK</i>							
Trench Number <i>TP2</i>		Project Number		Elevation and Datum <i>Unknown</i>		Location	
Equipment Supplier <i>Bristol</i>		Operator <i>MAZE Thompson</i>		Date and Time Started <i>7/11/09 1030</i>		Date and Time Completed <i>7/11/09 1055</i>	
Equipment Type		Trench Orientation <i>W-E</i>		Total Depth <i>10'</i>		Total Number of Samples <i>4</i>	
Bucket Width <i>4'</i>	Trench Length <i>~10'</i>	Trench Width <i>4'</i>		No. Of Samples	Bulk <i>4</i>	So <i>-</i>	Drive <i>-</i>
Geologist or Hydrogeologist/Date				Check by/Date			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
	1-	Surface - grass w/ rxs.	FILL				Description taken _____ feet
		Silty loam w/ abnt org	(CL)	5	-	95	from _____ end of trench.
	2-	mat to 1.5' dk brn - dk yel					
		brn 10YR 3/3-3/4 earthy, occ					headspace 3.5-4'
	3-	small pebbles w/ occ rxs @					FID 740 ppm PID 160ppm
		3.5' lt gray - gy brn 10YR					
	4-	10YR 5/1-5/2 stained clayey					
		silt, abnt lrg gravels,	CL	3	-	97	
	5-	arg - appear to be fill					
		to 2.3-4' @ 4.5' lt gy					
	6-	2/2 w/ low plasticity, st,					
		@ 7' silty loam w/ abnt					headspace 6-6.5
	7-	dent, st, stained w/	CL	-	-	100	FID 1040ppm PID 420ppm
		strong pet. odor, no lrg					
	8-	fractions, strong odor					headspace 7-7.5'
		becoming clayey silt					FID 720ppm PID 140ppm
	9-	@ 8.5' dk brn - dk yel					
		brn, 10YR 3/3-3/4					headspace 9.5-10.0
	10-	TD @ 10'					FID 580ppm PID 204ppm

Trench orientation digging from west to east.

* Note - Seeps @ silty clayey zone @ 4.5' and 9' after completion of trench/pit.

Pit backfilled w/ material from hole as closely to reverse order as possible

Take 3 photos 1 - pre-trench looking
2 - photo looking into pit 3 - photo looking SE

FIELD LOG OF TRENCH/PIT

Project Name <i>In Situ Chem ex Pilot Study - Main Ops Complex Area N.E. Cape, St Lawrence Island, AK</i>							
Trench Number <i>TP3</i>		Project Number		Elevation and Datum <i>Unknown</i>		Location	
Equipment Supplier <i>Bristol</i>		Operator <i>Maze Thompson</i>		Date and Time Started <i>7/11/09 1120</i>		Date and Time Completed <i>7/11/09 1345</i>	
Equipment Type		Trench Orientation <i>N-S</i>		Total Depth <i>11'4"</i>		Total Number of Samples <i>6</i>	
Bucket Width <i>4'</i>	Trench Length <i>6'</i>	Trench Width <i>4'</i>	No. Of Samples	Bulk <i>6</i>	Se <i>-</i>	Drive <i>-</i>	Hand Auger <i>-</i>
Geologist or Hydrogeologist/Date <i>R.M. Schlosser</i>				Check by/Date			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
	1	Surface gravel and grass.					Description taken _____ feet
		silty gravel (10YR 4/4)	ML/OL				from _____ end of trench.
	2	4' abnt 50-80mm ang gravels and occ cobbles (fill)	(FILL) ZC	-	80		headspace 2-2.5 FID: blank - PID: blank
	3	abnt silt org, grading to gravelly silt. @ 3.5' →	oxidation zone below fill				headspace 4-4.5'
	4	clayey silt 14brn g4-94 brn (10YR 6/2-5/2), appears	ML	-	-	100	FID 420 ppm PID 48 ppm
	5	partially frozen, sl pet odor, moist, non-low plasticity.	OH	PEAT			
	6	@ 5' peat, dk yel brn (10YR 4/6-3/4) v coarse org	ML	-	-	100	headspace 6-6.5 FID 32 ppm PID 4.0 ppm
	7	water @ 5.5' back to ML a/a, lt-med gy, low plasticity					
	8	dry, occ waxy when smeared, v slight pet odor	OH	PEAT			headspace 7.5-8' FID 41 ppm PID 17 ppm
	9	@ 8.5' - another peat layer					headspace 8.5-9 ppm
		2/2 dk yel brn - v dk gy brn	ML	-	-	100	FID 51 ppm PID 4.8 ppm
	10	(10YR 3/2-3/4) @ 10' dk gy - (94 10YR 4/1-3/1) clayey silt,					headspace 10.5-11
	11	moist, med compact, low plasticity, micaceous, sl pet odor.					PID 2.9 ppm FID 37.5 ppm

TD @ 11'4" - wet @ 11'0"

predig photo looking east.
photo of pit - east side

FIELD LOG OF TRENCH/PIT

Project Name <i>In Situ Chem Ox, Pilot Study - Main Ops Complex Area NE. Cape, St Lawrence Island, AK</i>							
Trench Number <i>TP4</i>		Project Number		Elevation and Datum <i>Unknown</i>		Location	
Equipment Supplier <i>Bristol</i>		Operator <i>Maze Thompson</i>		Date and Time Started <i>7/11/09 1400</i>		Date and Time Completed <i>7/11/09 1450</i>	
Equipment Type		Trench Orientation <i>N-S</i>		Total Depth <i>~7'±</i>		Total Number of Samples	
Bucket Width <i>4'</i>	Trench Length <i>~10'</i>	Trench Width <i>4'</i>		No. Of Samples	Bulk	Se	Drive
Geologist or Hydrogeologist/Date				Check by/Date			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
		Surface, grass & clayey					Description taken _____ feet
	1	Silt fill (104R 4/4 - 3/3)					from _____ end of trench.
		slightly mottled, large					
	2	and cobbles and gravels					
		throughout, moist, low -	ML	15	-	85	
	3	mod plasticity, sft, @ 3" (FILL)					headspace - 2-2.5
		becoming less clay w/ low					FID 1.2 ppm - PID 2.3 ppm
	4	plasticity, no visible					
		contamination or odor @					
	5	5' gray-ltgy (104R 5/1-7/1)	ML	-	-	100	
		clayey silt; low plasticity,					headspace 5-5.5
	6	sl moist w/ occ org, st-mcd					FID 138 ppm PID 176 ppm
		pet odor and H string @					
	7	6.5' sharp contact w/ dk					
		yel brn (104R 3/4-4/4) clayey	ML	-	-	100	
		silt w/ abn pet, strong					headspace 7-7.5
		pet odor @ cap string.					FID 1280 PID 205 ppm
		TD @ 7.5'					
		wet @ 7.5'					

Preparatory Phase Meeting Checklist

Contract No.: W911-KB-09-C-0013

7-11-2009
Date: ~~07-08-2009~~ *RS*

Contract Title: In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Definable Feature of Work: In Situ Chemical Oxidation Study at Former Main Operations Complex

Specification Section: _____ Review Completed: _____ Approval Obtained: _____

Personnel Present		
Name	Position	Organization
1. Chuck Croley	Site Superintendent/SSHO	BERS
2. Maze Thompson	Foreman	BERS
3. Russell James	CQCSM	BERS
4. Allen Dennis <i>RS</i>	Equipment Operator <i>RS</i>	BERS <i>RS</i>
5. Scott Pittenger	<i>scientist</i>	AECOM
6. Mark Heaston	<i>AECOM Activity Supervisor</i>	AECOM
7. <i>Eric Barnhill</i>	<i>Environmental Samples</i>	<i>BERS</i>
8. <i>Bob Schlosser</i>	<i>Geologist</i>	<i>AGC</i>
9.		

(List additional personnel on reverse side) *Signature Page Attached*

Submittals Involved		
Number and Item	Reviewed	Approval Code/Remarks
1. Work Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
2. Site Safety and Health Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
3. Stormwater Pollution Prevention Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
4. Sampling and Analysis Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
5.		

(List additional items on reverse side)

Preparatory Phase Meeting Checklist

Have all items been approved?

Yes No NA X

Are all materials on hand?

Yes X No NA

Tested?

Yes No NA X

Reviewed?

Yes No NA X

Properly Stored?

Yes X No NA

Remarks: See Attached Notes

Preparatory Phase Meeting Checklist

What items are delinquent or awaiting comments/approval	
1. Planning documents	4.
2.	5.
3.	6.

Tests required in accordance with contract requirements	
Test	Paragraph
1. None	
2.	
3.	

Has all preliminary work been completed in accordance with the specifications?

Yes ☒ No ☐

List of items you want to ensure were covered:

1. Accident prevention plan of EM385-1-1 in use and on site
2. Nearby wildlife, Excavator and Excavation Safety
3. Drum exposure on north side of site 27
4. General Procedures – Materials, Preparation
5. Test Pits, logging forms
6. Timeline – Bench Scale Testing, Drilling
- 7.

Work efforts to be accomplished:

1. Expose drums on the north side of the bank (site 27).
2. Excavate test pits for bench scale testing.
3. Discuss upcoming procedures.
- 4.

Preparatory Phase Meeting Checklist

Equipment safety checklists:

Attached for:

1. _____
2. _____
3. _____

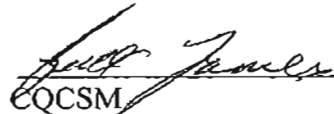
On-file for:

1. _____
2. _____
3. _____

Required Workmanship Levels:

1. _____
2. _____
3. _____

Remarks (attach extra sheet if needed): See Attached Notes

 7/11/2009
CQCSM Date

USACE QAR

Date

Original and one copy to USACE QAR.
Retain copy in Bristol field project file.
Forward completed copy to Bristol QC Manager.

Superintendent Notes


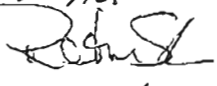
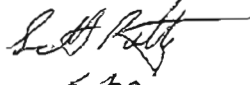



- Discussion of USACE remarks about buried drums discovered in areas wanted as test pit areas. Discussed equipment and procedures for excavating around drums. Shooting for 12 test pits today.
- Discussed down line schedule for drill rig. There will be two more Preparatory Inspections related to the Chem OK, one for Chemicals and one for the drilling.
- Excavator Safety: Covered in Daily Tailgate meetings, Communications between logger and operator essential
- Discussed trenching logging and procedures. Limits for entering excavations. Sloping walls of excavations.
- Limited access to work areas. Test pits may be left open. Site access to be restricted with visual barriers. The general area is not accessible to the public domain.

Chuck Cralley Site Sept 7-11-09

Saturday 7-11-09

Preparatory Inspection Signs For

Prep for Excavation at Chem Ox Site

<u>Printed Name</u>	<u>Signature</u>	<u>Company</u>
MARK HEASTON		AECOM
Bob Schlosser		AEC
SCOTT PITTEMBER		AECOM
Eric Bainhill		BERS
Maze Thompson		BERS
Russell James		BERS



Project: <u>NE Cape ISC, Drum Removal + Landfill Cap</u>	Computed:	Date: <u>7/11/2009</u>
Subject: <u>In-situ Chemical Oxidation at MOC</u>	Checked:	Date:
Task: <u>Prep Phase Meeting</u>		Sheet <u>1</u> of <u>1</u>

Notes:

- Initial will be held later today
- QAR will be notified earlier before the next meetings
- Be sure to wear safety shoes
- Drums exposed on North side of site 27
 - Email from C. Cosakowski suggests the drums are not the source of contamination or free product.
 - try and learn more about them today
 - Maze will be the operator at MOC
- Test pits procedures
 - excavate 10' or to groundwater - check out the lithology
 - WT specifies 12 test pits → up to 12 → 9 or 10 are already staked
- Approximately 1 week for TOD and Test Pit sampling
 - Drilling still about 1 week away
- Next few days are primarily going to be test pits
- Trench logs - communication w/excavator - copies for our records of the log sheets
- No entry in holes greater than 4' deep
- What if's: Drums and excavation around drums
- Limit access to the site - flag work site
- General Camp safety - set aerosols to the side - ~~attach~~ keep out of burn barrel

James COLSM 7/11/09

Initial Phase Inspection Checklist

Contract No.: W911KB-09-C-0013

Date: 7/11/2009

Contract Title: NE Cape In-situ Chemical Oxidation Study/Intrusive Drum Removal and Landfill Cap

Definable Feature of Work: In-Situ Chemical Oxidation Study at Former Main Operations Complex – Test Pits

Specification Section: _____ Review Completed: _____ Approval Obtained: _____

Personnel Present		
Name	Position	Organization
1. Chuck Croley	Site Superintendent	BERS
2. Maze Thompson	Foreman/Operator	BERS
3. Scott Pittenger	Scientist	AECOM
4. Mark Heaston	AECOM Activity Supervisor	AECOM
5. Bob Schlosser	Geologist	AGC
6. Russell James	CQCSM	BERS
7.		

(List additional personnel on reverse side)

B. Are materials being used in compliance with the contract plans and specifications?

Yes ☒ No ☐ If not, explain: _____

C. Are procedures and/or work methods in compliance with approved shop drawings, plans and specifications?

Yes ☒ No ☐ If not, explain: _____

D. Is workmanship acceptable?

Yes ☒ No ☐ Indicate areas of needed improvement (attach extra sheet).

E. Safety violations and corrective action taken:

Russell James 7/11/2009
CQCSM Date

QAR Date

Original and one copy to USACE QAR.

Retain copy in Bristol field project file.

Forward completed copy to Bristol QC Manager.





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 018
Date or Time Period: Sunday July 12th, 2009
Client: USACE, Alaska District

Weather Conditions: Sky overcast in the morning with clearing and partly cloudy sky in the afternoon.

Temp Low: 49°F

Temp High: 60°F

Winds calm to 5 mph. Mosquitoes ambushed us

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No
Notes: Attached to DQCR

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	14	30
Trench PID	Soil Headspace	14	30
Chlor-D-Tect 1000	Used oil	1	1

Note: Bag headspace samples were collected using a FID and PID by Bob Schlosser from the test pits at the ISCO site. Trench logs are included as separate sheet attached to DQCR. Field Screening was performed on oil recovered from the landfill. Results were less than 1000 ppm. Classified Non-Hazardous used oil

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
None			

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

We will have our first oil recovery today: Make sure you have all of your PPE with you.

Continue excavation Safety.

Mosquito Repellent: Have readily available in vehicles. We have limited supply of Deet on hand but will get re-stocked. Other types available.

Additional Added comments: Watch what you put in the garbage as garbage gets burned and we don't want any exploding cans. This can be cans from the mess hall or individual shaving cream cans. Any aerosol cans.

Mark any obstacles you find and report them for removal.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. HWAP decon area was prepped for drum removal activities. Hauling operations continued. One person arrived today and one person left the site. AECOM completed 4 more test pits at the ISCO site. Trench logs are attached as separate sheets. Dust control measures were incorporated using the Bristol water truck. One drum with a small amount of liquid was recovered from the landfill. Oil and water was collected in two 55-gallon drums. The old drum was transferred via fish tote to the HWAP and placed in the cleaning area. The two accumulation drums were placed in a fish tote and are sitting in the cleaning area as well. A total of 61 loads of material was moved and stockpiled at the landfill today. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie		0.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day

			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	181.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	2				

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BEESC (include names, reactions, and remarks.)

Instructions Given by BEESC to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)	31	58	89
Volvo A40D Rock Trucks – S. McBride (DTO 553)	30	65	95
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	4	4	8

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Michael Toolie arrived on-site today and Eugene Toolie headed to Anchorage for HAZWOPER physical.

Comments:

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


QCSCM Signature

7/13/2009
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☐

Concurs with the QC report?

Yes ☐ No ☐ N/A ☐

Additional comments or exceptions:

QA Safety Inspections/Observations not noted in above comments:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7/12/09

Conducted By: Chuck Croley

Subjects:

- 1) We will start our first oil recovery today!
 - 2) Make sure you have all your PPE with you
 - 3) including rubber gloves.
 - 4) Continue clean-up safety
 - 5) Mosquito Repellent: Have lin. vehicles, lined.
 - 6) Supply of Deet on hand.
- Mark obstacles

Additional
Comments: Ex-
ploding objects
in trash.

Printed Name	Signature	Company
SEAN MP McBride	<u>Sean MP McBride</u>	BERS
Carl D Calugan	<u>Carl D Calugan</u>	BERS
Terry Junt	<u>Terry Junt</u>	BERS
George March	<u>George March</u>	BERS
Scott Potensier	<u>Scott Potensier</u>	ACOM
MARK HEASTON	<u>Mark Heaston</u>	ACOM
Allen Dennis	<u>Allen Dennis</u>	BERS
Jack Willis	<u>Jack Willis</u>	Bristol
Mara Thompson	<u>Mara Thompson</u>	BERS
Michael Gallagher	<u>Michael Gallagher</u>	BERS
Bruce Schaefer	<u>Bruce Schaefer</u>	BERS
Russell James	<u>Russell James</u>	BERS
Van Paul	<u>Van Paul</u>	BERS
Scott Schulte	<u>Scott Schulte</u>	EMERALD
Robert Nelson	<u>Robert Nelson</u>	GLOBAL
Bob Schlessel	<u>Bob Schlessel</u>	ACE
Jessica Chestwood	<u>Jessica Chestwood</u>	FWA
RANDALL BILTON	<u>Randall Bilton</u>	BERS

FIELD LOG OF TRENCH/PIT

Project Name <i>In Situ Chem Ex Pilot Study, Majinops Complex Area, NE Cape, St Lawrence Island AK</i>							
Trench Number <i>TPE</i>		Project Number <i>112642.02</i>		Elevation and Datum <i>Unknown</i>		Location <i>Pilot Plot</i>	
Equipment Supplier <i>Bristol</i>		Operator <i>Mike Thompson</i>		Date and Time Started <i>7/12/09 1100</i>		Date and Time Completed <i>7/12/09 1140</i>	
Equipment Type <i>C4 322B</i>		Trench Orientation <i>West dipping East</i>		Total Depth <i>~10'</i>		Total Number of Samples <i>3</i>	
Bucket Width <i>4'</i>	Trench Length <i>~12'</i>	Trench Width <i>4'</i>	No. of Samples	Bulk <i>3</i>	Ss <i>—</i>	Drive <i>—</i>	Head Auger <i>—</i>
Geologist or Hydrogeologist/Date <i>R.M. Schlosser 7/12/09</i>				Check by/Date			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
	1	0-0.2' grass and roots					Description taken _____ feet
		dk yel brn (10YR 5/3-3/4)	GM	60	—	40	from _____ end of trench.
	2	silt matrix w/ abn aug (FILL) gravel clasts and ecc					
	3	cobbles, hd digging, etc -					headspace 3.5-4
		4.5' thin part band thinning	GM	65	—	35	FID 728 PID 220
	4	C4 322B (10YR 4/1) silt					
		w/ ecc gravels, etc. 2' peat					
	5	zone w/ staining and	AL	20	tr	80	
		clay red in part becoming					
	6	org silt, dk brn - yel brn					
		@ 9.5' - med - lt ay silt.					headspace 7.5-8
	7	clayey IP, partially frozen					FID 1750 PID 350
		dense, clean, uniform,	ML	—	—	100	
	8	sl lam, at odor, tight					
		no H ₂ O in pit when dug					
	9	lt ay clayey silt 2/2					headspace 9.5-10
							FID 40 PID 4 ppm
	10						

TDC 10'

photo predig looking south north

photo of north south wall from west end of RT

FIELD LOG OF TRENCH/PIT									
Project Name: <i>In Situ Chemical Pilot Study, Main Ops Complex Area, NE Cape, St Lawrence Island AK</i>									
Trench Number: <i>TP 7</i>		Project Number: <i>112642-02</i>		Elevation and Datum: <i>Unknown</i>		Location: <i>Pilot Plot</i>			
Equipment Supplier: <i>Bristol</i>		Operator: <i>Blaze Thompson</i>		Date and Time Started: <i>7/12/09 1015</i>		Date and Time Completed: <i>7/12/09 1050</i>			
Equipment Type: <i>CAT 322B</i>		Trench Orientation: <i>South Digging North</i>		Total Depth: <i>~8'</i>		Total Number of Samples: <i>2</i>			
Bucket Width: <i>4'</i>	Trench Length: <i>~12'</i>	Trench Width: <i>4'</i>		No. Of Samples: <i>2</i>	Bulk: <i>2</i>	Ss: <i>-</i>	Drive: <i>-</i>	Hand Auger: <i>-</i>	
Geologist or Hydrogeologist/Data: <i>R.N. Schlosser 7/12/09</i>				Check by/Date: _____					
SOIL DESCRIPTION									
LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS		
				G	S	F			
<i>FILL G.M.</i>	1	<i>Surface to 0.5' - grass, roots w/ silty gravel (10YR 3/3-3/4) @ 2' - sig rich zones</i>	<i>GM</i>				<i>Description taken _____ feet from _____ end of trench.</i>		
	2	<i>dark brn @ 3' - highly ex</i>	<i>(FILL 60 to 40)</i>						
	3	<i>silts, dk red brn just below</i>							
	4	<i>lt gy brn (10YR 4/2) met</i>					<i>headspace 3.5-4</i>		
	5	<i>yellow brn (10YR 5/4) w/ abn gravel clasts, ang throughout</i>	<i>ML</i>	<i>25</i>	<i>-</i>	<i>75</i>	<i>FID PID</i>		
<i>ML lt gy w/ gravel</i>	6	<i>no odor or visible staining, abn pebbles > 1" angular @</i>	<i>ML</i>	<i>40</i>	<i>-</i>	<i>60</i>			
	7	<i>5' silt becom. lty (10YR 4/1) w/ gravels throughout, strong pet. odor, water @ 7' to TD</i>					<i>headspace 7.5-8' FID 325 PID 70</i>		
	8	<i>TD @ 8'</i>							
		<i>it appears to be some perched water @ ~5'</i>							

(Cap foring)

72

*photo looking west Fredig
photo of excavator looking south TP6 @ night
photo of completed pit looking east*

FIELD LOG OF TRENCH/PIT

Project Name <i>In Situ Chemex Pilot Study - Main Ops Complex Area, St. Lawrence Island AK, NE CAFE</i>							
Trench Number <i>TP6</i>		Project Number <i>112642.02</i>		Elevation and Datum <i>Unknown</i>		Location <i>Pilot Plot</i>	
Equipment Supplier <i>Oristal</i>		Operator <i>Naze Thompson</i>		Date and Time Started <i>7/12/09 / 0730</i>		Date and Time Completed <i>7/12/09 / 1005</i>	
Equipment Type <i>322 B Cat</i>		Trench Orientation <i>South dipping North</i>		Total Depth <i>~8'</i>		Total Number of Samples <i>2</i>	
Bucket Width <i>4'</i>	Trench Length <i>~10'</i>	Trench Width <i>5'</i>		No. Of Samples <i>2</i>	Bulk <i>2</i>	Sh <i>-</i>	Drive <i>-</i>
Geologist or Hydrogeologist/Date <i>R.M. Schlusser 7/12/09</i>				Check by/Date			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
	1	surface grass w/ dk blk brn silt w/ ang gravels. over					Description taken _____ feet from _____ end of trench.
FILL	2	crumbly silty silty gravel (FILL), occ areas of red		75	tr	25	
GM	3	brn fck, matrix moist, no-v little plasticity, mod	GM (FILL)				headspace 3.5-4" FID 10ppm PID 10ppm 3ppm
	4	st, about ang gravels to 130mm w/ occ cobbles					
ML	5	no odor or staining, 0.5' silt becoming clayey at 0.5'	ML	10	tr	90	
DKGY	6	w gravels & a bit less %n, occ clay ext. moist					
PEAT	7	partially frozen, non plastic lam beds @ 7'-8" int'l	PEAT	-	-	-	headspace 6.5-7' FID 30ppm PID 13ppm
	8	peat bed, dk brn, returning to clayey silt @ 8' about H ₂ O draining	ML	-	-	100	
ML		in pit w/ strong pet odor and sheen. After measurement					
DK BRN		H ₂ O @ ~7 1/4' Bgl, sheen on H ₂ O					

TD hole @ 8'

photo looking west, Fire dig
photo looking ^{south north} west @ completed trench

FIELD LOG OF TRENCH/PIT

Project Name <i>In Situ Chemex Pilot Study - Main Ops Complex Area, St. Lawrence Island, NE Cape</i>							
Trench Number <i>TP5</i>		Project Number <i>112642 02</i>		Elevation and Datum <i>Unknown</i>		Location <i>Pilot Plot</i>	
Equipment Supplier <i>Bristol</i>		Operator <i>Maze Thompson</i>		Date and Time Started <i>7/12/09 1000</i>		Date and Time Completed <i>7/12/09 1930</i>	
Equipment Type <i>Cat 332B</i>		Trench Orientation <i>South dipping North</i>		Total Depth <i>~10'</i>		Total Number of Samples <i>4</i>	
Bucket Width <i>4'</i>	Trench Length <i>~10'</i>	Trench Width <i>4'</i>	No. Of Samples	Bulk <i>4</i>	Ss <i>-</i>	Drive <i>-</i>	Hand Auger <i>-</i>
Geologist or Hydrogeologist/Date <i>R. M. Schlosser</i>				Check by/Date			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
	1	Surface grass roots to gravelly silt 10YR 3/3-3/4 w (FILL)	5 SW	20	tr	tr	Description taken _____ feet from _____ end of trench.
	2	gravel to 130mm occ cobble (FILL), occ					
	3	sand @ 2' 1/4 y silt w/ gravels & cobbles	GH				headspace 2-2.5 FID-40 pid-blkd
PEAT	4	2/3, no odor or visible contamination, @ 3.5' bed to 4' dk gel brn (10YR 3/6)	PEAT	-	-	-	1 coarse peat bed
ML	5	@ 4' 1/4 y - med gr clayey silt, thin nodules to dk gel	ML	-	-	100	headspace 3.5-4 FID 30ppm pid bed
ML	6	brn clayey silt w/ gravels - (10YR 2/2)					
DK BEN	7	and cobbles, becoming more clayey, moist, low-moist					headspace 6.5-7
no odor	8	plastic @ 9' inc. 0% of gravel & cobbles @ 9'	ML	15	-	85	FID=60ppm PID=3.2ppm
slight odor @ 9'	9	1/4 y clayey silt similar (10YR 5/1) mottled (5YR 4/4)					headspace 9-9.5
moist	10	oxidized zones, occ clayey moist, med plastic, no odor	ML	-	-	100	FID=47ppm PID=30ppm

ML w/ gravel @ 9'

TD @ 10'

wet @ 10' - Bgl

Photo looking west predia

Photo looking @ east side of pit

FIELD LOG OF TRENCH/PIT

Project Name <i>In Situ Chem Ox, Pilot Study - Main Ops Complex Area NE Cape, St Lawrence Island, AK</i>							
Trench Number <i>TP4</i>		Project Number		Elevation and Datum <i>Unknown</i>		Location	
Equipment Supplier <i>Bristol</i>		Operator <i>Maze Thompson</i>		Date and Time Started <i>7/11/09 1400</i>		Date and Time Completed <i>7/11/09 1450</i>	
Equipment Type <i>Cat 322B</i>		Trench Orientation <i>N-S</i>		Total Depth <i>~17'</i>		Total Number of Samples	
Bucket Width <i>4'</i>	Trench Length <i>~10'</i>	Trench Width <i>4'</i>		No. Of Samples	Bulk	Se	Drive
Geologist or Hydrogeologist/Date <i>D.M. Schlosser</i>				Check by/Date			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
		Surface, grass, 0.5' clayey					Description taken _____ feet
	1	Silt fill (1042/4/4 - 3/3)					from _____ end of trench.
		slightly mottled, large					
FILL	2	and cobbles and gravels					
ML &		throughout, moist, low -	ML	15	-	85	
GRAVEL	3	mod plasticity, silt, @ 3"	(FILL)				headspace - 2-2.5
		becoming less clay w/ low					FID 1.2 ppm - PID 2.3 ppm
FILL	4	plasticity, no visible					
ML		contamination or odor					
	5	5' gray - lt gray (1042 5/1 - 7/1)	ML	-	-	100	
ML		clayey silt; low plasticity,					headspace 5-5.5
lt gray	6	sl moist w/ occ org. st-mod					FID 138 ppm PID 176 ppm
		pet odor and H string @					
ML	7	6.5' bluish contact w d/k					
uprl brn		gel brn (1042 3/4 - 4/4) clayey	ML	-	-	100	
		silt w/ abnt pet, strong					headspace 7-7.5
		pet odor @ cap thngs.					FID 1228 PID 205 ppm
		TD. @ 7.5'					

wet @ 7.5'





28,250 KGS
62,280 LBS
32.0 CU.MT.
1,130 CU.FT.

WARNING
MAY CONTAIN
EXPLOSIVE
MIXTURES WITH
AIR—KEEP IGNITION
SOURCES AWAY
WHEN OPENING

S.O.C.
5000

HANJIN
SHIPPING
CO., LTD.

**NON-HAZARDOUS
WASTE**

**NON-HAZARDOUS
WASTE**

R9

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 019
Date or Time Period: Monday July 13th, 2009
Client: USACE, Alaska District

Weather Conditions: Overcast and strong winds in the morning. Rain and strong winds in the afternoon.

Temp Low: 48°F

Temp High: 52°F

Winds were consistently above 20 mph with very strong gusts from the Southeast.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	28	28
Trench PID	Soil Headspace	28	28
Chlor-D-Tect 1000	Used oil	0	1

Note: Bag headspace samples were collected using a FID and PID by Bob Schlosser from the test pits at the ISCO site. Trench logs are included as separate sheet attached to DQCR.

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
None			

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (Include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

We will have oil recovery today: Make sure you have all of your PPE with you, including Tyvek, Saranex, Splash Shields, Vinyl Gloves. More safety glasses are on the way that can fit over prescription glasses. With the strong winds, it would be a good idea to wear goggles to prevent sand and dust from getting in your eyes.

Pressure washing will be put on hold during days with exceptionally strong winds.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Chuck held a meeting to brief personnel on status and activities while he is out for a couple days. Hauling operations continued. One person arrived today and one person left the site. See remarks for more information. AECOM completed 2 more test pits at the ISCO site. Trench logs are attached as separate sheets. The landfill drum removal excavation began on the south side of the roadway. Used oil was recovered and more than 10 drums were transferred to the HWAP for cleaning. Approximately 190 gallons of oil was recovered. A total of 59 loads of material was moved and stockpiled at the landfill today. 22 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	13.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schaefer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie		0.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	182.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	2				

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by _____ to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)	30	89	119
Volvo A40D Rock Trucks – S. McBride (DTO 553)	29	95	124
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	2	8	10
Liquid-Containing Drums Recovered	11	1	12
Used Oil Recovered	190	10	200
Batteries Recovered	1	0	1

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

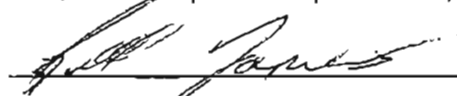
The QAR arrived on-site today, he was given on-site orientation by Chuck Croley, Randy Black and Maze Thompson. Chuck Croley left the site for Anchorage, and is expected back in camp on Thursday.

The drum removal activities were steady all day. More than 10 drums were recovered containing approximately 190 gallons of used oil. Some of the drums were pumped at the landfill, and others were placed directly into fish totes and transferred to the HWAP for oil transfer. To date, we have two accumulation drums filled with used oil, two accumulation drums containing oil/water, one partially filled accumulation drum, and one drum from the landfill containing approximately 50 gallons of oil. The oil from the two drums containing oil/water will be pumped into an accumulation drum and the water will be run through the oil-water separator.

The drum handling/pumping crew donned tyvek, goggles/splash shields and gloves.

Comments: Attached pictures depict in-situ pumping of drums and recovery operations. The load count for D. Pauk (DTO 552) is an estimate based on S. McBride's count. The actual load count will be obtained from D. Pauk and corrected as necessary.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/14/09
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

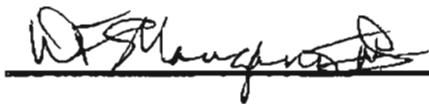
QA Safety Inspections/Observations not noted in above comments: Safe excavation efforts by the field crew + equipment operator at the Fargo Beach Road Landfill (site #7) allowed for the removal of ~190 gallons of oil, including at least one intact 55 gallon drum full. Possible transformer also found.

QAR Signature

Date

Supervisor's Initials

Date



7/14/2009



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Monday
7-13-09

Conducted By: Chuck Croley

- Subjects: 1) PPE: Learned a lesson in the wind about
2) oil splash. wear proper PPE for oil either
3) Saranex or Rain gear. Safety glasses or splash
4) shields
5) With strong winds we are in the old circle of safety
6) glasses vs goggles, etc. we are short on goggles
and safety glasses that cover prescription lenses. On
order

Printed Name

Signature

Company

Order

Maze Thompson	<i>Maze Thompson</i>	BERS
Jack Willis	<i>Jack Willis</i>	Bristle
Michael Gallegos	<i>Michael Gallegos</i>	BERS
MARIL HEASTON	<i>Maril Heaston</i>	ACCOM
Scott Schultz	<i>Scott Schultz</i>	EMERALD
Bruce Schnewer	<i>Bruce Schnewer</i>	BERS
Bob Schlosser	<i>Bob Schlosser</i>	AGCC
Dan Paulk	<i>Dan Paulk</i>	BERS
SCOTT PITENGER	<i>Scott Pitenger</i>	ACCOM
Michael Tonic	<i>Michael Tonic</i>	BERS
Russell James	<i>Russell James</i>	BERS
Jessica Chatewood	<i>Jessica Chatewood</i>	FWA
Eric Burnhill	<i>Eric Burnhill</i>	BERS
Jerry Tyndt	<i>Jerry Tyndt</i>	BERS
Carl D Calagan	<i>Carl D Calagan</i>	BERS
Sean MP McBride	<i>Sean MP McBride</i>	BERS
Allen Dennis	<i>Allen Dennis</i>	BERS
GEORGE MACIL	<i>George Macil</i>	BERS
RANDY ISACK	<i>Randy Isack</i>	BERS

FIELD LOG OF TRENCH/PIT

Project Name <i>In Situ Chem ox Pilot Study, Main Ops Complex Area, N.E. Cape, St Lawrence Island AK.</i>							
Trench Number <i>TP11</i>		Project Number <i>112642.02</i>		Elevation and Datum <i>Unknown</i>		Location <i>Pilot Plot</i>	
Equipment Supplier <i>Bristol</i>		Operator <i>Maze Thompson</i>		Date and Time Started <i>7/13/09 0920</i>		Date and Time Completed <i>7/13/09 1000</i>	
Equipment Type <i>322 B CAT</i>		Trench Orientation <i>SE dipping NW</i>		Total Depth <i>~10'</i>		Total Number of Samples <i>3</i>	
Bucket Width <i>4'</i>	Trench Length <i>~10'</i>	Trench Width <i>~5'</i>	No. Of Samples	Bulk	Ss	Drive	Hand Auger
				<i>3</i>	<i>—</i>	<i>—</i>	<i>—</i>
Geologist or Hydrogeologist/Date <i>R.M. Schlosser 7/13/09</i>				Check by/Date			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
FILL ML	1	surface soil w/ rcc					Description taken _____ feet
		gravels throughout	ML	65	tr	35	from _____ end of trench.
BM FILL	2	solid silt yellow clay					
		@ 3' ft gy silty gravel	GM	70	tr	30	
PEAT	3	@ 3.5' thin peat layer					headspace 3.5-4 (ppm)
		thin into @ 3.7' ft gy					FID-70 PID-3.2
	4	silt w/ scattered gravels, areas sl oxidized (black brown)	PEAT	—	—	—	
ML	5	@ 6' over rich & peat to 7' ft - clay (clay 7/1-4/1)	ML	10	10	80	
	6	clayey silt, tight, peat frozen, sl odor, tight	PEAT				
	7	dense to TD, v'sl odor, occ zones that					headspace 7-7.5 (ppm)
		have high clay content, mod plasticity, occ sticky					FID-720 PID-3.5
ML	8		ML	—	tr	100	
	9	no visible H ₂ O in					headspace 9.5-10 (ppm)
	10	open pit					FID-1300 PID-2.5

TO @ 10'

#1 Looking north. The dog photo looking NW at completed hole.

FIELD LOG OF TRENCH/PIT

Project Name In Situ Chem ex Pilot Study, Main Ops Complex Area, NE Cape, St Lawrence Island, AK

Trench Number <u>TPIC</u>	Project Number <u>112642.02</u>	Elevation and Datum <u>Unknown</u>	Location <u>Pilot Plot</u>
Equipment Supplier <u>Beistal</u>	Operator <u>Maze Thompson</u>	Date and Time Started <u>7/13/09 0840</u>	Date and Time Completed <u>7/13/09 0910</u>
Equipment Type <u>CAT 322B</u>	Trench Orientation <u>NE-SW</u>	Total Depth <u>~10'</u>	Total Number of Samples <u>3</u>
Bucket Width <u>4'</u>	Trench Length <u>~10'</u>	Trench Width <u>~5'</u>	No. Of Samples <u>3</u>
Geologist or Hydrogeologist/Date <u>R. M. Schlosser 7/13/09</u>		Check by/Date <u></u>	

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
	1	surface soil w/ graste					Description taken _____ feet
		1" silty gravel, gravels					from _____ end of trench.
Fill	2	5mm-10mm intermixed, matrix, sandy silt clay					
GM	3	10mm, pred. med. sand w/ silt throughout	GM	42	25	15	
Fill		becoming less silty w depth, moist, dense					headspace 4-4.5 (ppm)
GM/ML							FID=19 PID=34
GM	5	@ 10' silty color in	GM	60	30	10	
	6	sandy gravel, 4-10mm (104/124) from diesel					headspace 6.5-7 (ppm)
	7	to TD pred. well graded gravels w/ 5mm-5cm					FID=742 PID=151
	8	and gravel clasts & c/c cobbles, m-cs gr band					
	9	color a/a matrix					
ML	10	10.95, 11.94 silt w/	ML	41	10	91	headspace 9.5-10.0 (ppm)
		lcs					FID=1605 PID=192

TD @ 10' - no visible H₂O in hole when pit initially dug
 #1 looking west from
 #2 b/n of pit looking at NW corner of pit.

FIELD LOG OF TRENCH/PIT

Project Name <i>In Situ ChemOX Pilot Study, Main Ops Complex Area, NE Cape, St Lawrence Island, AK</i>							
Trench Number <i>TP9</i>		Project Number <i>112642.02</i>		Elevation and Datum <i>Unknown</i>		Location <i>Pilot Plot</i>	
Equipment Supplier <i>Bristol</i>		Operator <i>Maze Thompson</i>		Date and Time Started <i>7/13/09 0830</i>		Date and Time Completed <i>7/13/09 0900</i>	
Equipment Type <i>Cat 322 B</i>		Trench Orientation <i>South Digging N</i>		Total Depth <i>~10'</i>		Total Number of Samples <i>3</i>	
Bucket Width <i>4'</i>	Trench Length <i>~12'</i>	Trench Width <i>~5'</i>		No. Of Samples <i>3</i>	Bulk <i>3</i>	So <i>—</i>	Drive <i>—</i>
Geologist or Hydrogeologist/Date <i>R.M. Schlosser</i>				Check by/Date <i>—</i>			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
	1	surface, large gravel & cobbles w/ clayey silt matrix					Description taken <u>6</u> feet from <u>N</u> end of trench.
	2	demo remains, concrete, rd base	FILL				
		to 5' & 5' silty sandy	CL				
	3	gravel, oxidized bottom	Gravel				
	4	fine to medium gravel, highly oxidized to 6'					
	5	becoming silty sandy gravel					
	6	20-40mm gravels c/a					
	7	yellow silt & sand matrix	GM	75	25		headspace 5.5-6
	8	about eq throughout, becoming more sandy					FID = 5.2ppm PID = 2.1ppm
	9	w/ depth, less org to TD					
	10	cl rd c/a 5.5' to TD					
			GM	75	5	20	headspace 8-8.5
							FID = 176ppm PID = 69ppm
			GM	75	10	20	headspace 9.5-10
							FID = 305ppm PID = 1665ppm

PEAK OXIDIZED ZONE

GM

Sandy

TD @ 10'

photo 1 looking north pre-dig

photo 2 looking north completed PIT





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 020
Date or Time Period: Tuesday July 14th, 2009
Client: USACE, Alaska District

Weather Conditions: Mostly cloudy throughout the day with periods of clearing.

Temp Low: 48°F

Temp High: 52°F

Winds were steadily 15 - 20 mph with occasionally strong gusts from the Southeast.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: Yes
Follow-up: No
Notes: Attached to DQCR

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

RS 7/15/09
Yes ☒ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	39
Trench PID	Soil Headspace	0	39
Chlor-D-Tect 1000	Used oil	0	1

Note:

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
None			

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☐ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Give the excavator more space when standing around the landfill excavation. There are a lot of cables and wires in there that could build tension and rebound. Large buried objects could loosen footing underneath if removed by excavator.

Be sure to stay warm in cool, wet and windy weather. Take sufficient breaks to stay warm and alert.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Chuck held a meeting to brief personnel on status and activities while he is out for a couple days. Hauling operations continued. Two people arrived today and one person left the site. See remarks for more information. Landfill drum removal excavation continued. Six more drums were transferred to the HWAP for oil recovery and cleaning. Approximately 50 gallons of used oil was recovered. The south side bank of the landfill is greater than 50% investigated. Progress is steady. A total of 68 loads of material was moved and stockpiled at the landfill today. 22 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.25	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer, Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schreuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	8.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew—Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew—Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew—Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator—Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver—Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver—Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic—Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler—Eric Barnhill	1	12.25	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist—Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	176.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3	36			

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Hazardous Waste Specialist - Shane O'Neal	1	1 Day			
Totals	2				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (Include names, reactions, and remarks.)

QAR, Will Mangano, instructed Russell James and George Mack to set aside recognizable batteries pending further conversations with USACE personnel regarding disposal.

Remarks: BERS's understanding is to only remove and contain whole, intact batteries for disposal. One battery was set aside, as will others, pending further discussion per QAR's request.

Instructions Given by BERS to Subcontractors (Include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact?

Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact?

Yes ☐ No ☒

Are there any unforeseeable or weather-related delays?

Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)	35	120	154 155
Volvo A40D Rock Trucks – S. McBride (DTO 553)	33	124	157
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	11	11
Liquid-Containing Drums Recovered	6	13	19
Used Oil Recovered	50 gallons	200 gallons	250 gallons
Batteries Recovered	0	1	1

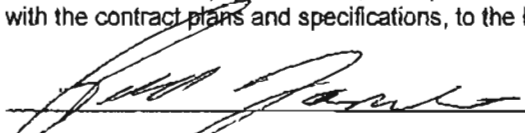
Remarks: Yesterday's DQCR stated that there were 10 total test pits in the ISCO area, when there were actually 11. Three were excavated on 7/13/2009. Trench logs accurately reflect test pit activities. Additionally, DQCR 019 should have stated that 12 drums were recovered from the landfill on 7/13/2009. Dan Pauk's load count was corrected. Yesterday's DQCR noted 30 loads, this number was corrected to 31. Current project summary table is accurate.

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

The haz-waste specialist from Emerald Alaska, Shane O'Neal, arrived on-site today and Scott Schultz left. Eugene Toolie arrived on-site today.

Comments: Photo 1 is looking south and depicts the south side drum excavation. Photo 2 is looking northeast and shows a black soil/staining that was removed for disposal.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/15/2009
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions: Discussed dust control measures along the haul road with CQCSM Russell James. Water truck will be used as necessary.

QA Safety Inspections/Observations not noted in above comments:

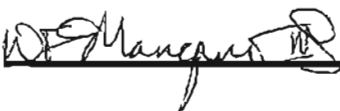
Work continues to progress satisfactorily.

QAR Signature

Date

Supervisor's Initials

Date



7/15/2009

Initial Phase Inspection Checklist

Contract No.: W911KB-09-C-0013

Date: 7/14/2009

Contract Title: NE Cape In-situ Chemical Oxidation Study/Intrusive Drum Removal and Landfill Cap

Definable Feature of Work: Intrusive Drum Removal at Cargo Beach Road Landfill (Site 7)

Specification Section: _____ Review Completed: _____ Approval Obtained: _____

Personnel Present		
Name	Position	Organization
1. Allen Dennis	Excavator Operator	BERS
2. Maze Thompson	Foreman/Operator	BERS
3. Michael Toolie	Laborer Drum Crew	BERS
4. Eric Barnhill	Environmental Sampler	BERS
5. Scott Schultz	Haz-Waste Specialist	Emerald Services
6. George Mack	Operator	BERS
7. Russell James	CQCSM	BERS

(List additional personnel on reverse side)

B. Are materials being used in compliance with the contract plans and specifications?

Yes ☒ No _____ If not, explain: _____

C. Are procedures and/or work methods in compliance with approved shop drawings, plans and specifications?

Yes ☒ No _____ If not, explain: _____

D. Is workmanship acceptable?

Yes ☒ No _____ Indicate areas of needed improvement (attach extra sheet).

E. Safety violations and corrective action taken:

Russell James 7/14/2009
CQCSM Date
WFM 7/14/2009
QAR Date

Original and one copy to USACE QAR.

Retain copy in Bristol field project file.

Forward completed copy to Bristol QC Manager.





07.14.2009 17:22

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 021
Date or Time Period: Wednesday July 15th, 2009
Client: USACE, Alaska District

Weather Conditions: Mostly cloudy throughout the day with periods of clearing.

Temp Low: 43°F

Temp High: 48°F

Winds were relatively calm around 5 – 10 mph with gusts from the Southeast.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No
Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	39
Trench PID	Soil Headspace	0	39
Chlor-D-Tect 1000	Used oil	0	1

Note:

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
None			

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Watch footing near debris, especially on banks and slopes. There's a lot of trash around the landfill that can cause unpredictable ground.

Always be ready for the wind and have safety glasses.

Watch out for traffic at the landfill and be cautious.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Hauling operations continued. Landfill drum removal excavation continued. Six more drums were transferred to the HWAP for oil recovery and cleaning. Metallic anomalies were further investigated. Two areas of metallic anomalies were excavated to a depth of one foot and no liquid-containing drums were found. The third is in progress and has turned up 6 drums containing product. Cleaning operations commenced today. A total of 25 loads of material was moved and stockpiled at the landfill today. Slug tests were performed at the ISCO site. 22 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.75	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Bamhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	180.75	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz		1 Day			
Hazardous Waste Specialist - Shane O'Neal	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

There was concern about landfill compaction early in the day regarding the 90% compaction stated in the work plan. BERS PM, Molly Welker was in discussions with USACE and Site Superintendent Chuck Croley throughout the morning and determined that the backfill will be laid down in 6-inch lifts and track walked with the equipment. BERS contends that this method will achieve acceptable compaction and is appropriately suited for the given conditions. Appropriate compaction will be determined by equipment operators before subsequent fill is added. If compaction questions arise, the foreman and site superintendent have sufficient knowledge/experience to address any questions or issues. This information was passed on to the QAR by CQCSM. QAR indicated that this will be an adequate approach and that backfilling of the excavated bank on the south side of the cargo beach road could commence.

QAR instructed BERS to display signage in the HWAP for emergency contacts and safety information. BERS responded by displaying the signs on the entrance to the HWAP.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)	25	155	180
Volvo A40D Rock Trucks – S. McBride (DTO 553	0	157	157
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	11	11
Liquid-Containing Drums Recovered	6	19	25

Used Oil Recovered	Unknown	250 Gallons	250 gallons
Batteries Recovered	0	1	1

Remarks: The volume of oil recovered yesterday is unknown. Drums are awaiting transfer and cleaning. Volumes will be updated when known.

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Drum crew donned splash shields, gloves and tyvek during cleaning operations.

Comments: Photo 1 is looking west and depicts water truck incorporated for dust control. Photo 2 shows an example of some of the drums being pulled from the landfill with liquid.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/16/2009
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

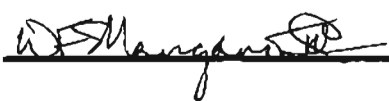
QA Safety Inspections/Observations not noted in above comments: *Work continues to be performed proficiently and safely.*

QAR Signature

Date

Supervisor's Initials

Date



7/16/2009



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-15-09

Conducted By: Maze Thompson

- Subjects:
- 1) Wind: safety glasses, hard hats
 - 2) Traffic: congestion @ work site
 - 3) Watch footing: glass, wire, etc. under foot
 - 4) _____
 - 5) _____
 - 6) _____

Printed Name	Signature	Company
Allen Duggins	<i>Allen Duggins</i>	BERS
Jack Willis	<i>Jack Willis</i>	Crystal
Gerrie Mace	<i>Gerrie Mace</i>	BERS
Terry Tjydt	<i>Terry Tjydt</i>	BERS
Michael Callagay	<i>Michael Callagay</i>	BERS
Scott Patermuel	<i>Scott Patermuel</i>	ACOM
Erin Beavert	<i>Erin Beavert</i>	BERS
Carl D. Coligan	<i>Carl D. Coligan</i>	BERS
EUGENE TOOLIE	<i>Eugene Toolie</i>	BERS
Russell Jensen	<i>Russell Jensen</i>	BERS
Bruce Schneider	<i>Bruce Schneider</i>	BERS
Michael Toolie	<i>Michael Toolie</i>	BERS
Jessica Cimentwood	<i>Jessica Cimentwood</i>	ERM
Robert Nelson	<i>Robert Nelson</i>	Global
Karl Rank	<i>Karl Rank</i>	Bers
Bob Schloesser	<i>Bob Schloesser</i>	ACC
Mark Nielsen	<i>Mark Nielsen</i>	ACOM
Randy Black	<i>Randy Black</i>	BERS



07.15.2009 11:55



07.15.2009 13:03

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 022
Date or Time Period: Thursday July 16th, 2009
Client: USACE, Alaska District

Weather Conditions: Cloudy and misty in the morning with drier periods in the afternoon.

Temp Low: 43°F

Temp High: 48°F

Winds were 5 – 15 mph from the Southeast, shifting to northeast winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No
Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	4	43
Trench PID	Soil Headspace	4	43
Chlor-D-Tect 1000	Used oil	0	1

Note:

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
None			

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Do not get under loads around the equipment. Be careful around the excavator when pulling drums out of the ground.

The landfill is a very high traffic area. Watch out for trucks and equipment. There are a variety of activities going on down there.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Backfilling operations commenced on the south/southeast road bank area. Landfill drum removal excavation continued. Liquid filled drums are continually unearthed. Thirteen drums were transferred to the HWAP from the landfill. Metallic anomalies were further investigated. An area south of the Cargo Beach Road was investigated and no drums were found. The oil/water separator was set up in the boot wash area between the 2 water impoundments. This area was lined with 20 mil liner and bermed for spill prevention. A total of 42 loads of material was moved and stockpiled at the landfill today. Two test pits were excavated at the ISCO site. The drilling crew arrived on a Bering Air flight this afternoon. See remarks for more. 24 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis		0.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew—Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew—Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew		0.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew—Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator—Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver—Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver—Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic—Jerry Jundt	1	12.0	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler—Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist—Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	180.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randal Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Amondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz		1 Day			
Hazardous Waste Specialist – Shane O'Neal	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

There was some discussion regarding silt fence installation during excavation on the northeast side of the landfill. After discussing the issue with Eric Barnhill (Environmental Sampler), QAR instructed BERS that it was not necessary in that area based on topography, prevalence of natural vegetation, and proximity to landfill.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)	28	180	208
Volvo A40D Rock Trucks – S. McBride (DTO 553)	14	157	171
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	2	11	13
Liquid-Containing Drums Recovered	13	25	38
Used Oil Recovered	50 gallons	250 Gallons	300 gallons
Batteries Recovered	2	1	3

Remarks: Oil volumes are an estimate. Many recovered drums are awaiting transfer into new accumulation drums.

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Stakes were installed in backfill areas with 6-inch hatch marks to aid operators in gauging lift heights. Randy Roberson and David Cramer arrived on-site today and were given site and safety orientation by Randy Black.

With a total of 38 drums so far, it is possible that the total could reach 50 very soon. To date, 76% of drums and approximately 12% of POL liquids presented in the scope of work have been recovered.

Map of Progress Attached

Comments: Photo 1, looking north, shows empty drums pulled from metallic anomaly area. Photo 2, looking south, shows the beginning stages of backfill along the south/southeast road bank along Cargo Beach Road.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[Signature]

CQCSM Signature

7/17/2009

Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Work is progressing safely and efficiently. Crew continues to conduct work professionally. Safety notes below:

QA Safety Inspections/Observations not noted in above comments: Maintain safe distances and within visibility of excavator operator during excavation activities. Smoking at least 50 feet from excavation area + drums. Closed, drums should be opened w/ excavator with personnel at safe distances.

QAR Signature

Date

Supervisor's Initials

Date

[Signature]

7/17/2009



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-16-09

Conducted By: Naze Thompson

- Subjects:
- 1) Watch Equipment Loads, Stay clear of Swing
 - 2) New Traffic pattern at fill
 - 3) Road safety, drive careful - Road deteriorating
 - 4) _____
 - 5) _____
 - 6) _____

Printed Name	Signature	Company
Michael Gallegos		BERS
Garry Jandt		BERS
GEORGE MARK		BERS
Russell James		BERS
Shane O'Neil		Kimberly A.S.
Nik Mangano		USACE
Eric Burnhill		BERS
MARK HENSTON		ACCOM
SCOTT PETERSEN		ACCOM
FRED SCHWABER		ACC
Jack Willis		Bristol
Allen Davis		BERS
Michael Train		BERS
EUGENE TROCK		BERS
Jess Chaturvedi		ENX
Dan Paule		BERS
Carl A. Calagan		BERS
KAROLYI, STAN		BERS
SEAN M. McBride		BERS
Bruce Schneider		BERS
Robert Alker		Global

FIELD LOG OF TRENCH/PIT

Project Name <i>In Situ Chemox Pilot Study - Main Ops Complex Area, NE Cape St Lawrence Island, AK</i>							
Trench Number <i>TP 13</i>		Project Number <i>112642.02</i>		Elevation and Datum <i>Unknown</i>		Location <i>Pilot Plot</i>	
Equipment Supplier <i>Bristol</i>		Operator <i>Maze Thompson</i>		Date and Time Started <i>7/16/09 0930</i>		Date and Time Completed <i>7/16/09 0900</i>	
Equipment Type <i>Pit 322 B</i>		Trench Orientation <i>EAST WEST, Beginning NE end of TP12</i>		Total Depth <i>7' 0"</i>		Total Number of Samples <i>2</i>	
Bucket Width <i>41</i>	Trench Length <i>10'</i>	Trench Width <i>5'</i>	No. Of Samples <i>2</i>	Bole <i>2</i>	Se <i>-</i>	Drive <i>-</i>	Hand Auger <i>-</i>
Geologist or Hydrogeologist/Date <i>R.M. Schlosser 7/16/09</i>				Check by/Date			

SOIL DESCRIPTION

LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS
				G	S	F	
	1	silty gravel as in TP12, gravels to 25cm,					Description taken _____ feet from _____ end of trench.
FILL	2	all sand throughout, med dense, stratist,	GP/				
	3	* UE clay, silt & gravel	GM				headspace sample 4.5-5
		brown, tight, dry,	(FILL)				PID 125 FID 555
Silty Peat, 1/		@ 4' is pebbled water					
		zone, about flow through					
ML	5	peaty silt just above lat					
		4', 1 silt & silt					
SILT	6	clay & gravels to top @ 7' - (red brown)					headspace 6.5-7' PID 256 FID 1635
	7	Test pit back filled immediately after completion.					

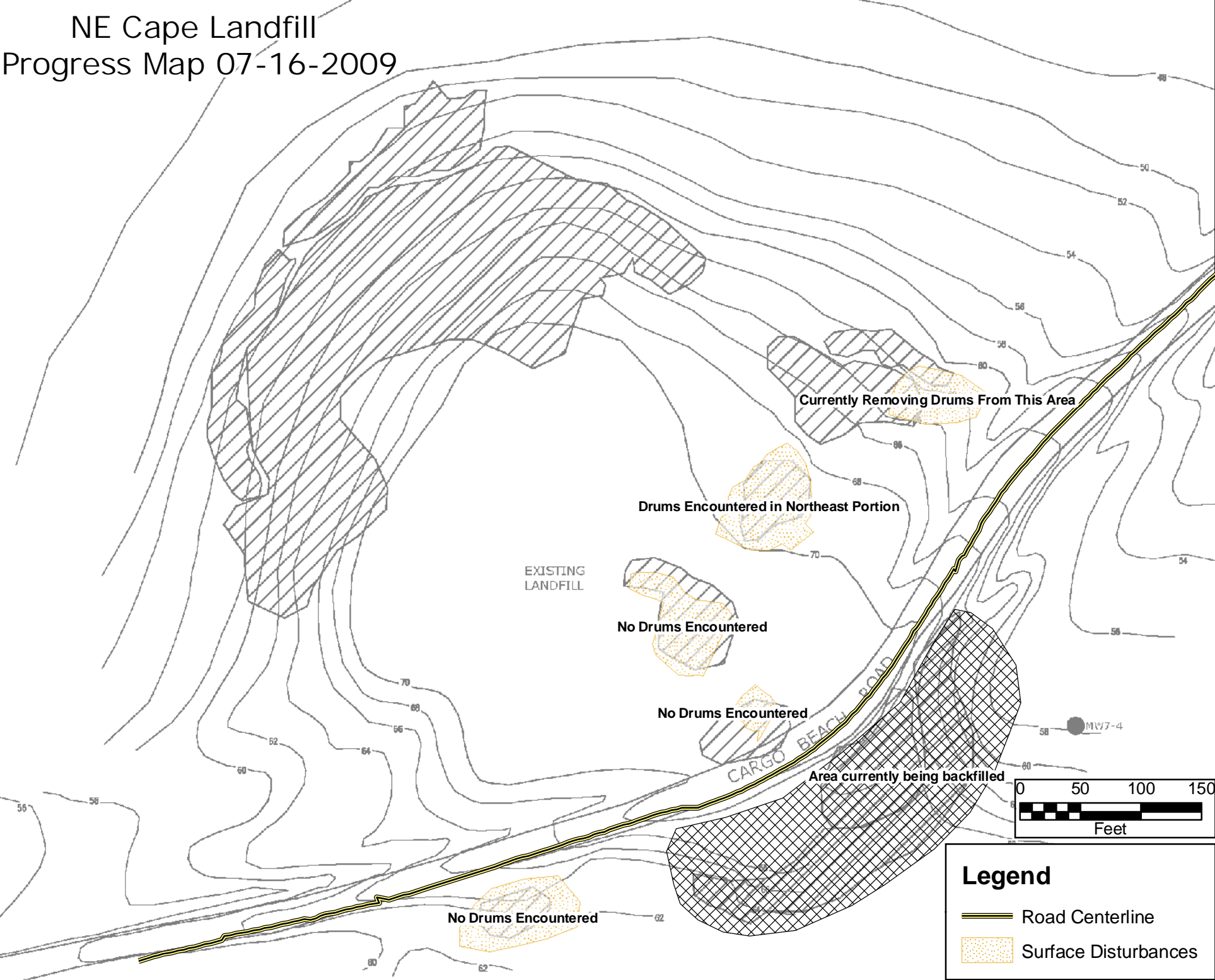
TP12 intersects pit 13 on north end

FIELD LOG OF TRENCH/PIT								
Project Name: <u>In Situ Chem OX Pilot Study - Main Ops Complex Area, NE Cape, St. Lawrence Island, AK</u>								
Trench Number <u>TP 12</u>		Project Number <u>112642.02</u>		Elevation and Datum <u>Unknown</u>		Location <u>Pilot Plot</u>		
Equipment Supplier <u>Oris Ed</u>		Operator <u>Maze Thompson</u>		Date and Time Started <u>7/16/09 0800</u>		Date and Time Completed <u>7/16/09 0830</u>		
Equipment Type <u>Cat 322B</u>		Trench Orientation <u>North dipping south</u>		Total Depth		Total Number of Samples		
Bucket Width <u>4'</u>	Trench Length <u>~10'</u>	Trench Width <u>15'</u>	No. Of Samples	Bulk	Ss	Drive	Hand Auger	
Geologist or Hydrogeologist/Date <u>R.M. Schlosser 7/16/09</u>			Check by/Date					

SOIL DESCRIPTION								
LITHOLOGY	DEPTH (FEET)	DESCRIPTION	USCS SYMBOL	Est. % of			COMMENTS	
				G	S	F		
FILL GM	1	surface grass - 0.25', silty gravel @ 11' aug					Description taken _____ feet from _____ end of trench.	
	2	gravel & air yellow silt matrix, sand	GM	60	10	30		
	3	2-3' dk yellow-brown 3.5' brown stained brown	FILL					
SP FILL	4	diaseal, odor, very gravelly sand, wet, perched H ₂ O	SP	95	5	tr	headspace 4.5-5' P10 BK9, F10 BK9	
	5	@ 4" sand ves + ssgr						
	6	@ 4" fine 4" pipe sand above used for bedding pipe						
	7	TD @ 5' water from perched zone @					headspace 3.5-4 P10 201 F10 1058	
	8	4" remaining in pit.						
	9							

photo looking north pre-pit

NE Cape Landfill
Progress Map 07-16-2009





07.16.2009 18:43



07.16.2009 17:00

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 023
Date or Time Period: Friday July 17th, 2009
Client: USACE, Alaska District

Weather Conditions: Rain in the morning tapering off by the afternoon.

Temp Low: 48°F

Temp High: 48°F

Winds were 5 – 15 mph from the Northeast.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: Yes
Initial: No
Follow-up: No
Notes: Attached to DQCR

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Used oil	0	1

Note:

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
None			

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Do not smoke around the drums. It's possible some of the liquids could be very flammable, so stay back when smoking

Jessica Cheatwood gave a presentation on medical safety equipment and where emergency bags are located in case of emergency involving multiple victims.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Backfilling operations continued on the south/southeast road bank area. Landfill drum removal excavation continued. Two drums were transferred to the HWAP from the landfill. The drum wash area was modified. An open top conex was set up in the impoundment to help reduce wind and minimize spray from the pressure washers. Drum cleaning continued. A total of 39 loads of material was moved and stockpiled at the landfill today. AECOM coordinated with BERS and Denali Drilling in preparation of soil boring and monitoring well installation. Plans were reviewed and inventory was taken of sampling supplies. A preparatory phase meeting was held. Three personnel arrived on a Security Aviation flight this afternoon and two people left the site. See remarks for more. 26 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	10.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schaefer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew—Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew—Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	10.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew—Carl Galugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator—Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver—Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver—Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic—Jerry Jundt	1	8.5	Cat 322BL Excavator	51-207	1 Day
Environ. Sampler—Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist—Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day

			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
					1 Day
			DeWalt Generator	Environ #1	
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 8KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	199.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randal Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O'Neal	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

QAR instructed BERS CQCSM that personnel smoking should stay away from the drums and should also give more room to the excavator by standing further back from the excavation. QAR also instructed BERS that opening of closed drums should only be done with bung wrench or brass punch. If those items are not available or unsuccessful, then the excavator teeth can be used with crew standing at a safe distance.

BERS will adhere to QAR's instructions. BERS CQCSM held an on-site safety briefing with drum crew to reinforce safety concerns expressed by QAR.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)	26	208	234
Volvo A40D Rock Trucks – S. McBride (DTO 553)	13	171	184
Monitor Wells Drilled			
Injection Wells Drilled			
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	2	38	40
Used Oil Recovered	Unknown	300 Gallons	300 gallons
Batteries Recovered	2	1	3

Remarks: Oil volumes are an estimate. Many recovered drums are awaiting transfer into new accumulation drums.

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Valerie Palmer (QAR), Johnny Willis, and Doug Byers arrived on-site today and were given orientation by Randy Black. Will Mangano and Jerry Jundt left the site today.

Comments: Photo 1, looking south, shows southern-most metallic anomaly area post excavation. Photo 2 shows a drum in tote following removal from landfill.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/17/2009
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☐ N/A ☒

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Anticipated number of drums & product (50) is rapidly being reached - will discuss with USACE PM & COR Monday.
QA Safety Inspections/Observations not noted in above comments:
Observed crew wearing proper PPE for tasks.

QAR Signature

Date

Supervisor's Initials

Date

Val. yPL

18 July 2009

Provided DD info to AECOM crew for ISCO. Perched water table and lower than 9200 ppm samples are proving problematic. Will attempt to find MWR Phase III (2003) report for more information.

Preparatory Phase Meeting Checklist

Contract No.: W911-KB-09-C-0013

Date: 07-17-2009

Contract Title: In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Definable Feature of Work: In Situ Chemical Oxidation Study at Former Main Operations Complex-Drilling Preparation

Specification Section: _____ Review Completed: _____ Approval Obtained: _____

Personnel Present		
Name	Position	Organization
Bob Schlosser	Geologist	AECOM
2. Maze Thompson	Foreman	BERS
3. Russell James	CQCSM	BERS
4. Will Mangano	DAR	USACE
5. Scott Pittenger		AECOM
6. Mark Heaston		AECOM
7. Eric Barnhill	Environmental sampler	BERS
8. Randy Roberson		Denali Drilling
9. David Cramer		

(List additional personnel on reverse side)

Submittals Involved		
Number and Item	Reviewed	Approval Code/Remarks
1. Work Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
2. Site Safety and Health Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
3. Stormwater Pollution Prevention Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
4. Sampling and Analysis Plan	Final revisions have been made. BERS comments submitted, awaiting comments/approval from USACE.	
5.		

(List additional items on reverse side)

Preparatory Phase Meeting Checklist

Have all items been approved?

Yes X No NA

Are all materials on hand?

Yes X No NA

Tested?

Yes No NA X

Reviewed?

Yes No NA X

Properly Stored?

Yes X No NA

Remarks: See Attached Notes

Notes by CQCSM, Russell James

Preparatory Phase Meeting Checklist

What items are delinquent or awaiting comments/approval	
1. Planning documents	4.
2.	5.
3.	6.

Tests required in accordance with contract requirements	
Test	Paragraph
1. None	
2.	
3.	

Has all preliminary work been completed in accordance with the specifications?

Yes ☒ No ☐

List of items you want to ensure were covered:

1. SEE Notes
2. General Procedures
3. Safety Procedures
4. _____
5. _____
6. _____
7. _____

Work efforts to be accomplished:

1. — SEE Notes —
2. Well Installation
3. _____
4. _____

Preparatory Phase Meeting Checklist

Equipment safety checklists:

Attached for:

1. _____
2. _____
3. _____

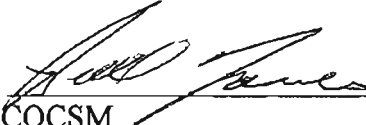
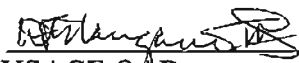
On-file for:

1. _____
2. _____
3. _____

Required Workmanship Levels:

1. _____
2. _____
3. _____

Remarks (attach extra sheet if needed): See Attached Notes

	
CQCSM	USACE QAR
7/17/2009	7/17/2009
Date	Date

Original and one copy to USACE QAR.
Retain copy in Bristol field project file.
Forward completed copy to Bristol QC Manager.



Bristol

ENVIRONMENTAL & ENGINEERING
SERVICES CORPORATION

Job No. 49028

Project: NE Cape	Computed:	Date: 7/17/09
Subject: ISO Pre-drill	Checked:	Date:
Task: Upcoming Tasks		Sheet 1 of 2

Drilling - Well Installations

- Sample Containers
- IDW
- Decon Area

- Work Plan changes have changed container Requirements
 - Scott has taken note of inventory will have a bottle order ready by this afternoon - have to find out exactly what you will be using for the samples.
- Necessary Components for drilling - components ready for drilling

- IDW - will keep store at ISO area and then bulk w/ the wastes from the landfill
 - AECOM will use open-top 55 gallon drums from

- Decon Area at drill site will be set up by Maze

- AECOM will perform drill inspection log and supply to BERS

- Site Restrictions will consist of caution tape

- AECOM will have access to BERS fridge and ice for sample storage

- Flight schedule vs. Hold times will be checked to ensure samples arrive to labs w/ sufficient time to sample.

- Eric will check w/ lab contact about receipt of samples

- Make sure to find out how we're going to collect BTEX

- AECOM Needs Revised Plans

[Signature] 7/17/09



Bristol

ENVIRONMENTAL & ENGINEERING
SERVICES CORPORATION

Job No.

19028

Project:	NE C&E	Computed:		Date:	7/17/09
Subject:	1500 Drill Well Install	Checked:		Date:	
Task:				Sheet	2 of 2

- samples will be collected above the water table within the screened interval of the wells
- AECOM will talk w/valerie, the NEW QAR to get her up to speed w/the project

7/17/2009

Bill James



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-17-09

Conducted By: Marc Thompson

- Subjects:
- 1) Smoking I - Careful when pulling drums
 - 2) _____
 - 3) Safety briefing from medic
 - 4) _____
 - 5) _____
 - 6) _____

Printed Name	Signature	Company
Carl D. Calungan	<i>Carl D. Calungan</i>	BERS
Allen Davis	<i>Allen Davis</i>	BERS
Justin Mack	<i>Justin Mack</i>	BERS
Jerry Tandt	<i>Jerry Tandt</i>	BERS
Shane Craig	<i>Shane Craig</i>	Emerald A.S.
Russell James	<i>Russell James</i>	BERS
Bob Schloesser	<i>Bob Schloesser</i>	ACE
Scott P. Bernier	<i>Scott P. Bernier</i>	ACE
Michael Gallegos	<i>Michael Gallegos</i>	BERS
Jack Willis	<i>Jack Willis</i>	Bristol
Muel Hester	<i>Muel Hester</i>	ACE
Eric Bernhill	<i>Eric Bernhill</i>	BERS
Michael Tootie	<i>Michael Tootie</i>	BERS
Don Paul	<i>Don Paul</i>	BERS
Sean M. McFadyen	<i>Sean M. McFadyen</i>	BERS
W.H. Mangano	<i>W.H. Mangano</i>	USACE
Randy Robinson	<i>Randy Robinson</i>	Penati Drilling
EUGENE TOLLE	<i>Eugene Tolle</i>	BERS
Bruce Schneider	<i>Bruce Schneider</i>	BERS
David Cramer	<i>David Cramer</i>	Donald Drilling
Robert Nelson	<i>Robert Nelson</i>	Chalco
Wendy Clark	<i>Wendy Clark</i>	BERS



07.16.2009 14:41



07.16.2009 17:53

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 024
Date or Time Period: Saturday July 18th, 2009
Client: USACE, Alaska District

Weather Conditions: Cloudy with rain and mist throughout the day.

Temp Low: 45°F

Temp High: 47°F

Winds were relatively calm 5 – 15 mph from the Southeast.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐

No ☒

N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Used oil	0	1

Note:

Have Data Quality Objectives been achieved?

Yes ☐

No ☐

N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐

No ☒

N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
None			

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Be aware of wet conditions. Use 3-point climbing techniques.

Take a break when the monotony of the job starts to get you tired.

Stay warm to guard against cold stress. Get out of the weather occasionally.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. One drum was transferred to the HWAP from the landfill. Drum cleaning continued at the HWAP. Oil from landfill drums is being transferred to accumulation drums. See remarks for more. A total of 39 loads of material was moved and stockpiled at the landfill today. AECOM installed soil borings in the ISCO area. It appears contamination levels in the ISCO study area are not as high as expected. 26 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	12.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day

			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	16	192	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randal Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O'Neal	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)	32	234	266
Volvo A40D Rock Trucks – S. McBride (DTO 553)	28	184	212
Monitor Wells Drilled			
Injection Wells Drilled			
Soil Borings Installed	1	0	1
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	6	40	46
Used Oil Recovered	Unknown	300 Gallons	300 gallons
Batteries Recovered	0	3	3

Note: Oil volumes are an estimate. Many recovered drums are awaiting transfer into new accumulation drums.

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

A lot of the oil being recovered from the landfill is very thick, possibly bunker fuel oil (bunker C, No. 6 fuel oil). Drum count is quickly approaching 50. It is very possible that 50 drums will have been recovered as of 7/19/2009.

AECOM had a conversation with the QAR regarding progress on the ISCO side. It seems that they are not encountering the magnitude of contamination that they were expecting at the site. Further conversations with the USACE may be necessary to determine the best plan of action from this point forward.

Comments: Photo 1, looking southeast, shows HWAP drum cleaning area. Photo 2 shows a drum in tote following removal from landfill. Photo 2, looking west, shows the stockpile at the landfill.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature


Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

The oil/water separator is not working well with the viscous product. Drum wash water is only being run through the scrubber before being sent to the supposedly clean water impoundment; there is an oily sheen on water that has already been run through the scrubber. More scrubbing will be necessary before water can be discharged (sampling needs to occur was well).

Provided the 2003 Phase III MWH report to AECOM crew. They had apparently requested it previously, but it had not been delivered. ISCO pilot location is proving to have some complications. Contamination is less than expected, there is more silt than expected, and there is perched water. The water also appears to be confined, and gauged by the significant head pressure in bore hole 1.

QA Safety Inspections/Observations not noted in above comments:

It was brought to the CQCSM's attention that some workers in the drum washing area were not wearing proper eye protection. Using air-powered tools and having significant splash hazards required eye protection. Normal prescription glasses are not sufficient. This is be discussed at tomorrow's safety meeting.

Noted that basically no one was wearing their seat belt while in moving vehicles. Seatbelt use in motorized equipment is required by EM 385-1-1 and is most likely a Bristol SOP as well. This will also be discussed at tomorrow's safety meeting.

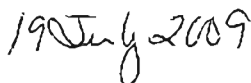
QAR Signature

Date

Supervisor's Initials

Date







Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-18-09

Conducted By: Maze Thompson

Subjects:

- 1) Stick Footing, Wet, use handholds
- 2) Monotony - Take a break if you need to
- 3) Cold Stress - Stay Warm & dry
- 4) _____
- 5) _____
- 6) _____

Printed Name	Signature	Company
Michael Gallegos	<i>[Signature]</i>	BERS
Douglas Byers	<i>[Signature]</i>	BERS
Richard J. J. J.	<i>[Signature]</i>	BERS
Shawn O'Neill	<i>[Signature]</i>	Emerald At.
Eric Barnhill	<i>[Signature]</i>	BERS
Johnny Willis	<i>[Signature]</i>	BERS
Mark Heston	<i>[Signature]</i>	ARCO
John Schlosser	<i>[Signature]</i>	ARCO
Daniel R. Cramer	<i>[Signature]</i>	Danali Drilling
Randy Robinson	<i>[Signature]</i>	Danali Drilling
Michael T. J. J.	<i>[Signature]</i>	BERS
Scott Armstrong	<i>[Signature]</i>	ARCO
Allen Daniels	<i>[Signature]</i>	BERS
Sean M. P. McBride	<i>[Signature]</i>	BERS
Dan Paul	<i>[Signature]</i>	BERS
EUGENE TULLIE	<i>[Signature]</i>	BERS
JACK WILLIS	<i>[Signature]</i>	Bristol
Curt D. Calligan	<i>[Signature]</i>	BERS
Bruce Schneider	<i>[Signature]</i>	BERS
George Marx	<i>[Signature]</i>	BERS
Robert Nelson	<i>[Signature]</i>	Chabot
Jessica Christward	<i>[Signature]</i>	FWR



07.18.2009 11:35



07.18.2009 11:43

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 025
Date or Time Period: Sunday July 19th, 2009
Client: USACE, Alaska District

Weather Conditions: Mostly cloudy.

Temp Low: 45°F

Temp High: 52°F

Winds were relatively calm 5 – 15 mph from the Northeast.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Used oil	0	1

Note:

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
None			

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Keep vehicle windshields clean. Watch for slippery, muddy conditions.

QAR reminded the crew to wear seatbelts in motorized vehicles. QAR also reiterated the importance of proper eye protection in the drum wash area.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. Two drums were transferred to the HWAP from the landfill. Drum cleaning continued at the HWAP. Oil from landfill drums is being transferred to accumulation drums. The totes containing dirty drums and oil are being stored in a heated Conex to reduce the viscosity of the oil, thus making the oil easier to pump. A total of 21 loads of material was moved and stockpiled at the landfill today. AECOM installed soil borings in the ISCO area and conducted lab experiments to find out if peat is affecting their field screening results. They discovered that the presence of peat will bias the results low. See remarks. 26 people were on-site this day. BERS personnel ended shift at 1830 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	12.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day

			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	16	192	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randal Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O'Neal	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)	12	266	278
Volvo A40D Rock Trucks – S. McBride (DTO 553	9	212	221
Monitor Wells Drilled			
Injection Wells Drilled			
Soil Borings Installed	2	2	4
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	2	46	48
Used Oil Recovered	Unknown	300 Gallons	300 gallons
Batteries Recovered	1	3	4

Note:

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

Borehole logs and drill rig inspection checklists are included from 7/18/09 and 7/19/09. Yesterday's DQCR stated that only 1 borehole had been drilled. It should have stated 2. To date, 4 soil borings have been drilled.

AECOM may be interested in sending samples to a fixed lab due to the fact that peat may be affecting their field screening instrument and returning a low biased result. AECOM will communicate with BERS project manager to formulate a plan of action.

Many of the drums being pulled from the landfill contain minimal oil, often mixed with water and sediment. Most of the drums are in poor condition, appearing crushed, rusted, punctured, shot, and with missing bungs.

Comments: Photo 1, looking northwest, shows northeast anomaly excavation. Photo 2, looking west, shows the northeast anomaly with metal debris and drums discovered during the investigation.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

CQCSM Signature

7/20/2009
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Observed activities at the drum washing area. Crew was all wearing proper eye protection today. Crew was also working quite diligently to ensure all POL product remained within the containment area and was not sprayed or tracked outside the area.

Mentioned to Foreman that I'd like to have a meeting regarding project schedule early this week. The USACE PM will be out of the office starting the end of this week and should know what the schedule will look like for the next two weeks so he can plan the site visit for himself and village representatives accordingly.

Observed drilling operations. Crew was nicely closing bore holes with bentonite chips, and decontamination procedures looked good. Further discussions about the ISCO study need to happen Monday before much more progress can take place.

QAR Signature

20 July 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-19-09

Conducted By: Maze Thompson

- Subjects:
- 1) Visibility - clean windows, mirrors, visors, glasses
 - 2) Lifting - Use proper technique, get help
 - 3) Clean work area - clean up, clean outrigs
 - 4) _____
 - 5) _____
 - 6) _____

<u>Printed Name</u>	<u>Signature</u>	<u>Company</u>
JACK WILLIS	<i>Jack Willis</i>	Bristol
EUGENE TOOLIE	<i>Eugene Toolie</i>	BERS
Michael Toolie	<i>Michael Toolie</i>	BERS
Allen Dennis	<i>Allen Dennis</i>	BERS
Johnny Willis	<i>Johnny Willis</i>	BERS
Shane O'Neill	<i>Shane O'Neill</i>	Enovul D & K
Valerie Palmer	<i>Val. Pal</i>	USACE
Russell Judds	<i>Russell Judds</i>	BERS
Dan Beyer	<i>Dan Beyer</i>	BERS
Randy Roberson	<i>Randy Roberson</i>	Donali Drilling
Michael Gallegos	<i>Michael Gallegos</i>	BERS
GEORGE MARK	<i>George Mark</i>	BERS
Scott Patterson	<i>Scott Patterson</i>	AFCom
Eric Barnhill	<i>Eric Barnhill</i>	BERS
Carl D. Calagan	<i>Carl D. Calagan</i>	BERS
Dan Fink	<i>Dan Fink</i>	BERS
Bruce Schmeier	<i>Bruce Schmeier</i>	BERS
Sam MP McBride	<i>Sam MP McBride</i>	BERS
Jessica Christensen	<i>Jessica Christensen</i>	FWA
Rob Schlosser	<i>Rob Schlosser</i>	ACC
MARK HANSEN	<i>Mark Hansen</i>	AFCom
David L. Crum	<i>David L. Crum</i>	Donali Drilling
RANDY DAVIS	<i>Randy Davis</i>	BERS

Drill Rig Inspection Checklist

Date <u>7-19-09</u>	Equipment Model/Type: <u>Mobil B-61/Trk.</u>
Project Name: <u>Bristol Enviro.</u>	Serial or License # <u>TD-42 5675 BR-AK</u>
Project # <u>ST. Lawrence Isl.</u>	Location Owner/Operator: <u>ST. Lawrence Isl.</u>
Project Manager: <u>Chuck Crowley</u>	Inspector: <u>Randy Roberson</u>

Place a (✓) in the "Yes" column if the requirement has been met. If a "No" is encountered, equipment must be removed from operation until the deficiency has been corrected. Describe deficiencies on page two of this form. Use the Comment column to note any additional information needed to certify the equipment. If a checklist item is found to be "Not Applicable," check "NA" and provide a comment in the appropriate box.

Item Name	Requirement	Yes	No	NA	Comment
Hydraulic systems controls and levers	No leak fittings or connections. Levers are in good operating condition. Fluid levels are full.	X			
Fuel, oil, water, and coolant lines	No leaks.	X			Yellow duck pond under trk motor
Hoses	No leaks in hoses or connections. No signs of excessive wear, kinked or bent hoses.	X			
Gauges	Operational and visible to operator.	X			
Emergency kill switch and life line	Operational and accessible to operator.	X			operator side
Shear pins	In place.	X			
Drive chains	No signs of excessive wear, broken or defective links.	X			
Parking brakes	Set and operational.	X			use wheel chocks
Outriggers	No leaks. Set on pads (as necessary to avoid damage).	X			
Windshield Wipers	Operational.	X			
Lights (head, tail and running lights)	Operational and without cracked lenses.	X			
Back-up alarm	Operational, spotter used.	X			use spotter/sound horn 3 times
Cables and ropes	No fraying, birdnesting, flattening, stretching. Must be braided or properly clamped at connections.	X			
Pulleys, drums and spools	No excessive wear or cracking.	X			
Derrick/Mast	Locked in position. Frame is not cracked or bent.	X			

7/19/09

EARTH TECH

Drill Rig Inspection Checklist

Item Name	Requirement	Yes	No	NA	Comment
Hoists	Properly spooled cable, rated to lift loads.	X			
Safety equipment	Safety harness, fire extinguisher, flares, safety reflectors, first aid kit, grounding wire for fueling, and spill response equipment (for fueling and repairs).	X			
Guards	Power take-offs (PTOs) and all rotating parts designed with guards. Guards must have warning labels.	X			
Miscellaneous (as applicable)	Diverter systems; auger and head seals; cyclones; grout plant guards; etc. (list): • • •	X			
DEFICIENCIES (Explain all negative response and list corrective actions; all deficiencies must be corrected before the rig is entered into service): 1. 2. 3. 4. 5.					
Other Repairs, Routine Maintenance and/or Comments: Trk motor small leak rear main seal.					

Inspection Conducted and Certified by:

	Print Name:	Signature	Date:
Owner / Operator	Randy Roberson	Randy Roberson	7-19-09

Checklist Reviewed by:

	Print Name:	Signature	Date:
Earth Tech PM or SSO	MARA HEASTON	[Signature]	7-19-09

Drill Rig Inspection Checklist

Date 7-18-09	Equipment Model/Type: Mobil B-61 / Trk.
Project Name: Bristol Enviro.	Serial or License # TD-42 5675BR - AK
Project #	Location Owner/Operator: ST. Lawrence Isl.
Project Manager: Chmel Crowley	Inspector: Randy Roberson

Place a (✓) in the "Yes" column if the requirement has been met. If a "No" is encountered, equipment must be removed from operation until the deficiency has been corrected. Describe deficiencies on page two of this form. Use the Comment column to note any additional information needed to certify the equipment. If a checklist item is found to be "Not Applicable," check "NA" and provide a comment in the appropriate box.

Item Name	Requirement	Yes	No	NA	Comment
Hydraulic systems controls and levers	No leak fittings or connections. Levers are in good operating condition. Fluid levels are full.	X			
Fuel, oil, water, and coolant lines	No leaks.	X			Trk engine / contained with yellow duck pond
Hoses	No leaks in hoses or connections. No signs of excessive wear, kinked or bent hoses.	X			
Gauges	Operational and visible to operator.	X			
Emergency kill switch and life line	Operational and accessible to operator.	X			operators side
Shear pins	In place.	X			
Drive chains	No signs of excessive wear, broken or defective links.	X			
Parking brakes	Set and operational.	X			use wheel chocks
Outriggers	No leaks. Set on pads (as necessary to avoid damage).	X			
Windshield Wipers	Operational.	X			
Lights (head, tail and running lights)	Operational and without cracked lenses.	X			
Back-up alarm	Operational. spotter used.	X			use spotter / small Horn 3 times
Cables and ropes	No fraying, birdnesting, flattening, stretching. Must be braided or properly clamped at connections.	X			
Pulleys, drums and spools	No excessive wear or cracking.	X			
Derrick/Mast	Locked in position. Frame is not cracked or bent.	X			

7/18/09

EARTH TECH

Drill Rig Inspection Checklist

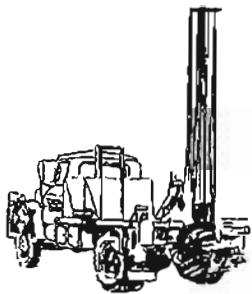
Item Name	Requirement	Yes	No	NA	Comment
Hoists	Properly spooled cable, rated to lift loads.	X			
Safety equipment	Safety harness, fire extinguisher, flares, safety reflectors, first aid kit, grounding wire for fueling, and spill response equipment (for fueling and repairs).	X			
Guards	Power take-offs (PTOs) and all rotating parts designed with guards. Guards must have warning labels.	X			
Miscellaneous (as applicable)	Diverter systems; auger and head seals; cyclones; grout plant guards; etc. (list): • • •	X			
DEFICIENCIES (Explain all negative response and list corrective actions; all deficiencies must be corrected before the rig is entered into service):					
1. 2. 3. 4. 5.					
Other Repairs, Routine Maintenance and/or Comments:					
Trk small oil leak. rear main seal / major repair work. contain with yellow containment duck pond. XXXXXXXXXXXXXXXXXXXX					

Inspection Conducted and Certified by:

	Print Name:	Signature	Date:
Owner / Operator	Randy Robinson	Randy Robinson	7-18-09

Checklist Reviewed by:

	Print Name:	Signature	Date:
Earth Tech PM or SSO			



Denali Drilling Daily Work Report Time Sheet

W.O. # 8850

Date 7-18-09
M T W T H F S S

Shift Day

Project Beishan Environmental - St. Lawrence Isl.

Weather Overcast - drizzle

Activities & Progress Drill two T.H.s with 4 1/2" ID. HS augers with 2.5' TD split spurs

Narrative: 6:30am to 7:00 Soften meeting
after - 7:00 to 8:30 Standby for OK to drill T.H.
8:30 to 12:00 Drill T.H. #1 750 SBR
12:00 to 12:30 Lunch N/A
12:30 to 2:30 T.H. hole #2 14' 4.2' @ 12.5
after - 2:30 to 3:30 Decom. 15' of augers & N/A. 10.5
3:30 to 5:30 Drill T.H. #3 150 SBR to 10.6 TD.
5:30 to 6:30 Drill T.H. with 3/8" hole chips 10.6 to surface
after - 6:30 to 6:30 Decom. 10' augers & N/A. 10.5

Checklist

- () ACT/Progress
- () Rental Equip.
- () Company Equip.
- () Instructions Given/Received
- () Tests/Inspection
- () Weather/Effect
- () Delays/Cause
- () Visitors
- () Photos
- () Safety Meetings
- () Complaints
- () Accidents
- () Equip. Breakdown
- () Footage Drilled*
- () Sample Type*
- () Expendables*

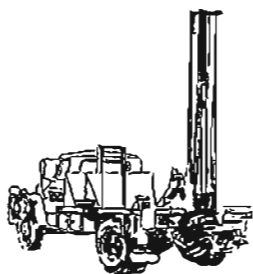
Materials Used: 800 lbs. 3/8" hole chips

Recap:	#1 SBR1	#2 SBR2						Daily Total
Holes Drilled	#1	#2	#3	#4	#5	#6		
Depth	14'	10.6						24.6
Samples Taken	1	3						4
Personnel	Mob Hrs	Travel Hrs	Drill/Work Hrs	Maint. Hrs	DeMob Hrs	Other Hrs	Other Hrs	Extra Work Hrs
R. Robinson			7.5			2.5	2.0	
D. Croner			7.5			2.5	2.0	
Equipment								
Mobil-BG/Trk.								

Driller Randy Robinson

Client/Rep Beishan

* Explained in Narrative



Denali Drilling Daily Work Report

Time Sheet

W.O. # 5850

Date 7-19-09
M T W T H F S S

Shift Dys.

Project Bristol Environmental - ST. Lawrence Isl.

Weather Overcast

Activities & Progress Drill two TH's with 4 1/4" ID H.S. augers with 2.5 ID split spoons

Narrative: 6:30 AM to 7:00 Safety meeting
7:00 to 12:00 drill TH. # ISO SBO's to 11' TD.
backfill 11' to surface with 3/8 bentonite chips
12:00 to 12:30 Lunch / No
other - 12:30 to 2:00 Set up new decon pad closer to work.
decon H.S. augers + Newm. Rd.
2:00 to 5:00 drill T.H. # ISO SBO4 to 14' TD.
backfill 14' to surface with 3/8 bentonite chips
other - 5:00 to 6:00 decon H.S. augers + Newm. Rd.

Checklist

- ☐ ACT/Progress
- ☐ Rental Equip.
- ☐ Company Equip.
- ☒ Instructions Given/Received
- ☒ Tests/Inspection
- ☐ Weather/Effect
- ☐ Delays/Cause
- ☐ Visitors
- ☐ Photos
- ☒ Safety Meetings
- ☐ Complaints
- ☐ Accidents
- ☐ Equip. Breakdown

continuous sampling on hl. # ISO SBO4 to 14'
19 bgs. 3/8 bentonite chips in inventory

Materials Used: 1 ea. 2.5 ID Split spoon sample catcher, 10 ea. 50 lb
bgs. 3/8 bentonite chips

Recap:	# SBO's	#	# SBO's	# SBO4	#	#	Daily: Total	
Holes Drilled	#1	#2	#3	#4	#5	#6		
Depth			11'	14'			25	
Samples Taken			2	5			7	
Personnel	Mob Hrs	Travel Hrs	Drill/Work Hrs	Maint. Hrs	DeMob Hrs	Other* Hrs	Other* Hrs	Extra Work* Hrs
R. Roberson			8.5			2.5		
D. Cramer			8.5			2.5		
Equipment								
Mobil B-61/Trk.								

T. 11 hrs

Driller Randy Roberson

Client/Rep John St

* Explained in Narrative

Borehole Log (Shallow)

Site: MOC AREA	LocID: IS05B01
Project Name: Iwasaki Chumox Pilot	Project Number: 112642.01
Drilling Equipment: Molsil B61 Auger	Date/Time Started: 7/18/09 1000
Drilling Contractor: Denali Drilling	Date/Time Finished: 7/18/09 1330
Driller: R. Roberson	Water Added (gal): None
Drilling Method: HSA	Borehole Diameter (in): 744
Drilling Fluid: None	Logged By: R. Schlosser
	Checked By: -
	Sheet: 1 of 1
	Total Depth (feet): 14
	Depth to Water (feet): ~13.5
	Ambient PID (ppm): 0.12

Depth (feet)	USCS Lithologic Description	USCS Type	Samples					Remarks (sample details, odor, etc.)
			PID (ppm) Spoon	Number	Recovered Length (feet)	Blow Count	PID ppm Sample Time	
0	Surface - disturbed soil w/ gravel & cobbles.							
-	- v tight dense silty gravel w/ dk yel brn 104R3/3-3/4 silt matrix	GM (Fill)						75% gravels to sand, 25% fines
-	occ sand in matrix	4°						headspace 4-5' Fid 5B Fid 6200
6	@ 4° peat, silty, v dk brn - dk brn, sat, w/ ltgy silt layer 63-64	Peat	25	5	5°	2	625	headspace 5-6' strong odor pid - 48 fid 5400
-	@ 7° - sharp contact w/ peat - dk yel brn - brn clay, sat, uniform silty IP	2°	20		8°	3	620	Peat, fine headspace 6-7' fid 42 pid 750x
-	@ 8° ltgy silty clay - clayey silt, sl-mod plastic, mod sat, uniform, shd, IP	ML	140		9°	4	1750	headspace 6-7' fid 29 fid 650
10	@ 10° Frozen clayey silt, ltgy - mgy, sandy IP,	ML Frozen	2.5		10°	5	BK9	BZ - BK9 - strong odor headspace 8° - 9° pid 41 fid 4230
-	@ 11° clayey silt a/a, modk qy, occ org, occ yel brn - rd brn ox, does n't appear sat	ML Frozen			11°	6	BK9	headspace 10° - 11° pid - 58 fid - 4260
-	@ 13° gravelly silt, sat, gravel clast 5-25mm	GM			14°	9	BK9	headspace 11° - 12° strong odor pid - 2.5 fid - 14.5 BZ - BK9
13								headspace 12° - 13° pid - 24 fid - 3700

TD @ 14° Hole back filled w/ medium best. chips to 1'

USCS NAME: Consistency/Density (predominantly fine: very soft (n=0-1), soft (n=2-4), medium stiff (n=5-8), stiff (n=9-15), very stiff (n=16-30), hard (n=31-47) (predominantly coarse: very loose (n=0-4), loose (n=5-10), medium dense (n=11-30), dense (n=31-50), very dense (n=51-64); Moisture (dry, moist, wet); Color; Gradation (relative percentages of soil components-no modifiers); Plasticity/Cohesiveness (predominantly fine: nonplastic (fines=0), slightly plastic (fines=1/4-1/3), low plasticity (fines=1/3-1/2), medium plasticity (fines=1/2-3/4), high plasticity (fines=3/4-1) (predominantly coarse: cohesive, cohesionless); Stratification/Structure (blocky, massive, laminar, etc.) (contacts: sharp, gradational); Bedding (horizontal, inclined); Cementation (none, weak, moderate, strong); Other Descriptive Elements, Geologic Origin

SP = Sample Number; SP = Spoon Driven; SD = Sample Depth; ST = Sample Time; A = Analysis

BZ = Breathing Zone; BG = Background; BH = Borehole; CB = Cuttings Bin

Borehole Log (Shallow)

Site: MOCC AREA	LocID: IC05B02
Project Name: Insitu Chem Ox Pilot	Project Number: 112642.01
Drilling Equipment: Mobil B61	Date/Time Started: 7/18/09 1530
Drilling Contractor: Denali Drilling	Date/Time Finished: 7/18/09 1700
Driller: R. Roberson	Water Added (gal): None
Drilling Method: HSA	Borehole Diameter (in): 7 1/2
Drilling Fluid: None	Logged By: R. Schlosser
	Checked By: -
	Total Depth (feet): 10'
	Depth to Water (feet): -
	Ambient PID (ppm): 0.0

Depth (feet)	USCS Lithologic Description	USCS Type	Samples					FID Sample Time	Remarks (sample details, odor, etc.)
			PID (ppm)	Spoon	Number	Recovered Length (feet)	Blow Count		
0	Surface, bare soil.								
	Penduller, gravelly silt								
	- Silty gravel ends @ 4'								
		GM							
		ML							
		Fill							
	@ 4' - 5' silty gravel 2/3,								
	native? fill	2.2							
5	@ 5' Peat, dk brn, silty								
	IP, sft some odor, sdy	50							
	IP, grading to SP @ 5.5'								
	5.8' back to peat to 7'	7'							
		NR							
	lost 7' - 9', driller dropped								
	inner bit and fell from 7' - 9'	9'							
10	9' - 10' silt & peat dk								
	brn, sl shear on sample								
	when extracted.								
	TD @ 10'								
	Hole back filled w/ bent,								
	cups to 1'								
15									

USCS NAME: Consistency/Density (predominantly fine: very soft (n=0-1), soft (n=2-4), medium stiff (n=5-8), stiff (n=9-15), very stiff (n=16-30), hard (n=31+)) / (predominantly coarse: very loose (n=0-4), loose (n=5-10), medium dense (n=11-30), dense (n=31-60), very dense (n=61+)); Moisture (dry, moist, wet); Color; Gradation (relative percentages of soil components-no modifiers); Plasticity/Cohesiveness (predominantly fine: nonplastic (bread-crust), slightly plastic (n=1-4-1/2), low plasticity (n=1/8-1/16), medium plasticity (n=1/3-2), high plasticity (n=1/8-1/4)) / (predominantly coarse: cohesive, cohesionless); Stratification/Structure (blocky, massive, lensed, etc.); Contacts: sharp, gradational; Bedding: horizontal, inclined; Cementation (none, weak, moderate, strong); Other Descriptive Elements; Geologic Origin

SP = Sample Number; SP = Spoon Driven; SD = Sample Depth; ST = Sample Time; A = Analysis

BZ = Breaching Zone; BG = Background; BH = Borehole; CB = Cuttings Bin

CLIENT Bristol PROJECT TCOMX, NECAPE HOLE NO. TCOMX-SP04 SHEET OF

BORING METHOD HSA-Mobil B61 DRILLER/COMPANY R. Roberson/Denali

DATE 7/17/09 TIME 1500 TOTAL DEPTH 14.5 ENGINEER/GEOLOGIST R.M. Schlosser

CONSISTENCY/DENSITY/HARDNESS	GEOLOGIC STRUCTURE					DEPTH SCALE	LITHOLOGY			ROCK OR SOIL DESCRIPTION	SAMPLE DEPTH	SAMPLE TYPE
	% GRAVEL	% SAND	% FINES	PLASTICITY	MOISTURE		STRUCTURE TYPE - NFILL	GRAPHIC LITHOLOGY LOG	USCS CODE			
						0				heads space samples depth: Fidppk Pid ppm		
						1				4°-5° 1050 240		
						2				5°-6° 1530 200		
						3				6°-8° 2150 850		
						4				10°-12° 810 370		
						5				12°-14° 610 150		
						6						
						7						
						8						
						9						
						10						
						11						
						12						
						13						
						14						
						15						
						16						

Auger to 4' through fill, hit SP sand & gravel from pipeline trench, running east to west.

pid 67 fid 260 spoon
@ 4' clayey silt dk brn, occ gravel, moist, w/ strong odor - occ sp4, smeaction
@ 5' Peat med-dk brn, uniform, v strong odor, recd, med dense for peat.
spoon 6-8
only recovered 1°
Peat to 6.2' contact w/ gravelly silt dk yellow 1042 3/3-3/4 strong odor, gravels 10-40mm
C 10.5° pushed cobbles down, lost 7°-8°
auger to catch up to 8' - sp 8'-10' damp @ 10° during augering

pid 3 fid 20 ppm
11-12' rgy brn - med gvy clayey silt - silty clay
11-12' silty gravel to gravel
silt, partially frozen, silt;
silt pushed to 12.5°
@ 13.1 wet, gravelly silty clay
dk gvy, stiff, med dense, sandy IP
TD @ 14.5
water in auger @ 9.25' BGL after penetration of gravel @ 13.1
Plug entire boring w/ medium bentonite chips to 1'

CLIENT BNSF PROJECT ILCOMC. NECA HOLE NO. ICL 583 SHEET OF
 BORING METHOD HSA - Mobil B61 DRILLER/COMPANY Daniel Dalg / R Robertson
 DATE 7/19/09 TIME 1000 TOTAL DEPTH 11' ENGINEER/GEOLOGIST R.M. Schlosser

CONSISTENCY/DENSITY/HARDNESS	GEOLOGIC STRUCTURE					DEPTH SCALE	LITHOLOGY			ROCK OR SOIL DESCRIPTION	SAMPLE DEPTH	Blowcount's SAMPLE-TYPE
	% GRAVEL	% SAND	% FINES	PLASTICITY	MOISTURE		STRUCTURE TYPE - NFILL	GRAPHIC LITHOLOGY LOG	USCS CODE			
						0						
						1						
Soft	65	tr	35	M	M	2		GM	FI	Auger to 5' - handdriller run through (FILL) GM gravelly silt @ 3.5', Appears @ 3.5 to be OL, org silt vdk brn, sft, sl-mod plastic w/ some clay cut, strong odor, take grab sample or cuttings from 5'-7',		
						3						
						4						
Soft	tr	-	100	M	S	5		OL		Spilt spoon 2' - 7'-9'		
						6				run spoon in, driller reports he had to push 13' to get to btm, pull sampler (only shoe full) clean & run to btm for sample	7'	
						7						
						8				7'-9' clayey silt m-dkgy, frozen - partial frozen w/ visible ice crystals. PID bkg, FID bkg, no odor,		3
Soft	tr	tr	100	S	S	9		ML		9-11 drive spoon	9'	3
						10		ML		little recovery. (-1) of sandy gravelly silt, mdgy-saturated, frozen pid = bkg FID = bkg.		2
Soft	10	10	80	S	S	11		ML		TO hole @ 11'.		2
										Lost 10'-11'	11'	2
										Plug entire boring w/ medium bentonite chips to 1'		
										headspace samples		
										depth FID ppm PID ppm		
										5'-7' 1305 258		
										7'-9' 520 130		
										9'-11' 315 150		



07.19.2009 13:39



07.19.2009 17:35

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 026
Date or Time Period: Monday July 20th, 2009
Client: USACE, Alaska District

Weather Conditions: Rain and clouds in the morning, becoming mostly cloudy in the afternoon.

Temp Low: 45°F

Temp High: 52°F

Winds were relatively calm 5 – 15 mph from the Northeast.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Used oil	0	1

Note:

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
None			

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Wear your seatbelts in vehicles.

There will be a new dumping area, so traffic patterns will change. Be aware of changes

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. No drums were transferred to the HWAP from the landfill. Some areas showing stained soil were excavated/removed. The northeast anomaly was fully investigated. BERS noticed an area with obvious metal and drums that was not shown on the metallic anomaly map. This area was excavated and no liquid-containing drums were discovered. The landfill excavation crew began investigation of the large northwest metallic anomaly area. One lighting ballast was found during excavation of the northwest anomaly. Another containment pond was created at the HWAP. Drums were cut and cleaned. A total of 24 loads of material was moved and stockpiled at the landfill today. AECOM installed one soil boring and a temporary monitoring well in the ISCO area. The Volvo loader broke a hydraulic line this afternoon. Approximately 15-20 gallons of fluid leaked onto the ground. The spill will be reported as required by ADEC. 26 people were on-site this day. BERS personnel ended shift at 1830 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	12.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.5	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day

			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	16	192.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randal Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O'Neal	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

QAR, Valerie Palmer, instructed BERS CQCSM, Russell James, that the backfilled area south and east of Cargo Beach Road was not completely covering all of the debris. She could see a couple of drums that were slightly exposed near the base of the slope on the northeast side of the backfilled area. She recommended putting more fill on top to remedy the exposure. Her instructions were passed on to the foreman, Maze Thompson.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk (DTO 552)	17	278	295
Volvo A40D Rock Trucks – S. McBride (DTO 553	7	221	228
Monitor Wells Drilled	1	0	1
Injection Wells Drilled			
Soil Borings Installed	1	4	5
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	48	48
Soil Removed	15 tons	0	15 tons (Estimate)
Used Oil Recovered	Not Measured	300 Gallons	300 gallons
Oily Sludge Recovered	100 gallons	0	100 gallons
PCB Lighting Ballasts Recovered	1	0	1
Batteries Recovered	2	4	6

Note:

Remarks (include any visitors to project and miscellaneous remarks pertinent to work.)

The monitoring well installed by AECOM is only temporary.

Comments: Photo 1, looking west, shows drum protruding from the ground in an area not indicated on the metallic anomaly map. Photo 2, looking north, shows the northwest anomaly during excavation.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/21/2009
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

There are still drum carcasses sticking up through the cover in some areas along the southeast edge of the landfill. All landfill debris should be covered with 24 inches of fill when the project is complete, so additional material will be needed in this area.

The ISCO team had a teleconference today to discuss a path forward. Some soil and water samples will be sent to a lab this week; TOD results should be available mid-week. All results will hopefully be available by Friday, when another teleconference is tentatively planned.

During the same teleconference the handling of additional drums from the landfill was also discussed. USACE and Bristol PMs agreed that draining, washing, and then returning the drums to the landfill was acceptable for any drums beyond the original 50 covered by the contract.

Observed crew mopping up after the hydraulic oil spill at the borrow area. Three 55-gallon drums were filled with oily soil. Additional soil was placed on poly liner, surrounded with absorbent boom and then covered; the final containerization method is yet to be determined. This soil should not be included with the tonnage for the contaminated soil from the landfill.


QAR Signature

21 July 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-20-09 Conducted By: Marc Thompson

- Subjects:
- 1) Seat belt use is required - use them
 - 2) Watch for 4 wheeler Traffic on roads
 - 3) _____
 - 4) _____
 - 5) _____
 - 6) _____

Printed Name	Signature	Company
Michael Gallegos		BERS
George Mark		BERO
Eric Barrhill		
Shane Clark		Emerald A.K.
Russell Jones		BERS
Scott Pittman		AECON
Randy Robertson		Donali Drilling
David McCram		Donali Drilling
MARK HENSTON		RECON
BOB SCHULTZ		BERS
Robert McKern		Global
William Parris		BERS
SEAN M. McBrine		BERS
Michael Telle		BERS
Johnny Willis		BERS
Dan Paul		BERS
Jack Wallace		BERS
JACK WILLIS		BERS
Douglas Parris		BERS
EUGENE FOLK		BERS
Bruce Schreuer		BERS
Carl D. Colman		BERS
RANDY BARK		BERS

BORING LOG

CLIENT PRISTOL PROJECT In Situ Chem. Ox Dist. NISCAPE HOLE NO. ICC MW01 SHEET 1 OF 1

BORING METHOD HSA - Mobil BCI DRILLER/COMPANY R Robinson/Daniel Dalg

DATE 7/20/09 TIME 1500 TOTAL DEPTH 17.5 ENGINEER/GEOLOGIST R.M. Schlosser

CONSISTENCY/DENSITY/HARDNESS	GEOLOGIC STRUCTURE					DEPTH SCALE	LITHOLOGY			ROCK OR SOIL DESCRIPTION	SAMPLE DEPTH	SPLW COUNTS
	% GRAVEL	% SAND	% FINES	PLASTICITY	MOISTURE		EMERGENCY TYPE - WELL	GRAPHIC LITHOLOGY LOG	USCS CODE			
						1			SP	Augerto 4 th sp sand mcs		
						2			GM	gr w/ gravels 20-70 mm, occ		
						3			FILL	large cobbles, dry, med compact,		
						4				silty IP.		
						5			ML	Sample 4-5 olive brn fid-4255, pid 180	4 th	3
SFT	0	0	100	L	dry	6				med brn silt, uniform, tight	SP	2
SFT	0	tr	100	-	dry	7			PEAT	med dry, occ clay, occ sand, roots	Rec	4
						8				dk brn, fine, silty, strong odor,	6 th	5
						9				uniform, dry. Sample 5-6,	SP	7
						10				occ sand	Rec	6
SFT	0	tr	100	L	dry	11			ML	6-8 fid 500 pid 180 - contact, moist	2 nd	8
SFT	0	tr	100	L	dry	12			Feet	Silt med brn - med light gy, clayey	9 th	9
SFT	0	tr	100	L	dry	13				ID, scat org throughout, dry.		2
						14				sl moist, tight, strong odor, occ peat	Rec	5
						15				8-10 spec. pid 160, fid 400	2 nd	4
						16			SM	Clayey silt. olive gy - med ky,	10 th	5
						17			ML	occ - v clayey loc, med plasticity,		6
						18				occ 5-30 mm gravel cks, med,	11 th	8
						19				occ silty, moist.	HR	3
						20				10-12 very poor recovery (25") clayey	12 th	11
						21				silt a/2, occ pebbles, sl saturated -		7
						22				moist, sl plastic, olive gy a/a - occ org	Rec	2
SFT - med stiff	15	tr	85	M	W	23			ML	10-12 pid 160 fid 520 - probably cap fringe	HR	2
						24			GM	pid 12-14 65 fid 65 @ 13 th	14 th	11
						25				→ silty gravel, pushed cobbles or gravel		8
						26				beginning @ 13 th silty w/ 5-30 mm	Rec	6
						27				avg gravels w/ scat pebbles and	2 nd	12
						28				sand. wet @ ~13 th , saturated		10
						29				- Set 0.006 sieve @ 17 th - 12 th	16 th	
						30				Sample @ 17 th		
						31				Sand 10/20 17 th - 10 th - 3 bags		
						32				Native surged to 14 th 10/20 sand to		
						33				Chips to 4 th		



07.20.2009 12:45



07.20.2009 12:53

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 027
Date or Time Period: Tuesday July 21st, 2009
Client: USACE, Alaska District

Weather Conditions: Rain and clouds in the morning, clearing in the afternoon.

Temp Low: 45°F

Temp High: 52°F

Winds were relatively calm 5 – 15 mph from the Northeast.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Used oil	0	1

Note:

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil	AK102	4	4
DRO – Water	AK102	1	1

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Wear your seatbelts in vehicles.

There will be a new dumping area, so traffic patterns will change. Be aware of changes

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. Two drums were removed from the landfill. Two lighting ballasts and five lead-acid batteries were discovered as well. Some of the batteries were broken and in poor condition. Oil was transferred and more drums were cleaned at the HWAP. A total of 38 loads of material was moved and stockpiled at the landfill today. AECOM installed one soil boring and a temporary monitoring well in the ISCO area. The hydraulic fluid leak was reported to ADEC at approximately 9:30 am. Three people left the site today on a Bering Air flight. 26 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	12.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk	1	12.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	16	192.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randal Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O’Neal	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

QAR told CQCSM, Rusell James, and Environmental Sampler, Eric Barnhill, that any drums recovered from the landfill, beyond 50, that contain no recoverable liquid can have an absorbent material such as kitty litter or oil dry placed inside the drum and the drum can be reintroduced into the landfill.

QAR, Valerie Palmer, told Shane O'Neill that the pillows from the water scrubber should be contained separately from the other oily debris associated with the drum cleaning and disposed as Bristol's waste. BERS will contact Molly Welker for further information.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks-D. Pauk/Gallegos (DTO 552)	14	295	309
Volvo A40D Rock Trucks – S. McBride (DTO 553	24	228	252
Monitor Wells Drilled	1	1	2
Injection Wells Drilled			
Soil Borings Installed	1	5	6
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	2	48	50
Soil Removed	15 tons	0	15 tons (Estimate)
Used Oil Recovered	50 gallons	300 Gallons	350 gallons
Oily Sludge Recovered	50 gallons	100 gallons	150 gallons
PCB Lighting Ballasts Discovered	2	1	3
Batteries Recovered	Unknown	6	> 6

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

50 Drums have been removed from the landfill. The USACE has been informed that we will be removing in excess of 50 drums. USACE and BERS decided that drums recovered from the landfill containing thick sludge and no recoverable product will have kitty litter, or some other absorbent material such as oil dry, placed in the drum. The drum will then be put back into the landfill.

Four soil samples were shipped to the laboratory on a Bering Air flight.

ADEC was contacted today regarding the hydraulic fluid spill that occurred on 7/20/2009. Peggy Wandell was the contact.

Dan Pauk, Randy Roberson, and David Cramer left the site today.

Comments: Photo 1, looking south, shows some of the debris that was pulled from the landfill during the excavation of the northwest anomaly on 7/21/2009. Photo 2, looking southwest, shows the northwest anomaly during excavation.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/27/2009
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Observed construction of a second containment cell for drum wash water. Water from the first cell was pumped through a second scrubber and released into the newest cell. Water is very turbid and may not meet the wastewater discharge permit turbidity requirements.

Noted that the filters from the scrubber unit were changed and used filters were placed in 55 gallon drums. Further discussion is necessary as to if these filters qualify as a pay quantity.

Discussed possible PCB-containing light ballast with COR. Ballasts will be set aside until landfill exploration is complete and a final quantity is known. At that time a contracting action will be done to cover disposal costs.

One of the rock truck drivers was sent off-island today due to having a suspended license.


QAR Signature

22 July 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

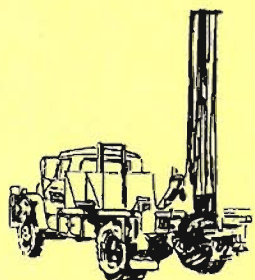
In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-21-09

Conducted By: Maze Thompson

- Subjects:
- 1) Safe movement and awareness around Equipment
 - 2) _____
 - 3) Monotony - don't lose concentration
 - 4) _____
 - 5) _____
 - 6) _____

Printed Name	Signature	Company
George Mack		BERS
Michael Gilligan		BERS
Shane L. L. L.		Donald A. L.
Bob Schloesser		ASC
Johnny Willis		BERS
Michael Boile		BERS
Jack Willis		Bristol
EUGENE TODDIE		BERS
Allen Daniels		BERS
Russell James		BERS
Eric Brockhill		BERS
Darwin Byers		BERS
Mark Johnson		ASC
Seth Johnson		ASC
Carl D. Caligan		BERS
Dan R. Cameron		Dan R. Cameron
Randy Johnson		Dan R. Cameron
Dan R. Cameron		BERS
Valerie Palmer		WACE
Jessica Chantrel		FWX
Sage NP McBride		BERS
Bruce Schnauer		BERS
Robert Nelson		Okech
Larry Black		BERS



Denali Drilling Daily Work Report Time Sheet

W.O. # 8850

Date 7-21-09
M T W T H F S S

Shift Dys

Project Bristol Environmental - ST. Lawrence Isl.

Weather Nice dy.

Activities & Progress Decon, Drill Mon. well to 9' no sampling
ISO 51306

Narrative: ^{other} 6:30 AM to 7:00 Safety meeting
7:00 to 8:00 decon augers from 7-20-09 + rds
8:00 to 12:00 drill + set mon. well #5B06 @ 9'
pre-pak 5' x 2" pvc riser, silica sand 10/20 to 3' 3/8
bentonite chips to surface ~~Hammer~~
12:00 to 12:30 ~~decon~~ Lunch / NC.
12:30 to 2:00 decon
2:00 to 10:00 pm Travel ~~to~~ ST. Lawrence Isl
to Home. to Anch / standby Home flight @ 8:55 pm

- Checklist
- () ACT/Progress
 - () Rental Equip.
 - () Company Equip.
 - (x) Instructions Given/Received
 - () Tests/Inspection
 - () Weather/Effect
 - () Delays/Cause
 - () Visitors
 - () Photos
 - (x) Safety Meetings
 - () Complaints
 - () Accidents
 - () Equip/Breakdown
 - (x) Footage Drilled*
 - () Sample Type*
 - (x) Expendables*

Materials Used: 1 ea. 5" x 2" pre pak .006 slot screen, 5' x 2" pvc riser, 4 bgs 10/20 sand 50/lbs
1 ea. 65 x 1" cate line for hammer
1 ea. 50/lbs 3/8 bentonite chips. 1 ea. bottom thread cap, 1 ea. 2" Top Lock (cap)

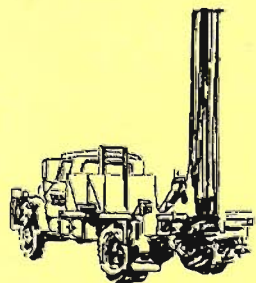
Recap:	#1	#2	#3	#4	#5	#6	Daily: Total	
Holes Drilled						#5B06		
Depth						9'	9'	
Samples Taken						no-sampling	0	
Personnel	Mob Hrs	Travel Hrs	Drill/Work Hrs	Maint. Hrs	DeMob Hrs	Other* Hrs	Other* Hrs	Extra Work* Hrs
R. Roberson		8.0	5.0		1.5	.50		
D. Camer		8.0	5.0		1.5	.50		
Equipment								
Mohil B-6/TRK								
								1.15 hrs

Driller Randy Roberson Client/Rep R. Hume

* Explained in Narrative

Denali Drilling Daily Work Report

Time Sheet



W.O. # 8850

Date 7-20-09
MTWTHFS

Shift Dys.

Project Bristol Environmental - ST. Lawrence Isl.

Weather Overcast - drizzle

Activities & Progress Drill Monitoring well + set with 2" pvc sch. 40
#

Narrative: other - 6:30 am to 7:00 Safety meeting
other - 7:00 to 3:00 Standby for what hl to drill. 1/2 Lunch
3:00 to 6:30 drill Mon well, continuous sampling
6:30 to 7:00 Dinner / NC
7:00 to 9:30 pm Install well pull augers, secure site

Sample with 2.5 ID Split spoons

- Checklist
- () ACT/Progress
 - () Rental Equip.
 - () Company Equip.
 - () Instructions Given/Received
 - () Tests/Inspection
 - () Weather/Effect
 - () Delays/Cause
 - () Visitors
 - () Photos
 - () Safety Meetings
 - () Complaints
 - () Accidents
 - () Equip. Breakdown
 - () Footage Drilled*
 - () Sample Type*
 - () Expendables*

Materials Used: 1 ea. 5' x 2" pvc, .006 slot screen, 2 ea. 10' x 2" pvc riser, 1 ea. 2" Top lock cap
1 ea. 2.5 ID Sampler catcher, 5 bgs 3/8 bentonite
chips, 3 bgs. 10/20 silica sand. 1 ea. bottom 2" pvc threaded cap

Recap:	#1	#2	#3	#4	#5	#6	Daily: Total	
Holes Drilled								
Depth					17.5		17.5	
Samples Taken					6		6	
Personnel	Mob Hrs	Travel Hrs	Drill/Work Hrs	Maint. Hrs	DeMob Hrs	Other* Hrs	Other* Hrs	Extra Work* Hrs
R. Roberson			6.0			7.5	.50	
D. Cramer			6.0			7.5	.50	
Equipment								
Mobil B-61/Trk.								
								T. 14 hrs

Driller Randy Roberson

Client/Rep R. H. SL

* Explained in Narrative

Drill Rig Inspection Checklist

Date 7/20/09	Equipment Model/Type: Mobil B-61/Trk
Project Name: Bristol Enviro.	Serial or License # TD-42 5675 BR-AK
Project # ST-Lawrence Isl.	Location Owner/Operator: ST-Lawrence Isl.
Project Manager: Chuck Croley	Inspector: Randy Roberson

Place a (✓) in the "Yes" column if the requirement has been met. If a "No" is encountered, equipment must be removed from operation until the deficiency has been corrected. Describe deficiencies on page two of this form. Use the Comment column to note any additional information needed to certify the equipment. If a checklist item is found to be "Not Applicable," check "NA" and provide a comment in the appropriate box.

Item Name	Requirement	Yes	No	NA	Comment
Hydraulic systems controls and levers	No leak fittings or connections. Levers are in good operating condition. Fluid levels are full.	X			
Fuel, oil, water, and coolant lines	No leaks.	X			Yellow duck pond small leak Trk motor
Hoses	No leaks in hoses or connections. No signs of excessive wear, kinked or bent hoses.	X			
Gauges	Operational and visible to operator.	X			
Emergency kill switch and life line	Operational and accessible to operator.	X			operator side
Shear pins	In place.	X			
Drive chains	No signs of excessive wear, broken or defective links.	X			
Parking brakes	Set and operational.	X			use wheel chocks
Outriggers	No leaks. Set on pads (as necessary to avoid damage).	X			
Windshield Wipers	Operational.	X			
Lights (head, tail and running lights)	Operational and without cracked lenses.	X			
Back-up alarm	Operational, spotter used.	X			use spotter/sound horn 3 times
Cables and ropes	No fraying, birdnesting, flattening, stretching. Must be braided or properly clamped at connections.	X			
Pulleys, drums and spools	No excessive wear or cracking.	X			
Derrick/Mast	Locked in position. Frame is not cracked or bent.	X			

Drill Rig Inspection Checklist

Item Name	Requirement	Yes	No	NA	Comment
Holsts	Properly spooled cable, rated to lift loads.	X			
Safety equipment	Safety harness, fire extinguisher, flares, safety reflectors, first aid kit, grounding wire for fueling, and spill response equipment (for fueling and repairs).	X			
Guards	Power take-offs (PTOs) and all rotating parts designed with guards. Guards must have warning labels.	X			
Miscellaneous (as applicable)	Diverter systems; auger and head seals; cyclones; grout plant guards; etc. (list): • • •	X			
DEFICIENCIES (Explain all negative response and list corrective actions; all deficiencies must be corrected before the rig is entered into service):					
1.					
2.					
3.					
4.					
5.					
Other Repairs, Routine Maintenance and/or Comments:					

Inspection Conducted and Certified by:

	Print Name:	Signature	Date:
Owner / Operator	Randy Robinson	Randy Robinson	7-20-09

Checklist Reviewed by:

	Print Name:	Signature	Date:
Earth Tech PM or SSO	Mark Mason	Mark Mason	7-20-09

Drill Rig Inspection Checklist

Date 7-21-09	Equipment Model/Type: Mobil B-61/Trk.
Project Name: Bristol Enviro.	Serial or License # TD42 5675BR-AK
Project # ST. Lawrence Isl.	Location Owner/Operator: ST. Lawrence Isl.
Project Manager: Chuck Croley	Inspector: Randy Roberson

Place a (✓) in the "Yes" column if the requirement has been met. If a "No" is encountered, equipment must be removed from operation until the deficiency has been corrected. Describe deficiencies on page two of this form. Use the Comment column to note any additional information needed to certify the equipment. If a checklist item is found to be "Not Applicable," check "NA" and provide a comment in the appropriate box.

Item Name	Requirement	Yes	No	NA	Comment
Hydraulic systems controls and levers	No leak fittings or connections. Levers are in good operating condition. Fluid levels are full.	X			
Fuel, oil, water, and coolant lines	No leaks.	X			yellow duck pond small leak to k motor
Hoses	No leaks in hoses or connections. No signs of excessive wear, kinked or bent hoses.	X			
Gauges	Operational and visible to operator.	X			
Emergency kill switch and life line	Operational and accessible to operator.	X			operators side
Shear pins	In place.	X			
Drive chains	No signs of excessive wear, broken or defective links.	X			
Parking brakes	Set and operational.	X			use wheel chocks
Outriggers	No leaks. Set on pads (as necessary to avoid damage).	X			
Windshield Wipers	Operational.	X			
Lights (head, tail and running lights)	Operational and without cracked lenses.	X			
Back-up alarm	Operational, spotter used.	X			use spotter/ sound horn 3 times
Cables and ropes	No fraying, birdnesting, flattening, stretching. Must be braided or properly clamped at connections.	X			
Pulleys, drums and spools	No excessive wear or cracking.	X			
Derrick/Mast	Locked in position. Frame is not cracked or bent.	X			

Drill Rig Inspection Checklist

Item Name	Requirement	Yes	No	NA	Comment
Hoists	Properly spooled cable, rated to lift loads.	X			
Safety equipment	Safety harness, fire extinguisher, flares, safety reflectors, first aid kit, grounding wire for fueling, and spill response equipment (for fueling and repairs).	X			
Guards	Power take-offs (PTOs) and all rotating parts designed with guards. Guards must have warning labels.	X			
Miscellaneous (as applicable)	Diverter systems; auger and head seals; cyclones; grout plant guards; etc. (list): • • •	X			
DEFICIENCIES (Explain all negative response and list corrective actions; all deficiencies must be corrected before the rig is entered into service):					
1. 2. 3. 4. 5.					
Other Repairs, Routine Maintenance and/or Comments:					

Inspection Conducted and Certified by:

	Print Name:	Signature	Date:
Owner / Operator	Randy Roberson	Randy Roberson	7-21-09

Checklist Reviewed by:

	Print Name:	Signature	Date:
Earth Tech PM or SSO			

BORING LOG

CLIENT PRISTOL PROJECT In Situ Chem Ox HOLE NO. ICC RAW01 SHEET 1 OF 1
 BORING METHOD HSA - Mobil BGI DRILLER/COMPANY R. Roberson/Denali Drilling
 DATE 7/20/09 TIME 1500 TOTAL DEPTH 17.5 ENGINEER/GEOLOGIST R.M. Schlosser

CONSISTENCY/DENSITY/HARDNESS	GEOLOGIC STRUCTURE					DEPTH SCALE	LITHOLOGY			ROCK OR SOIL DESCRIPTION	SAMPLE DEPTH	BLOW COUNTS
	% GRAVEL	% SAND	% FINES	PLASTICITY	MOISTURE		STRUCTURE TYPE - NEILL	GRAPHIC LITHOLOGY LOG	USCS CODE			
										12.2 5 17 17.5 10 1/2		
						1			SP GM Fid	Auger to 4° SP sand m-cs gr w/ gravels 20-70 mm, occ large cobbles, dry, mod compact, silty IP.		
						2						
						3						
						4						
SFT	0	0	100	L	dry	5			ML	Sample 5-5 olive brn fid 4250, pd 180 med brn silt, uniform, tight dry, occ clay, occ sand, roots	SP Rec 2'	3 2 4
SFT	0	tr	100	-	dry	6			PEAT	dk brn, fine, silty, strong odor, uniform, dry. Sample 5-6 occ sand	6"	5
						7				6-8 fid 500 pd 180 - contact, moist	SP Rec 2'	7 6 8
SFT SFT	0	tr	100	L	dn	8			ML PEAT	Silt med brn - med light gy, clayey ID, scat org throughout, dry. sl moist, tight, strong odor, occ peat 8-10 spec. pd 160, fid 400	8"	9
						9					Rec 2'	2 5 4
SFT	0-5 tr	100	L-M	M		10			SM ML	Clayey silt. olive gy - med ky, occ - v clayey loc, mod plasticity, occ 5-30mm gravel clasts, ang, occ silty, moist.	10"	5
						11				10-12 Very poor recovery (28") clayey silt a/a, occ pebbles, sl saturated - moist, sl plastic, olive gy a/a, occ org	AR 12"	6 8 11
SFT - mod stiff	15	tr	85	M	M	13			ML GM	10-12 pd 160 fid 520 - probably cap fringe pd 12-14 65 fid 65 @ 13.1 @ 12.4-13.2 → silty gravel, pushed cobble or gravel beginning @ 13.2 - silty w/ 5-30mm ang gravels, w/ scat pebble and sand. wet @ ~13.2, saturated	AR 14"	7 8 9 11
dense	65	25	10	M	W	14				- Set 0.006 slotted screen @ 17.0 - 12.0 Swamp @ 17.5 Sand 10/20 17.5 - 10.0 - 3 bags Native surged to 14.0 to 20.0 Sand to Chps to 4.0 - 5 bags.	Rec 2'	6 12 10
						15						
						16						
						17						

WELL COMPLETION RECORD

JOB NO.: 112642.01 WELL NO. ICOMW01 HYDROGEOLOGIST: R.M. Schlosser
 CLIENT: BRISTOL DRILLER: R. ROBERSON
 WELL LOCATION: Chemex Pilot Area DATE/TIME: 7/20/09 1800

DETAILS OF CONSTRUCTION

Date Completed 7/20/09
 Borehole Diameter (in.) 7 3/4
 Type and Size of Casing (in.) 2" PVC
 Type and Size of Screen (in.) PVC .5' .006 slot
 Screen Perforation Diameter (in.) .006 5'
 Screen Length (ft.) 10'
 Centralizer Depths (ft.) -
 Completion Technique

1. Type of Filter Pack and Placement Method

10/20 Silica Sand poured

2. Type of Bentonite and Placement Method

3/8" Chips - poured

3. Type of Grout Mixture and Placement Method

None

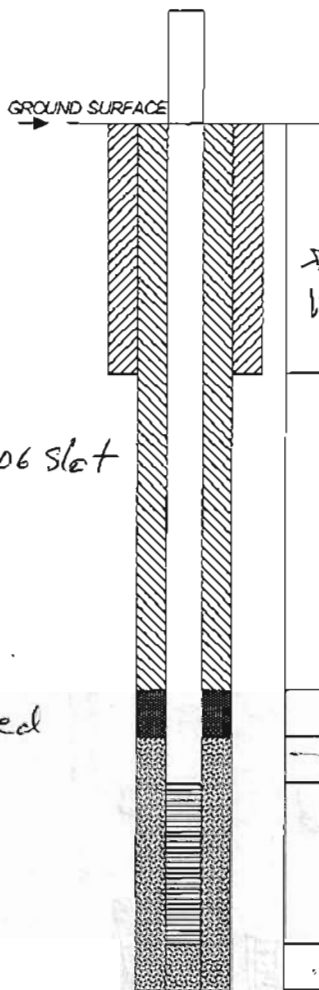
Description of Potential Problems With Well:

None

Development Technique

Surge & Pump

* Temporary well
 no surface completion



Well Head Elevation UNK
 Ground Surface Elev. UNK
 Well Head Completion Method NONE - TEMPORARY WELL
 Drilling Method/Rig Type HSA / Mobil B-61

Surface Casing: Type NONE
 Diameter 2"
 Length -

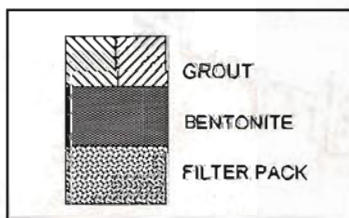
MATERIALS

Cement (sks.) NONE
 Filter Pack Material (ft.³) 3 ft.³
 Casing Material (ft.) 12
 Bentonite (ft.³) 4 ft.³
 Top of Bentonite Seal 4' ft.
 Top of Filter Pack 10' ft.
 Top of Screen 12' ft.

17'
5' 17' Sump

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

Bottom of Screen 17' ft.
 Bottom of Hole 17' ft.



BORING LOG

CLIENT Bristol PROJECT INSITU CHEMOK HOLE NO. ZCOMW02 SHEET 1 OF 1
 BORING METHOD HSA - Mobil B61 DRILLER/COMPANY P. Robinson / Denali Drilling
 DATE 7/2/09 TIME 0800 TOTAL DEPTH 9' ENGINEER/GEOLOGIST P.M. Schlosser

CONSISTENCY/DENSITY/ HARDNESS	GEOLOGIC STRUCTURE					DEPTH SCALE	LITHOLOGY			ROCK OR SOIL DESCRIPTION	SAMPLE DEPTH	SAMPLE TYPE
	% GRAVEL	% SAND	% FINES	PLASTICITY	MOISTURE		STRUCTURE TYPE - INFILL	GRAPHIC LITHOLOGY LOG	USCS CODE			
						1				Auger to 9' to set temporary well		
						2						
						3						
						4						
						5						
						6						
						7						
						8						
						9						
										TD @ 9'. Set 2" well Sump @ 9' .006 slot screen 2" 4'-8.5' (Prepack) 10/20 Silica sand. 9'-3' 3/8" chips (bentonite to 1') 3'-1'		

WELL COMPLETION RECORD

JOB NO.: 112642-01 WELL NO. ICOMW02 HYDROGEOLOGIST: R.M. Schlosser
 CLIENT: Bristol DRILLER: R. Roberson
 WELL LOCATION: Chemox Pilot Area DATE/TIME: 7/24/09 0900

* Temporary well

DETAILS OF CONSTRUCTION

Date Completed 7/21/09
 Borehole Diameter (in.) 7 3/4
 Type and Size of Casing (in.) 2" PVC
 Type and Size of Screen (in.) .006 Slot PVC
 Screen Perforation Diameter (in.) 2"
 Screen Length (ft.) 5' *
 Centralizer Depths (ft.) N/A
 Completion Technique

1. Type of Filter Pack and Placement Method

10/20 Silica Sand / Poured.

2. Type of Bentonite and Placement Method

3/8" Bentonite Pellets.

3. Type of Grout Mixture and Placement Method

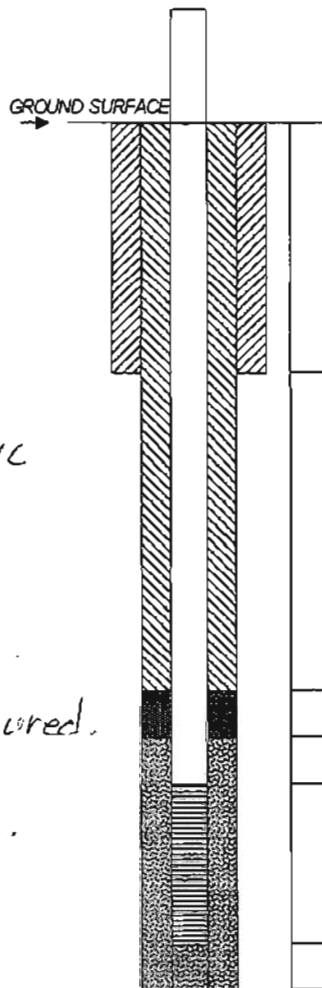
None

Description of Potential Problems With Well:

Area - Completed across
Peat zone will be
difficult to develop.

Development Technique

* Prepack screen
 w/ 10/20 Silica Sand



Well Head Elevation UNK
 Ground Surface Elev. UNK
 Well Head Completion Method None - TEMPORARY WELL
 Drilling Method/Rig Type ASA/Mobil B61

Surface Casing: Type None
 Diameter _____
 Length _____

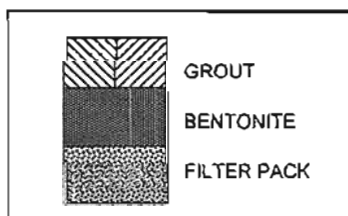
MATERIALS

Cement (sks.) None
 Filter Pack Material (ft.³) 5 ft³
 Casing Material (ft.) 4
 Bentonite (ft.³) 2 ft³

Top of Bentonite Seal 1 ft
 Top of Filter Pack 3 ft
 Top of Screen 4 ft

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

Bottom of Screen 8 ft
 Bottom of Hole 9 ft





07.21.2009 14:45



07.21.2009 17:19

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 028
Date or Time Period: Wednesday July 22nd 2009
Client: USACE, Alaska District

Weather Conditions: Foggy in the morning, Mostly cloudy in the afternoon. Cool.

Temp Low: 42°F

Temp High: 47°F

Winds were relatively calm 5 – 10 mph from the North.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Used oil	0	1

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil	AK102	0	4
DRO – Water	AK102	2	3

Note: The samples collected by AECOM are being used to verify or contradict field screening results. It is believed that peat in the soil is affecting their field screening instrument.

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Keep lights on in the foggy conditions. Make visibility a priority.
 Keep Tyvek on in the HWAP and take it off when you are not in the containment areas.
 Don't get distracted by the mosquitoes.
 Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. One drum was removed from the landfill. More lighting ballasts and lead-acid batteries were discovered as well. Oil transfer and drum cleaning continued at the HWAP. More open-top Conexes were transported, prepped and lined for contaminated soil containment. A total of 49 loads of material was moved and stockpiled at the landfill today. Two groundwater samples for DRO at the ISCO treatment site. The samples will be shipped out on the next available flight. AECOM began the TOD study. 23 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	12.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	180.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randal Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O’Neil	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

QAR inquired to CQCSM, Russell James, about BERS's dust control measures. The water truck was put to use shortly after.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table


PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	25	309	334
Volvo A40D Rock Trucks – S. McBride (DTO 553	24	252	276
Monitor Wells Drilled	0	2	2
Injection Wells Drilled			
Soil Borings Installed	0	6	6
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	1	50	51
Soil Removed	15 tons	0	15 tons (Estimate)
Used Oil Recovered	< 50 gallons	350 Gallons	350 gallons
Oily Sludge Recovered	< 50 gallons	150 gallons	150 gallons
PCB Lighting Ballasts Discovered	5	3	8
Batteries Discovered	1	7	8

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Disposal and recovery procedures for PCB lighting ballasts and batteries (broken and intact) are still being discussed.

Comments: Photo 1, looking southeast, shows the open-top conexes that will be used for contaminated soil. Photo 2, looking south, shows material being stockpiled for the landfill cap.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/23/2009
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

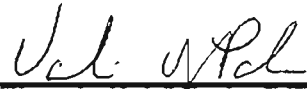
Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Noted dust was being generated in some areas along the rode. After inquiring how dusty roads were handled, the CQCSM promptly got a water truck on the road. This was a good demonstration of a properly functioning SWPPP.

Also inquired when the last SWPPP inspection was conducted. CQCSM did not know. The designated CESCL has been off island and another inspection may be due soon. CQCSM said there are two CESCLs on site that could perform an inspection if necessary.

Crew is working safely around heavy equipment. Crew is also routinely spotted wearing proper PPE and practicing safe work habits.


QAR Signature

23 July 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-22-09

Conducted By: Maze Thompson

Subjects:

- 1) Visability - Fog, Keep lights on
- 2) Don't let the mosquitos distract you
- 3) Decon- Tyvek only in decon area
- 4) _____
- 5) _____
- 6) _____

Printed Name

Signature

Company

<u>Allen Dennis</u>	<u>Allen Dennis</u>	<u>BERS</u>
<u>Johnny Willis</u>	<u>John Willis</u>	<u>BERS</u>
<u>Michael Timmer</u>	<u>Michael Timmer</u>	<u>BERS</u>
<u>EUGENE TOLKIN</u>	<u>Eugene Tolk</u>	<u>BERS</u>
<u>JACK WILLIS</u>	<u>Jack Willis</u>	<u>Bristol</u>
<u>Michael Gullagos</u>	<u>Michael Gullagos</u>	<u>BERS</u>
<u>Douglas Byers</u>	<u>Douglas Byers</u>	<u>BERS</u>
<u>SEAN M. McBRIDE</u>	<u>Sean M. McBride</u>	<u>BERS</u>
<u>Jessica Chestwood</u>	<u>Jessica</u>	<u>FWX</u>
<u>Shane O'Neill</u>	<u>Shane O'Neill</u>	<u>Environmental A.K.</u>
<u>Eric Barnhill</u>	<u>Eric Barnhill</u>	<u>BERS</u>
<u>Russell James</u>	<u>Russell James</u>	<u>BERS</u>
<u>Scott Patterson</u>	<u>Scott Patterson</u>	<u>BERS</u>
<u>Mark Heston</u>	<u>Mark Heston</u>	<u>BERS</u>
<u>Bob Schaeffer</u>	<u>Bob Schaeffer</u>	<u>AGC</u>
<u>Carl O. Calagan</u>	<u>Carl O. Calagan</u>	<u>BERS</u>
<u>Bruce Schneider</u>	<u>Bruce Schneider</u>	<u>BERS</u>
<u>Robert Nelson</u>	<u>Robert Nelson</u>	<u>Chas</u>
<u>Valerie Palmer</u>	<u>Val Palmer</u>	<u>USACE</u>
<u>George Mack</u>	<u>George Mack</u>	<u>BERS</u>
<u>Robert J. Smith</u>	<u>Robert J. Smith</u>	<u>BERS</u>





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 029
Date or Time Period: Thursday July 23rd, 2009
Client: USACE, Alaska District

Weather Conditions: Foggy in the morning, Clear in the afternoon.

Temp Low: 44°F

Temp High: 47°F

Winds were relatively calm 5 – 10 mph from the north and northwest.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Used oil	0	1

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil	AK102	0	4
DRO – Water	AK102	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:
 The Medic, Jessica Cheatwood gave a briefing on how to use the AED.
 Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. Six drums were removed from the landfill. More lighting ballasts and lead-acid batteries were discovered as well. Six trenches were excavated today in anomaly areas. Silt fence was installed below the toe of the slope of a part of the northwest anomaly. See Picture. Drum cleaning continued at the HWAP. The bulk soil Conexes were weighed. Approximately 54 tons of soil have been containerized. A total of 51 loads of material was moved and stockpiled at the landfill today. AECOM continued the TOD study, conducted a general survey of the area, and collected water levels in the monitoring wells. 23 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	12.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day

			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	180.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O'Neil	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

QAR reminded the CQCSM, Russell James, that the BERS project manager needs to send a letter to the USACE about placing floor dry into drums that are crushed, containing only minor amounts of sludge and with no recoverable product prior to reintroduction into the landfill.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

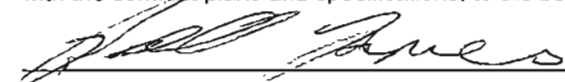
PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	26	334	360
Volvo A40D Rock Trucks – S. McBride (DTO 553	25	276	301
Monitor Wells Drilled	0	2	2
Injection Wells Drilled			
Soil Borings Installed	0	6	6
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	6	51	57
Soil Removed	39 tons	15 tons	54 tons
Used Oil Recovered	< 50 gallons	350 Gallons	350 gallons
Oily Sludge Recovered	< 50 gallons	150 gallons	150 gallons
PCB Lighting Ballasts Discovered	2	8	10
Batteries Discovered	1	7	8

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Disposal and recovery procedures for PCB lighting ballasts and batteries (broken and intact) are still being discussed. More are being discovered every day.

Comments: Photo 1, looking west, shows Trench 1, excavated on 7/23/2009 with dimensions 10x10x4. Photo 2, looking northwest, shows the silt fence installed at the toe of the slope at the northwest metallic anomaly area.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/24/2009
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

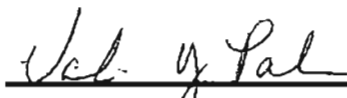
Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

When drums with content were discovered today there appeared to be some uncertainty about how they should be handled. QAR reiterated the importance of Bristol submitting a serial letter to the USACE describing exactly what the process would be. Then everyone will have the same plan and work can progress smoothly.

There are some discrepancies in the Work Plan as to where silt fencing will be installed. Some sections say silt fence will be installed around the entire landfill, and other sections say installation will occur where the Site Manager sees fit. Despite the discrepancies and the fact that the Site Manager has not been on site the fencing is being installed in appropriate locations. The only area of concern not fenced is along the haul route where additional fill has been placed to repair the road. Ponds butt directly against the road side and could become impacted by the fill material. If additional road work is needed silt fencing may need installed.

 24 July 2009
QAR Signature Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 5-23-09

Conducted By: Jess Cheatwood

Subjects: 1) Medic briefing
2) _____
3) _____
4) _____
5) _____
6) _____

Printed Name	Signature	Company
Blaze Thompson	<i>[Signature]</i>	BERS
Michael Colleges	<i>[Signature]</i>	BERS
Gregg Mack	<i>[Signature]</i>	BERS
Allen Davis	<i>[Signature]</i>	BERS
Douglas Byers	<i>[Signature]</i>	BERS
Shane C. C. C.	<i>[Signature]</i>	Emco D.A.K.
Russell J. J.	<i>[Signature]</i>	BERS
Michael T. T.	<i>[Signature]</i>	BERS
Jack Willis	<i>[Signature]</i>	Bristol
EUGENE TOOLIE	<i>[Signature]</i>	BERS
Johnny Willis	<i>[Signature]</i>	BERS
SCOTT PETERSEN	<i>[Signature]</i>	BERN
Anna K. K.	<i>[Signature]</i>	BERN
Bob Schlosser	<i>[Signature]</i>	BER
Carl D. Calagan	<i>[Signature]</i>	BERS
Valerie Palmer	<i>[Signature]</i>	WACE
Eric Burnhill	<i>[Signature]</i>	BERS
Bruce Schmechel	<i>[Signature]</i>	BERS
DEAN MR McBRIDE	<i>[Signature]</i>	BERS
Robert Nickerson	<i>[Signature]</i>	Chobala
Jessica Chomkowski	<i>[Signature]</i>	FWA
FANDY BURK	<i>[Signature]</i>	BERS





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 030
Date or Time Period: Friday July 24th, 2009
Client: USACE, Alaska District

Weather Conditions: Clear in the morning, shifting to thick fog in the afternoon.

Temp 7:00 am: 46°F

Temp 5:00 pm: 45°F

Winds 5 – 15 mph from the north.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Used oil	0	1

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil	AK102	0	4
DRO – Water	AK102	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:
 A medical video was scheduled, but could not be shown due to technical difficulties.
 Continue safe work habits. Things are going well, keep up good work.
 Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. Seven drums were removed from the landfill. More lead-acid batteries were discovered as well. Some cleaned drums were reintroduced to the landfill. Drums containing minimal sludge or sticky residue were filled with Floor-Dry and put back in the landfill. See Photos. Drum cleaning continued at the HWAP. A total of 51 loads of material was moved and stockpiled at the landfill today. AECOM conducted a teleconference with BERS management and USACE to formulate a plan for progressing forward with the pilot study. USACE decided to pursue the injection in the shallow perched aquifer area of the MOC. A Bering Air flight was scheduled, but was postponed due to thick fog. 23 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley			White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	12.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Landfill Driver-Dan Pauk			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day

			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	180.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O'Neil	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

QAR expressed concern to CQCSM, Russell James, about the depth of the excavation and the crew's proximity to its edge. CQCSM instructed the crew to keep a safe distance from the excavation edge.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒


Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	26	360	386
Volvo A40D Rock Trucks – S. McBride (DTO 553	25	301	326
Monitor Wells Drilled	0	2	2
Injection Wells Drilled			
Soil Borings Installed	0	6	6
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	7	57	64
Soil Removed	0 tons	54 tons	54 tons
Used Oil Recovered	< 50 gallons	350 Gallons	350 gallons
Oily Sludge Recovered	< 50 gallons	150 gallons	150 gallons
PCB Lighting Ballasts Discovered	0	10	10
Batteries Discovered	3	8	11

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Comments: Photo 1 shows the Floor-Dry containing drums that were reintroduced into the landfill. Photo 2 shows cleaned, cut drums after their return to the landfill.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/25/2009
Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

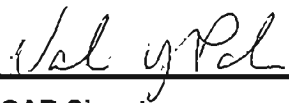
Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Noted more people around the excavation today. The excavation is getting quite deep in areas, and the sides can be undercut. One individual was asked twice to stay away from an undercut edge. When CQCSM arrived on site the undercut excavation edge was brought to his attention. After lunch workers resumed their habit of walking up to the edge of the excavation. This will be discussed at the next safety meeting. The SSHP says excavations deeper than 4 feet will have a 1.5:1.0 slope.

Observed handling of intact drums with unknown contents. No PID was used for vapor monitoring; CQCSM said no PID was available for use. The SSHP calls for generally using one when opening a drum. A drum thief was used to pull up a sample for visual identification.

In spite of the foggy conditions the road condition was quite dry. The crew did a great job of keeping the roads watered so dust did not become an issue.


QAR Signature

25 July 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-24-09

Conducted By: Jess Chestwood

Subjects: 1) Info film by Medis
2) _____
3) _____
4) _____
5) _____
6) _____

Printed Name	Signature	Company
<u>Maze Thompson</u>	<u>Maze Thompson</u>	<u>BERS</u>
<u>GEORGE MALE</u>	<u>George Male</u>	<u>BERS</u>
<u>Allen Dennis</u>	<u>Allen Dennis</u>	<u>BERS</u>
<u>Michael Tsovil</u>	<u>Michael Tsovil</u>	<u>BERS</u>
<u>Jack Willis</u>	<u>Jack Willis</u>	<u>Bristol</u>
<u>EUGENE TOULIE</u>	<u>Eugene Toulie</u>	<u>BERS</u>
<u>Shant Oloiv</u>	<u>Shant Oloiv</u>	<u>Emoril D.A. Co</u>
<u>Frank Heston</u>	<u>Frank Heston</u>	<u>BERS</u>
<u>Carl D. Calagan</u>	<u>Carl D. Calagan</u>	<u>BERS</u>
<u>Douglas Rogers</u>	<u>Douglas Rogers</u>	<u>BERS</u>
<u>Michael Calagan</u>	<u>Michael Calagan</u>	<u>BERS</u>
<u>Eric Burnhill</u>	<u>Eric Burnhill</u>	<u>BERS</u>
<u>Russell Jones</u>	<u>Russell Jones</u>	<u>ELCS</u>
<u>Sean MP McBride</u>	<u>Sean MP McBride</u>	<u>BERS</u>
<u>Bruce Schreiner</u>	<u>Bruce Schreiner</u>	<u>BERS</u>
<u>Valerie Palmer</u>	<u>Val Palmer</u>	<u>WALC</u>
<u>Scott Peterson</u>	<u>Scott Peterson</u>	<u>ACCIM</u>
<u>Robert Nickom</u>	<u>Robert Nickom</u>	<u>Cholok</u>
<u>Johnny Willis</u>	<u>Johnny Willis</u>	<u>BERS</u>
<u>Bob Chambers</u>	<u>Bob Chambers</u>	<u>ACC</u>
<u>Randy Black</u>	<u>Randy Black</u>	<u>BERS</u>





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 031
Date or Time Period: Saturday July 25th, 2009
Client: USACE, Alaska District

Weather Conditions: Foggy in the morning, clearing in the afternoon.

Temp 7:00 am: 41°F

Temp 5:00 pm: 45°F

Winds 5 – 15 mph from the north.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	1
Chlor-N-Oil	Oil	2	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil	AK102	0	4
DRO – Water	AK102	0	3

Note: The three water samples were shipped off-site on an evening Bering Air flight. They are being sent to TestAmerica in Anchorage.

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

A medical video was shown, illustrating the importance of CPR.

Keep the lights on in foggy conditions, and watch for locals on 4-wheelers.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. Eleven drums were removed from the landfill. More lead-acid batteries were discovered as well. More cleaned drums were reintroduced to the landfill. Drum cleaning continued at the HWAP. A total of 48 loads of material was moved and stockpiled at the landfill today. AECOM analyzed data to refine the conceptual model for the pilot study. The TOD study continued. Three water samples were shipped to TestAmerica in Anchorage. Slug testing was performed on three monitoring wells and will continue. A Bering Air flight was scheduled, two people arrived on-site and one person left the site. See remarks for more 25 people were on-site this day. BERS personnel ended shift at 1900 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	10.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	12.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	12.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	12.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	12.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	12.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	12.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	12.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	12.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	12.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	12.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	12.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	8.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	12.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		Down
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	199.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson					
Totals	2				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O'Neil	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

A Bering Air flight brought a load of freight this evening, consisting primarily of food from Global Services. Environmental and mechanical supplies were received as well.

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

QAR, Valerie Palmer, told BERS CQCSM, Russell James, that a PID should be on-site during the excavation. She recommended that excavation personnel stand up-wind when drums are being investigated. BERS will request that a PID be shipped to the site.

QAR mentioned at the morning safety meeting that crew are standing close to the excavation edge in areas where the excavation is deep. BERS set up reflective cones around the excavation to serve as a reminder to stand back.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	22	386	408
Volvo A40D Rock Trucks – S. McBride (DTO 553)	26	326	352
Monitor Wells Drilled	0	2	2
Injection Wells Drilled			
Soil Borings Installed	0	6	6
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	11	64	75
Soil Removed	6 tons	54 tons	60 tons
Used Oil Recovered	25 gallons	350 Gallons	375 gallons
Oily Sludge Recovered	0 gallons	150 gallons	150 gallons
PCB Lighting Ballasts Discovered	0	10	10
Batteries Discovered	1	11	12

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

At this point, broken batteries and ballasts are being set aside until further information regarding their collection is received.

The excavation at this point is fairly deep, in some places greater than 10 feet. This appears necessary in order to retrieve the liquid-containing drums. In many cases, the drums are being encountered at the deepest depths. As a safety measure, reflective cones were set up around the excavation to serve as a reminder to stand back from the excavation edge.


Chuck Croley, Site Superintendent, and Jeb Adkins, Operator, arrived on-site this evening. Shane O'Neill, Haz-Waste Specialist, left the site.

A metal box with an oil-level indicator was encountered in the landfill. It appeared as though it may have been a part to a transformer. Liquid was found within and appeared to only be water. Two Chlor-N-Oil tests were run to field screen for PCBs. Both returned negative for PCBs above 50 ppm.


The oil in the current area of the landfill is less viscous than that previously encountered. This creates the potential for more soil contamination given the poor condition of the drums, resulting in soil removal. It is likely that the original scope of work's total of 75 tons of soil will be reached in a short period of time.

Comments: Photo 1, looking east, shows the safety barrier set up around the landfill excavation. Photo 2, looking southeast, shows an area encountered in the landfill where oil was leaching through the excavation sidewall. Affected soil was removed and placed into a lined, open-top Conex container.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/27/2009
Date


Site Superintendent Signature

7-27-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

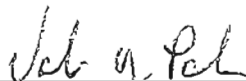
Additional comments or exceptions:

Discussed working around the excavation at the safety meeting. Options for moving work away from the excavation edge include having the operator place drums needing investigated further back from the edge and/or a Class III barrier system can be erected.

Traffic cones were placed 3 -6 feet back from the excavation edge following the safety meeting discussion. Crew did a much better job at staying away from excavation edges after that.

A crew member had to be asked not to smoke while in the act of trying to identify unknown contents in drums; contents may be flammable.

QCQSM stated that since the SSHP calls for using a PID during drum handling they will attempt to get one on site.


JAR Signature

27 July 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-25-09

Conducted By: Maze Thompson

Subjects:

- 1) Traffic - Watch for locals on 4 wheelers
- 2) Foggy conditions - lights on
- 3) CPR video
- 4) _____
- 5) _____
- 6) _____

Printed Name	Signature	Company
Carl D Calagan	<i>Carl D Calagan</i>	BERS
George Munn	<i>George Munn</i>	BERS
Michael Callegos	<i>Michael Callegos</i>	BERS
Shane A. E. Hill	<i>Shane A. E. Hill</i>	Emco Alaska
Friso Brainhill	<i>Friso Brainhill</i>	BERS
Russell James	<i>Russell James</i>	BERS
Allen Dennis	<i>Allen Dennis</i>	BERS
Michael Tamm	<i>Michael Tamm</i>	BERS
Jack Willis	<i>Jack Willis</i>	Global
EUGENE TOOLE	<i>Eugene Toole</i>	BERS
Scott Provencher	<i>Scott Provencher</i>	MECON
Johnny Willis	<i>Johnny Willis</i>	BERS
Valerie Palmer	<i>Valerie Palmer</i>	USALE
Daniala Breyer	<i>Daniala Breyer</i>	BERS
Bob Schvasser	<i>Bob Schvasser</i>	AGE
Robert Nelson	<i>Robert Nelson</i>	Global
Bruce Schmeier	<i>Bruce Schmeier</i>	BERS
Meredith HASTON	<i>Meredith HASTON</i>	MECON
Sean M. McIsaac	<i>Sean M. McIsaac</i>	BERS
Jessica Christward	<i>Jessica Christward</i>	Fox





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 032
Date or Time Period: Sunday July 26th, 2009
Client: USACE, Alaska District

Weather Conditions: Cloudy, with periods of rain.

Temp 7:00 am: 47°F

Temp 5:00 pm: 49°F

Winds 5 – 15 mph from the northeast, shifting to east winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	1
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil	AK102	0	4
DRO – Water	AK102	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Look out for 4-wheelers on the roads. Use 3-point mount and dismount techniques, don't jump off the equipment.

The medic recommended that everybody washes hands after using the restroom and before eating.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> 1. The start of the shift for Bristol was 0630 hrs. 2. Landfill drum removal excavation continued. Eleven drums were removed from the landfill. More lead-acid batteries were discovered as well. More cleaned drums were reintroduced to the landfill. 3. Drum cleaning continued at the HWAP. 4. A total of 43 loads of material was moved and stockpiled at the landfill today. 5. AECOM analyzed data to refine the conceptual model for the pilot study. The TOD study continued. Slug testing was performed on monitoring wells in the MOC. 6. 24 people were on-site this day. 7. BERS personnel ended shift at 1700 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	10.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	10.5	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	10.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	10.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	10.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	10.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	10.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	10.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	10.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	10.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	10.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	10.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	10.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	10.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	10.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	10.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day

			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	172.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O'Neil					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

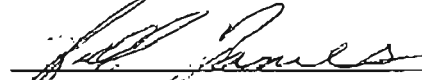
Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	23	408	431
Volvo A40D Rock Trucks – S. McBride (DTO 553)	20	352	372
Monitor Wells Drilled	0	2	2
Injection Wells Drilled			
Soil Borings Installed	0	6	6
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	11	75	86
Soil Removed	2 tons	60 tons	62 tons
Used Oil Recovered	30 gallons	350 Gallons	380 gallons
Oily Sludge Recovered	50 gallons	150 gallons	200 gallons
PCB Lighting Ballasts Discovered	1	10	11
Batteries Discovered	2	12	14


Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Comments: Photos 1 and 2, both looking northeast, show an example of the drum pulling operation.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/27/2009
Date


Site Superintendent Signature

7-27-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

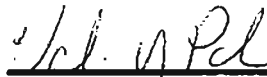
Additional comments or exceptions:

Discussed fatigue at the morning's safety meeting. Most of the crew has been working for several weeks straight. It's important to look out for your neighbor and keep your head on a swivel.

The Volvo 330 was repaired today. Presumably the remainder of the soil contaminated with hydraulic oil will be collected and containerized the next day.

Observed borrow pit activities. Truck loading and hauling appears to be going smoothly. The cover material stockpiles should be getting close to sufficient to cover the landfill.

A drum containing a small amount of antifreeze was found in the landfill today. The CQCSM said there currently isn't a waste stream for antifreeze so it will most likely be added to any antifreeze waste generated on site and disposed of all together.



27 July 2009

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: 7-26-09

Conducted By: C. L. Croley

- Subjects:
- 1) 3 point mount & Dismount
 - 2) Tram equipment
 - 3)
 - 4) Vehicle Inspections & Marking
 - 5) & Near before operations
 - 6)

Printed Name	Signature	Company
Michael Gallegos		BERS
Carl D. Calagan		BERS
Bruce Schreuer		BERS
George Mack		BERS
Eric Burnhill		BERS
Danley Byers		BERS
SEAN M. McBRIDE		BERS
Jebb Adkins		BERS
Valerie Palmer		USACE
MARC HANSTON		ARCON
Michael Toolie		BERS
Allen Dennis		BERS
Scott Peterson		BERS
JACK WILLIS		BERS
EUGENE TOOLIE		BERS
Russell Jones		BERS
Bodo Schlosser		ARC
Johnny Willis		BERS
KAROT NELSON		Chobak
KANDY BAKER		BERS





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 033
Date or Time Period: Monday July 27th, 2009
Client: USACE, Alaska District

Weather Conditions: Cloudy, with periods of rain.

Temp 7:00 am: 46°F

Temp 5:00 pm: 49°F

Winds 5 – 15 mph from the north, shifting to east winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	1
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil	AK102	0	4
DRO – Water	AK102	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Wear appropriate PPE when working around the fuel ISO tanks. Be careful on steep grades with heavy loads. No smoking within 50 feet of fueling operations and keep cigarette butts off the ground.

Reminder: This is a dry camp.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. Eleven drums were removed from the landfill. 12 lead-acid batteries, most of them broken, were discovered as well. More cleaned drums were reintroduced to the landfill. Drum cleaning and pumping operations continued at the HWAP. AECOM analyzed data to refine the conceptual model for the pilot study. The TOD study continued. 26 people were on-site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day

			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	189.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randy Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Hazardous Waste Specialist – Shane O'Neil					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	0	431	431
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	372	372
Monitor Wells Drilled	0	2	2
Injection Wells Drilled			
Soil Borings Installed	0	6	6
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	11	86	97
Soil Removed	0 tons	62 tons	62 tons
Used Oil Recovered	70 gallons	380 Gallons	450 gallons
Oily Sludge Recovered	50 gallons	200 gallons	250 gallons
PCB Lighting Ballasts Discovered	0	11	11
Batteries Discovered	12	14	26

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Majority of batteries are broken.

The two man drill crew from Denali Drilling returned to site today (Randy Roberson and David Cramer)

Comments: Photos 1, facing northwest, shows Bristol environmental crew investigating drum from the Cargo Beach Road Landfill. Photo 2, looking northwest, shows the southwest edge of the landfill excavation.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

07/28/2009
Date


Site Superintendent Signature

7-28-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Observed remaining cleanup activities and containerization of the hydraulic oil spill from the Volvo 330. Area visibly looked good, and the SM said the area will be sampled to confirm cleanup was sufficient.

Suggested to the COR that this week would be a good time to have a Project Status meeting with the Bristol PM. Project schedule, excavation and cover placement, broken batteries and light ballasts, and ISCO issues were proposed topics.


QAR Signature

28 July 2009
Date

Supervisor's Initials

Date





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 034
Date or Time Period: Tuesday July 28th, 2009
Client: USACE, Alaska District

Weather Conditions: Cloudy, with periods of rain.

Temp 7:00 am: 47°F

Temp 5:00 pm: 52°F

Winds 0 – 10 mph from the northeast, shifting to southeast winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No
Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

No deficiencies noted today.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	1
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC	AK102/103, AK101, EPA8260	2	2
DRO – Water	AK102	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Be Careful of high traffic at the landfill. Watch for people walking around and wear high visibility clothing. Slower is faster. Do things carefully so we don't cause accidents or make mistakes.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. Seventeen drums were removed from the landfill. 12 lead-acid batteries, most of them broken, were discovered as well. More cleaned drums were reintroduced to the landfill. Drum cleaning and pumping operations continued at the HWAP. Landfill capping began in the landfill. AECOM continued monitoring the TOD study. The electrical and heating components of the injection system were worked on. Two monitoring wells were installed (ICOMW03 and ICOMW04). Two soil samples were collected. Groundwater elevations were collected in the monitoring wells. 27 people were on-site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.5	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.25	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day

			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	189.25	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randy Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒
Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒
Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	0	431	431
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	372	372
Monitor Wells Drilled	2	2	4
Injection Wells Drilled			
Soil Borings Installed	2	6	8
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	17	97	114
Soil Removed	5 tons	62 tons	67 tons
Used Oil Recovered	50 gallons	450 Gallons	500 gallons
Oily Sludge Recovered	100 gallons	250 gallons	350 gallons
PCB Lighting Ballasts Discovered	0	11	11
Batteries Discovered	12	26	38

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Comments: Photo 1 shows an example of some of the drums being pulled from the landfill. Photo 2, looking northeast, shows part of the landfill capping operation.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



CQCSM Signature

7/29/2009

Date



Site Superintendent Signature

7-29-09

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

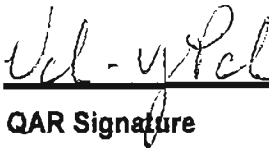
Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Observed cover placement activities. Grade stakes were placed in areas to delineate the required 24 inches of cover. The dozer operator was doing a good job of placing cover material in approximately 6 inch lifts and track-walking over the cover; the goal stated in the Work Plan is 90% relative compaction.

Visited the area SSE of the road where the cover was already placed. Showed the CQCSM the areas that have insufficient cover; CQCSM gave assurances that these areas will be addressed. CQCSM also said a crew on a "trash detail" will quickly comb the area and remove miscellaneous debris outside the designated cover area. Later in the day crew members were sited working in the area.

CQCSM asked if silt fencing needed installed between the landfill and the pond immediately to the west of the landfill. The Work Plan says silt fencing will be installed around the entire landfill, and the SWPPP says it will be installed where needed. The CQCSM came to the appropriate conclusion that fencing should be installed.



QAR Signature

29 July 2009

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Tuesday
Date: 7/21/09

Conducted By: Chuck Croley

- Subjects:
- 1) Traffic in a tight area: watch for truck
 - 2) drivers watch for local traffic & drums
 - 3) hauling: High visibility clothing.
 - 4)
 - 5) Cap is 2' Total. Meant to be 6" lifts. We will
 - 6) track walk for compaction. Do not bury without adequate track walk.

Slower is
Faster

Printed Name	Signature	Company
George Mack		BERS
JACK WILLIS		Bristol
EUGENE TOOLE		BERS
Michael Toole		BERS
Allen Harris		BERS
Maze Thompson		BERS
Michael Callegas		BERS
Mark Holston		ABCOM
Bob Schlosser		AGE
Eric Barnhill		BERS
Carl D. Colagan		BERS
John Adams		BERS
Johnny Willis		BERS
Jessica Chumprun		FWX
Scott Bremer		ABCOM
Russell James		BERS
Bruce Schmeier		BERS
Sean MP McBride		BERS
Donald Cameron		Donali Drilling
Randy Robinson		Donali Drilling
Randy Black		BERS

JEFFERSON CHEMICAL CO
FORT NECHES TEXAS
CORPS OF ENGINEERS
BATTLE ARMY TERMINAL, PIER 9
SEATTLE WASHINGTON



DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 035
Date or Time Period: Wednesday July 29th, 2009
Client: USACE, Alaska District

Weather Conditions: Cloudy and foggy with rain and drizzle. Low visibility prevented normal flight operations today.

Temp 7:00 am: 47°F

Temp 5:00 pm: 48°F

Winds 0 – 5 mph from the northeast, shifting to south winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: Yes
Follow-up: Yes
Notes: Attached to DQCR

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

QAR noted that there is no PID in use during the excavation. BERS has requested a PID at the site, which was supposed to arrive this day, but due to weather, will be arriving on the 30th instead. See Drum Removal Follow Up Inspection Form.

Field Sampling and Testing

Has field testing been performed this date? Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	1
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved? Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis? Yes ☒ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC	AK102/103, AK101, EPA8260B, EPA9060	1	3
DRO – Water	AK102	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

We will be putting more "No Smoking" signs around fueling areas. Be very aware in the landfill area and be careful in high traffic areas. Yield to bigger vehicles. Think ahead about supplies we might need and bring them to attention so we can have things shipped out here without having to slow down progress.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none">1. The start of the shift for Bristol was 0630 hrs.2. Landfill drum removal excavation continued. Eleven drums were removed from the landfill. 5 lead-acid batteries were discovered as well. More cleaned drums were reintroduced to the landfill. Silt fence was installed at the toe of the slope to protect a pond from sediment intrusion.3. Drum cleaning and pumping operations continued at the HWAP.4. Landfill capping continued in the landfill on the east side of the roadway and in the Northeastern anomalies. An Initial Checklist was filled out and is attached to the DQCR.5. AECOM continued monitoring the TOD study. The electrical and heating components of the injection system were worked on. One monitoring well was installed (ICOMW05). Two soil samples were collected. Top of casing elevations were collected for monitoring wells in the immediate vicinity of the pilot study.6. 27 people were on-site this day.7. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.25	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day

			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	189.75	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randy Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	0	431	431
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	372	372
Monitor Wells Drilled	1	4	5
Injection Wells Drilled			
Soil Borings Installed	1	8	9
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	11	114	125
Soil Removed	5 tons	67 tons	72 tons
Used Oil Recovered	< 50 gallons	500 Gallons	< 550 gallons
Oily Sludge Recovered	< 50 gallons	350 gallons	< 400 gallons
PCB Lighting Ballasts Discovered	0	11	11
Batteries Discovered	5	38	43

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

An initial checklist was performed with the QAR for the landfill cap. A follow-up inspection was performed for the drum removal. Inspection sheets are attached to DQCR.

Monitoring well logs, boring logs, and drill rig inspection sheets are attached to DQCR.


Heavy fog prevented normal supply and crew change operations today.

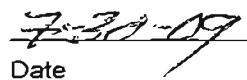
Comments: Photo 1 shows the landfill and adjacent pond prior to silt fence installation. Photo 2 shows the landfill and adjacent pond following the silt fence installation.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature


Date


Site Superintendent Signature


Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

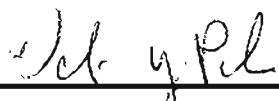
Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Crew member was seen in the side-by-side circumnavigating the landfill area searching for large wood debris and miscellaneous items. These items were stockpiled near the road. Stockpiled items will be placed back in the landfill. The Site Manager said he would like to see the tires from an adjacent pond be placed back in the landfill too, even though he realizes it an out-of-scope item. The Site Manager appears to have a genuine interest in making the landfill area look much better (cleaner) than the way it was found during mobilization.

Performed the landfill cover initial inspection with CQCSM. Work to date appears good – areas with insufficient cover are being appropriately re-addressed. Grade stakes are placed to ensure sufficient coverage, and track-walking is providing good compaction. Additional grade stakes need placed as the cover activities move into new locations.

Performed a follow-up inspection for drum removal activities with CQCSM. Drums continue to be well inspected for contents, and drums removed for draining and cleaning are returning to the landfill well washed or sufficiently filled with absorbent material (aka kitty litter). Grossly contaminated soil is being containerized as appropriate. Waste management activities are a significant part of the drum removal process, but little management has occurred, making it difficult to perform an inspection on. The CQCSM was reminded that waste water sample analysis depends on sample results from removed waste, so sequencing of those samples will be important. CQCSM is not concerned about how the waste water will be handled yet since it has not been sampled. The QAR has concerns about how the wastewater will be handled, though, since its turbidity appears to be significant. Whether or not there is a real issue will be answered once sample results are known. No date is set for sampling yet.


QAR Signature


Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Wednesday
7-29-09

Conducted By: Chuck Crosley

Subjects: 1) We will again be working in some close
2) areas along the roadway with backfill
3) operations. Everyone be aware of
4) other people's work as well as your own
5) safe work practices.
6) Thanks Jessica for the safety presentations
of high brand especially for making some of our personnel aware
of high brand pressure.

Printed Name	Signature	Company
JACK WILLIS	<i>Jack Willis</i>	Brestax
EUGENE TUCKLE	<i>Eugene Tuckle</i>	BERS
Michael Thorne	<i>Michael Thorne</i>	BERS
Allen Dunn's	<i>Allen Dunn's</i>	BERS
Maze Thompson	<i>Maze Thompson</i>	BERS
Carl D. Coligan	<i>Carl D. Coligan</i>	BERS
George Marx	<i>George Marx</i>	BERS
Bob Schlessner	<i>Bob Schlessner</i>	ARCAN
Johnny Willis	<i>Johnny Willis</i>	BERS
Danley Byers	<i>Danley Byers</i>	BERS
Valerie Palmer	<i>Valerie Palmer</i>	USACE
Michael Colleger	<i>Michael Colleger</i>	BERS
Lo. Burnhill	<i>Lo. Burnhill</i>	BERS
Russell James	<i>Russell James</i>	BERS
Scott Potvin	<i>Scott Potvin</i>	ARCAN
Scott MP Madrone	<i>Scott MP Madrone</i>	BERS
Kathy Blay	<i>Kathy Blay</i>	USACE
Jerry Adkins	<i>Jerry Adkins</i>	BERS
Jessica Chaudhary	<i>Jessica Chaudhary</i>	FWX
Robert Nelson	<i>Robert Nelson</i>	Global
Randy Roberts	<i>Randy Roberts</i>	Donati Drilling
Daniel C. Cranner	<i>Daniel C. Cranner</i>	Donati Drilling
Bruce Schaefer	<i>Bruce Schaefer</i>	BERS

Follow-up Phase Inspection Checklist

Contract No.: W911KB-09-C-0013

Date: 07/29/2009

Contract Title: NE Cape In-situ Chemical Oxidation Study/Intrusive Drum Removal and Landfill Cap

Definable Feature of Work: Intrusive Drum Removal at Cargo Beach Road Landfill

Specification Section: _____ Review Completed: _____ Approval Obtained: _____

Location of Inspection: Cargo Beach Road Landfill (Site 7)

Deficiencies Noted:

1. 7/28 at inspection
- Remnant of Drum Identification Sampling
which is not seen

Corrective Action Taken:

Pre - in R-10
- Check Mass and Sampling Requirements

[Signature]
CQCSM

7/29/09
Date

[Signature]
QAR

07/29/09
Date

Original and one copy to QAR.

Retain copy in Bristol field project file.

Forward completed copy to Bristol QC Manager.

Initial Phase Inspection Checklist

Contract No.: W911KB-09-C-0013

Date: 7/29/2009

Contract Title: NE Cape In-situ Chemical Oxidation Study/Intrusive Drum Removal and Landfill Cap

Definable Feature of Work: Construct Landfill Cap at Cargo Beach Road Landfill (Site 7)

Specification Section: _____ Review Completed: _____ Approval Obtained: _____

Personnel Present		
Name	Position	Organization
1. Russell James	CQCSM	BERS
2. Valerie Palmer	QAR	USACE
3.		
4.		
5.		
6.		
7.		

(List additional personnel on reverse side)

B. Are materials being used in compliance with the contract plans and specifications?

Yes ☒ No _____ If not, explain: _____

C. Are procedures and/or work methods in compliance with approved shop drawings, plans and specifications?

Yes ☒ No _____ If not, explain: _____

D. Is workmanship acceptable?

Yes ☒ No _____ Indicate areas of needed improvement (attach extra sheet).

E. Safety violations and corrective action taken:

Made noise spikes
[Signature] 7/29/09
CQCSM Date
[Signature] 29 July 09
QAR Date

Original and one copy to USACE QAR.

Retain copy in Bristol field project file.

Forward completed copy to Bristol QC Manager.

Drill Rig Inspection Checklist

Date <i>7-27-09 7/28/09</i>	Equipment Model/Type: <i>Mob: 13-G1/trk</i>
Project Name: <i>Bristol Enviro.</i>	Serial or License # <i>TD-42 / 5675BR-AK</i>
Project # <i>ST. Lawrence Isl.</i>	Location Owner/Operator: <i>ST. Lawrence Isl.</i>
Project Manager: <i>Chuck Crowley</i>	Inspector: <i>Randy Robinson</i>

Place a (✓) in the "Yes" column if the requirement has been met. If a "No" is encountered, equipment must be removed from operation until the deficiency has been corrected. Describe deficiencies on page two of this form. Use the Comment column to note any additional information needed to certify the equipment. If a checklist item is found to be "Not Applicable," check "NA" and provide a comment in the appropriate box.

Item Name	Requirement	Yes	No	NA	Comment
Hydraulic systems controls and levers	No leak fittings or connections. Levers are in good operating condition. Fluid levels are full.	X			
Fuel, oil, water, and coolant lines	No leaks.	X			use yellow chunk pads small trk engine leak.
Hoses	No leaks in hoses or connections. No signs of excessive wear, kinked or bent hoses.	X			
Gauges	Operational and visible to operator.	X			
Emergency kill switch and life line	Operational and accessible to operator.	X			operator side only
Shear pins	In place.	X			
Drive chains	No signs of excessive wear, broken or defective links.	X			
Parking brakes	Set and operational.	X			use wheel chocks
Outriggers	No leaks. Set on pads (as necessary to avoid damage).	X			
Windshield Wipers	Operational.	X			
Lights (head, tail and running lights)	Operational and without cracked lenses.	X			
Back-up alarm	Operational, spotter used.	X			use spotter/sound horn 3 times
Cables and ropes	No fraying, birdnesting, flattening, stretching. Must be braided or properly clamped at connections.	X			
Pulleys, drums and spools	No excessive wear or cracking.	X			
Derrick/Mast	Locked in position. Frame is not cracked or bent.	X			

Drill Rig Inspection Checklist

Item Name	Requirement	Yes	No	NA	Comment
Hoists	Properly spooled cable, rated to lift loads.	X			
Safety equipment	Safety harness, fire extinguisher, flares, safety reflectors, first aid kit, grounding wire for fueling, and spill response equipment (for fueling and repairs).	X			
Guards	Power take-offs (PTOs) and all rotating parts designed with guards. Guards must have warning labels.	X			
Miscellaneous (as applicable)	Diverter systems; auger and head seals; cyclones; grout plant guards; etc. (list): • • •	X			
DEFICIENCIES (Explain all negative response and list corrective actions; all deficiencies must be corrected before the rig is entered into service): 1. 2. 3. 4. 5.					
Other Repairs, Routine Maintenance and/or Comments: 					

Inspection Conducted and Certified by:

	Print Name:	Signature	Date:
Owner / Operator	Randy Roberson	Randy Roberson	7-28-09

Checklist Reviewed by:

	Print Name:	Signature	Date:
Earth Tech PM or SSO	MARK HEASTON	Mark Heaston	7-28-09

Drill Rig Inspection Checklist

Date 7-29-09	Equipment Model/Type: Mobil B-61/Trk
Project Name: Bristol Enviro.	Serial or License # TD-42 5E75BR-AK
Project # ST. Lawrence	Location Owner/Operator: ST. Lawrence Isl.
Project Manager: Chuck Crowley	Inspector: Randy Roberson

Place a (✓) in the "Yes" column if the requirement has been met. If a "No" is encountered, equipment must be removed from operation until the deficiency has been corrected. Describe deficiencies on page two of this form. Use the Comment column to note any additional information needed to certify the equipment. If a checklist item is found to be "Not Applicable," check "NA" and provide a comment in the appropriate box.

Item Name	Requirement	Yes	No	NA	Comment
Hydraulic systems controls and levers	No leak fittings or connections. Levers are in good operating condition. Fluid levels are full.	X			
Fuel, oil, water, and coolant lines	No leaks.	X			use shallow chuck, push small oil leak drill motor
Hoses	No leaks in hoses or connections. No signs of excessive wear, kinked or bent hoses.	X			
Gauges	Operational and visible to operator.	X			
Emergency kill switch and life line	Operational and accessible to operator.	X			operators side
Shear pins	In place.	X			
Drive chains	No signs of excessive wear, broken or defective links.	X			
Parking brakes	Set and operational.	X			use wheel chocks
Outriggers	No leaks. Set on pads (as necessary to avoid damage).	X			
Windshield Wipers	Operational.	X			
Lights (head, tail and running lights)	Operational and without cracked lenses.	X			
Back-up alarm	Operational, spotter used.	X			use spotter / sound horn 3 times
Cables and ropes	No fraying, birdnesting, flattening, stretching. Must be braided or properly clamped at connections.	X			
Pulleys, drums and spools	No excessive wear or cracking.	X			
Derrick/Mast	Locked in position. Frame is not cracked or bent.	X			

Drill Rig Inspection Checklist

Item Name	Requirement	Yes	No	NA	Comment
Hoists	Properly spooled cable, rated to lift loads.	X			
Safety equipment	Safety harness, fire extinguisher, flares, safety reflectors, first aid kit, grounding wire for fueling, and spill response equipment (for fueling and repairs).	X			
Guards	Power take-offs (PTOs) and all rotating parts designed with guards. Guards must have warning labels.	X			
Miscellaneous (as applicable)	Diverter systems; auger and head seals; cyclones; grout plant guards; etc. (list): . . .	X			
DEFICIENCIES (Explain all negative response and list corrective actions; all deficiencies must be corrected before the rig is entered into service):					
1. 2. 3. 4. 5.					
Other Repairs, Routine Maintenance and/or Comments:					

Inspection Conducted and Certified by:

	Print Name:	Signature	Date:
Owner / Operator	Randy Roberson	Randy Roberson	7-29-09

Checklist Reviewed by:

	Print Name:	Signature	Date:
Earth Tech PM or SSO	MARK HEASTON	mark heaston	7-29-09

Borehole Log (Shallow)

Site: ISCO MCC AREA		LocID: 1C01W03	
Project Name: NECAPE MCC ISCO		Project Number: 112642.02	Sheet: 1 of 1
Drilling Equipment: Mobil E-61		Date/Time Started: 7/28/09 0730	Total Depth (feet): 10.5
Drilling Contractor: Denali Drilling		Date/Time Finished: 7/28/09 1430	Depth to Water (feet): 2.6
Driller: R. Robertson		Water Added (gal): None	
Drilling Method: HSA		Borehole Diameter (in): 8 1/4	Ambient PID (ppm): 0.1
Drilling Fluid: None		Logged By: R. Schlessor	Checked By:

Depth (feet)	USCS Lithologic Description	USCS Type	Samples			Sample Time	Remarks (sample details, color, etc.)
			PID (ppm) Spoon	Number	Recovered Length (feet)		
0	Auger through Fill, sandy silty gravel w/ large cobbles. 4.5' Fill	Fill					headspace.
	Drive spoon @ 4.5 - 6.5						Depth PID ppm F10ppm 4.5-5.5 93 490
	4.5 silt dk brown w/ sand @ 5.5' out of pebbles	ML		4.5			5-6.5 307 2010 → 40 fid
5	visibly moist, fine mths silt lenses. strong pet. odor, p	Pert		2.5			6.5-7.5 35 307 5 fid
	pull 6.5 - 8.5 top 6.5 - 7.5	GM	6.5				7.5-8.5 32 318
	very wet saturated silty peat. - 7.5 - 8.5 silty peat	ML		8.5			8.5-9.5 100 749
	orange silt dk brown @ 6.5 - 7.5	GM	9.5				drive spoon 4.5 - 6.5
10	7.5 gravelly silt dk brown saturated @ 7.5 - 8.5	GM	10.0				pid 82 fid 340 4.5 - 5.5
	silty peat - v silty light silty moist @ 9.5 mod gy - dk gy						pid 158 1750 fid 5.5 - 6.5
	silty gravel, sandy IP, grading to hgy silt @ 9.5, partial frozen						drive spoon 6.5 - 8.5
	auger to 10.5 to set well						pid fid 102 = 2.3 ppm
	gravel to 2 1/2" in spoon.						pid 37 fid 1010 10.5
	Sample 10.5 - 10.5						drive spoon 8.5 -
15	10 feet sand and gravel prepack to						pid 58 fid 220
							pid - fid BZ - 0.5 ppm

USCS NAME: Consistency/Density (predominantly fine: very soft (n=0-1), soft (n=2-4), medium soft (n=5-9), stiff (n=9-15), very stiff (n=16-30), hard (n=31-49) (predominantly coarse: very loose (n=0-4), loose (n=5-10), medium dense (n=11-20), dense (n=21-30), very dense (n=31-49); Moisture (dry, moist, wet); Color; Gradation (relative percentages of soil components - no modifiers); Plasticity/Cohesiveness (predominantly fine: nonplastic (liquid limit < 25), slightly plastic (l=26-40), low plasticity (l=41-49), medium plasticity (l=50-60), high plasticity (l=61-75) (predominantly coarse: cohesive, cohesionless); Stratification/Structure (blocky, massive, layered, etc.); Contacts (sharp, gradational); Bedding (horizontal, inclined); Cementation (none, weak, moderate, strong); Other Descriptive Elements; Geologic Origin

S# = Sample Number; SP = Spoon Drive; SD = Sample Depth; ST = Sample Time; A = Analysis

BZ = Breaching Zone; BG = Background; BH = Borehole; CB = Cuffings Bin

driller ran bit to clean out hole TDE 10.5

Sample 10.5 - 10.5

Screen 10.5 - 5.5 .006 prepack w/ 10/20

10/20 sand to 4.5 - 3 bags

grout - neat cement 3.5 - 5

Borehole Log (Shallow)

Site: NE CAPE MCC ISCU	LocID: ILC MLC 4	
Project Name: NE CAPE MCC ISCU	Project Number: 112642.02	Sheet: 1 of 1
Drilling Equipment: Mobil B-61	Date/Time Started: 7/28/09 1400	Total Depth (feet): 10.5
Drilling Contractor: Denali Drilling	Date/Time Finished: 7/28/09 1700	Depth to Water (feet): ~6.5
Driller: R. Roberson		Water Added (gal): None
Drilling Method: HSA	Borehole Diameter (in): 8 1/4	Ambient PID (ppm): C.C. ppm
Drilling Fluid: None	Logged By: R.M. Schlessel	Checked By:

Depth (feet)	USCS Lithologic Description	USCS Type	Samples				Sample Time	Remarks (sample details, odor, etc.)
			PID (ppm) Spoon	Number	Recovered Length (feet)	Blow Count		
0	Auger through fill, gravel, silt and sand matrix to 3.5, mod hd in old perimeter rd. 3.5-5.5 cobbles in shoe only recovered at pid. 6 ppm. Fid 10 ppm - auger to 5.5 to try and get cobbles cleared. 1 peat in very btm of shoe. 5.5-5.9 ml-cl, ddb. 5.7-7.5 silty peat, vdk brn, st. moist, v silty loc, straw pet. odor - to 4.2 peat becoming silty, v cold - partially frozen - strong pet odor. @ 10 - gravel, to 10.2 silty, mod dense, partially frozen, mod odor, moist occ, probably frozen, ice crystals in matrix, after further examination Auger to 10.5 to set well. Set Sump 10.5 - 10.8 Top of Screen @ 5.2 10/20 Sand - to 4.5	Fill NR ML PEAT 9.2 ML	ML	35 Rec 0.4 5.5 Rec 2.5 7.5 Rec 2.0 9.5	1 4 6 5 1 2 3 6 7 5 8	6-7.5 14.5 7.5-9.5 15.5 9-9.5 14.5	split spoon 3.5-5.5 rec 0.4 Fid pid 02 - 0.0 ppm split spoon 5.5-7.5 140 pid 650 fid of peat. split spoon 7.5-9.5 pid e peat silt contact 20 ppm pid 75 fid Auger to 10.5 to set well in silt. heads pace samples A/D 4.5-5.6-7.5 250 5.6-7.5-9.5 750 6.5-7.5-9.5 140	PID 1500 165 24
5								
10								
15								

USCS NAME: Consistency/Density (predominantly fine: very soft (n=0-1), soft (n=2-4), medium stiff (n=5-6), stiff (n=7-15), very stiff (n=16-30), hard (n=31-45) (predominantly coarse: very loose (n=0-4), loose (n=5-10), medium dense (n=11-30), dense (n=31-60), very dense (n=61-80), E: Plasticity (dry, moist, wet); Color; Gradation (relative percentages of soil components - no modifiers); Plasticity/Cohesiveness (predominantly fine: nonplastic (liquid limit < 25), slightly plastic (n=1/4-1/8), low plasticity (n=1/8-1/16), medium plasticity (n=1/16-1/32), high plasticity (n=1/32-1/64) (predominantly coarse: cohesive, cohesionless); Stratification/Structure (blocky, massive, lensed, etc.) (consistency: sharp, gradational) (bedding: horizontal, inclined); Cementation (none, weak, moderate, strong); Other Descriptive Elements; Geologic Origin

GS = Sample Number; SP = Spoon Depth; SD = Sample Depth; ST = Sample Time; A = Analysis
 BZ = Borehole Zone; BG = Background; BH = Borehole; CB = Cuttings Bin

Borehole Log (Shallow)

Site: ESCO MOC AREA		LocID: ICOMW05	
Project Name: NE CAPE MOC ESCO		Project Number: 112642.02	Sheet: 1 of 1
Drilling Equipment: MOBILE B-61		Date/Time Started: 7/29/09 - 0930	Total Depth (feet): 9'
Drilling Contractor: Denali Drilling		Date/Time Finished: 7/29/09 1430	Depth to Water (feet): ~7'
Driller: R. Robinson			Water Added (gal): -
Drilling Method: HSA		Borehole Diameter (in): 8 1/4	Ambient PID (ppm): 0.0
Drilling Fluid: None		Logged By: R. Schlosser	Checked By: -

Depth (feet)	USCS Lithologic Description	USCS Type	Samples				Sample Time	Remarks (sample details, odor, etc.)
			PID (ppm) Spoon	Number	Recovered Length (feet)	Blow Count		
0	Through Fill, gravel silt & sand w/ occ cobbles.	FI						
4.5	4.5-5' silty gravel mgy, sl pet odor, dense, mod moist	GM	45	5-65	4.5	2		4.5-5' pid 73 Fid 250 spilt spoon 4.5-6.5 peat 5'-6.5 pid 105 - 750 Fid
5	5-8' peat m-dk brown, strong pet odor, stiff moist @ 6', fine peat, becoming siltier w/ depth.	Peat	52	6.5	6.5	2		
6	@ 8' sharp contact	Peat	8	8	2	2		
6.5	6.5-8.5 silt, clayey IP, med gy, dry-sl moist dense.	ML	1100	8-8.5	2	3		
8	Auger to 9' to set well.	ML	85	1115	8.5	4		*No pid reading 6.5-8.5 Fid flame out from mudstone and burn

USCS NAME: Consistency/Density (predominantly fine: very soft (n=0-1), soft (n=2-4), medium soft (n=5-8), stiff (n=9-15), very stiff (n=16-30), hard (n=31-49)) / (predominantly coarse: very loose (n=0-4), loose (n=5-10), medium dense (n=11-30), dense (n=31-50), very dense (n=51-69)); Holocene (dry, moist, sat); Color; Gradation (relative percentages of soil components-no modifiers); Plasticity/Cohesiveness (predominantly fine: nonplastic (liquid limit < 25), slightly plastic (LL=1/4-1/2), low plasticity (LL=1/3-1/16), medium plasticity (LL=1/32), high plasticity (LL=1/64)) / (predominantly coarse: cohesive, cohesionless); Stratification/Structure (blocky, massive, lensed, etc.); Contacts: sharp, gradational; Bedding: horizontal, inclined; Cementation (none, weak, moderate, strong); Other Descriptive Elements; Geologic Origin

69 = Sample Number; GP = Spoon Driven; GD = Sample Depth; ST = Sample Time; A = Analysis

BZ = Breaching Zone; BG = Background; BH = Borehole; CB = Cuttings Bin

WELL COMPLETION RECORD

JOB NO.: 112642.02 WELL NO.: ICOM0004 HYDROGEOLOGIST: R. Schwosser
 CLIENT: BRISTOL DRILLER: R. Robinson
 WELL LOCATION: ISCO MOC AREA DATE/TIME: 7/28/09 1700

DETAILS OF CONSTRUCTION

Date Completed 7/28/09
 Borehole Diameter (in.) 8 7/8
 Type and Size of Casing (in.) PVC 2"
 Type and Size of Screen (in.) PVC prepack 2"
 Screen Perforation Diameter (in.) w/ 3" overpack
 Screen Length (ft.) 5'
 Centralizer Depths (ft.) N/A

Completion Technique

1. Type of Filter Pack and Placement Method

10/20 Silica Sand & 30/70 Silica Sand

2. Type of Bentonite and Placement Method

None

3. Type of Grout Mixture and Placement Method

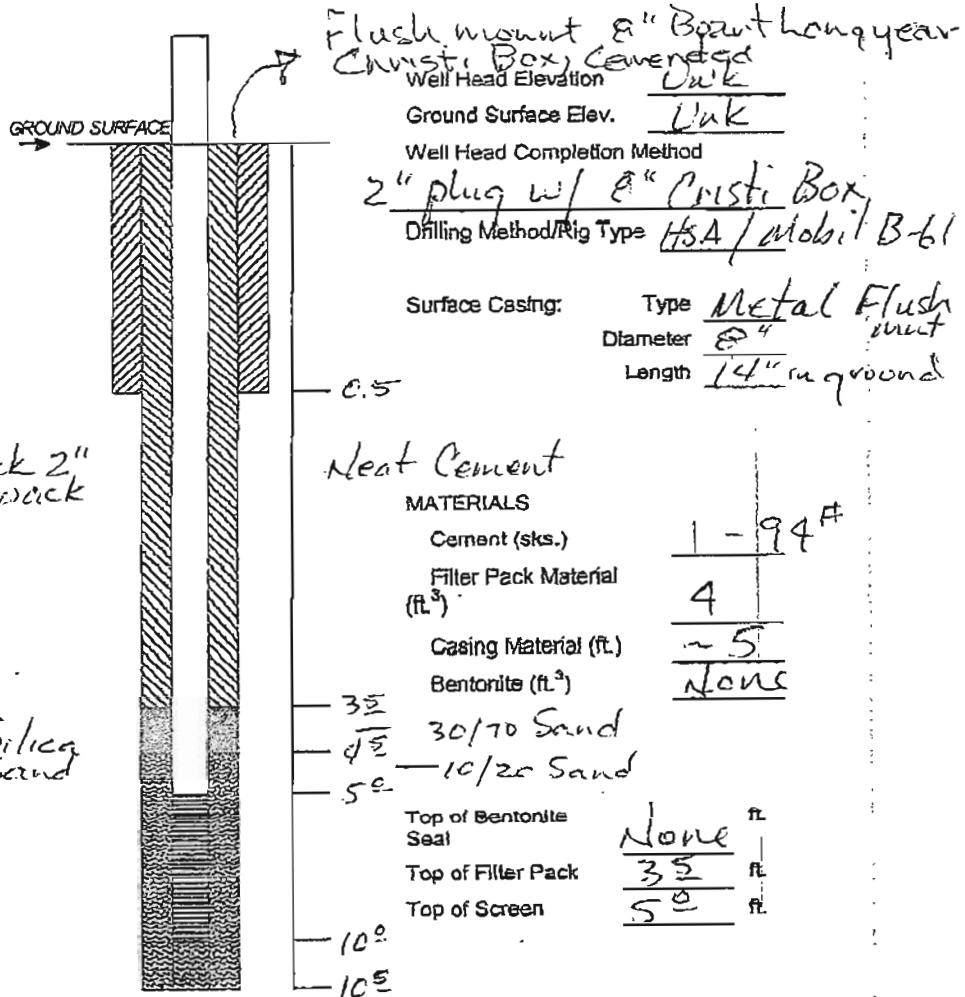
Neat Cement

Description of Potential Problems With Well:

None.

Development Technique

Pump & Surge.



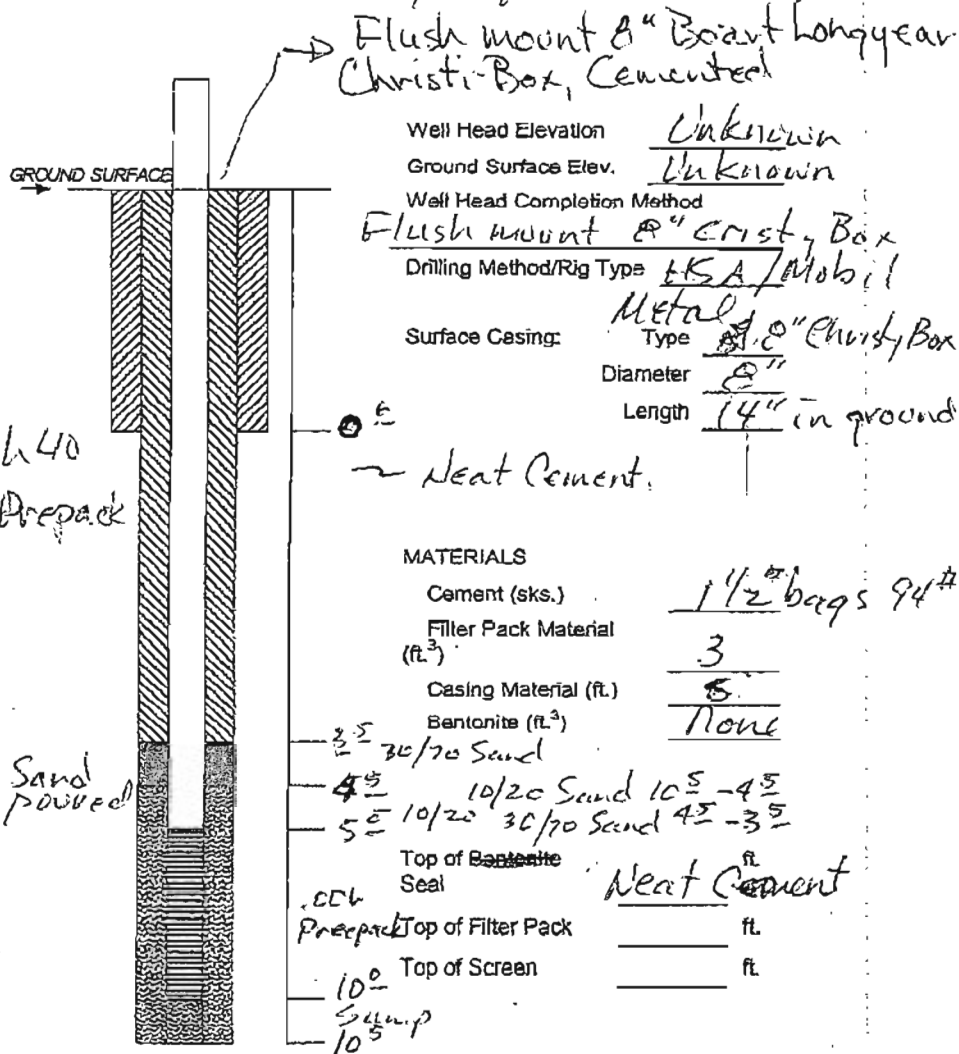
WELL COMPLETION RECORD

JOB NO.: 112647 02 WELL NO.: ICOMW03 HYDROGEOLOGIST: R. Schweser
 CLIENT: Bristol DRILLER: R. Roberson
 WELL LOCATION: MCC AREA NE Cape DATE/TIME: 7/28/09 1430
ISCO

DETAILS OF CONSTRUCTION

Date Completed 7/28/09
 Borehole Diameter (in.) 8 1/4
 Type and Size of Casing (in.) 2" PVC sch 40
 Type and Size of Screen (in.) 2" PVC, cag Prepack
 Screen Perforation Diameter (in.) .006
 Screen Length (ft.) 5
 Centralizer Depths (ft.) NA
 Completion Technique
 1. Type of Filter Pack and Placement Method
10/20 Sand & 30/70 Sand poured
 2. Type of Bentonite and Placement Method
N/A
 3. Type of Grout Mixture and Placement Method
Neat Cement Poured
 Description of Potential Problems With Well:
None.

Development Technique
Pump & Surge



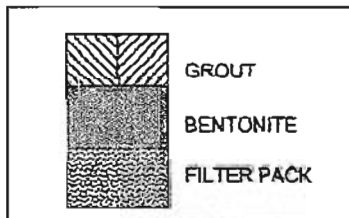
Well Head Elevation Unknown
 Ground Surface Elev. Unknown
 Well Head Completion Method Flush mount 8\" Christy Box
 Drilling Method/Rig Type HSA/Mobil
 Surface Casing: Type Metal Diameter 8\" Length 14\" in ground
Neat Cement.

MATERIALS

Cement (sks.) 1 1/2 bags 94#
 Filter Pack Material (ft.³) 3
 Casing Material (ft.) 5
 Bentonite (ft.³) None
 3\" 30/70 Sand
 4\" 10/20 Sand 10\" - 4\"
 5\" 10/20 30/70 Sand 4\" - 3\"
 Top of Bentonite Seal Neat Cement ft.
 Prepack Top of Filter Pack _____ ft.
 Top of Screen _____ ft.
 10\"
 10\"
 10\"

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

Bottom of Screen 10\" ft.
 Bottom of Hole 10\" ft.



WELL COMPLETION RECORD

JOB NO.: 112642.02 WELL NO.: ICOMW05 HYDROGEOLOGIST: R. Schlosser
 CLIENT: Bristol DRILLER: R. Roberson
 WELL LOCATION: ISCO MOC AREA DATE/TIME: 7/29/09 1430

DETAILS OF CONSTRUCTION

Date Completed 7/29/09
 Borehole Diameter (in.) 8 7/4
 Type and Size of Casing (in.) PVC 2"
 Type and Size of Screen (in.) Prepack 2" w/ 3" crepack
 Screen Perforation Diameter (in.) .006
 Screen Length (ft.) 5'
 Centralizer Depths (ft.) N/A
 Completion Technique

1. Type of Filter Pack and Placement Method

10/20 Silica Sand and 30/70 Silica Sand poured

2. Type of Bentonite and Placement Method

None

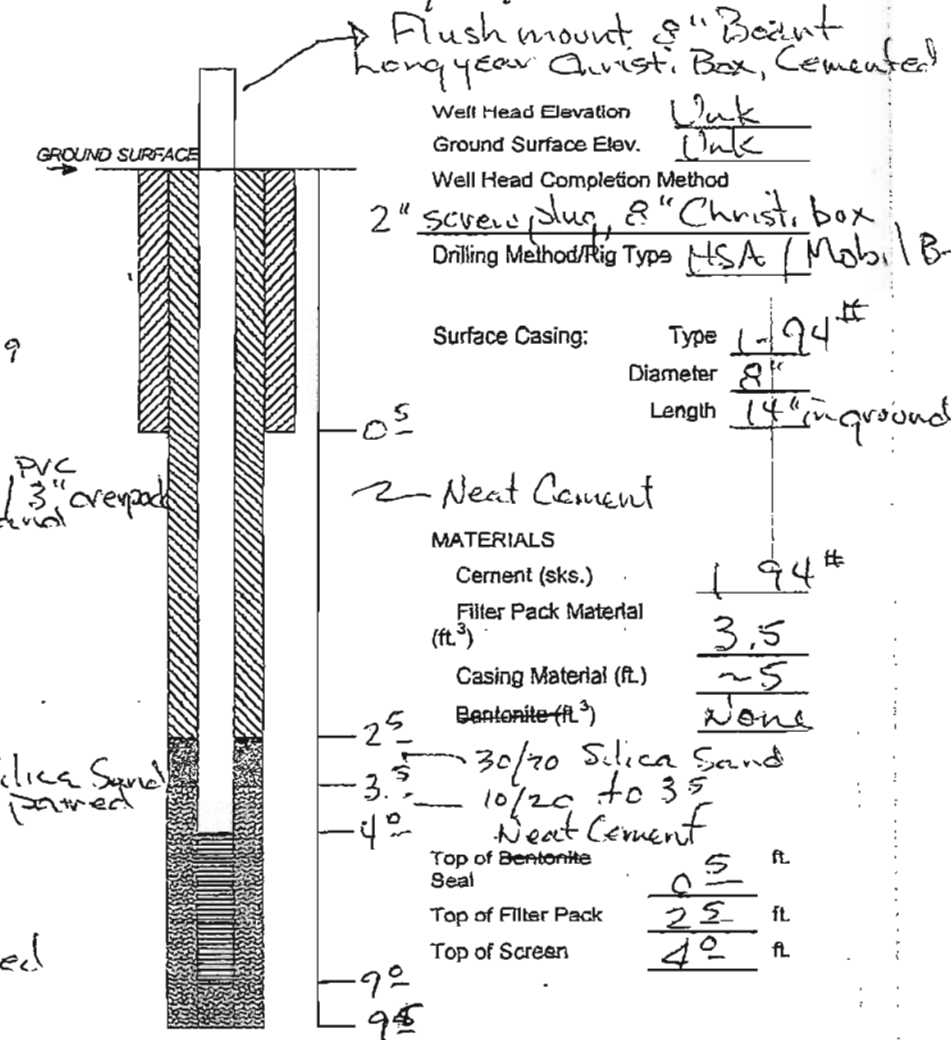
3. Type of Grout Mixture and Placement Method

Neat Cement - Poured

Description of Potential Problems With Well:

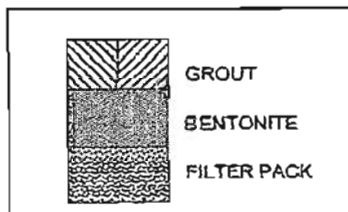
None

Development Technique



NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

Bottom of Screen 9.0 ft.
 Bottom of Hole 9.5 ft.





Date 7-29-09
M T ~~W~~ TH F S S

Project Bristol Environmental - St. Lawrence Isl.

Weather Rain SS
Activities & Progress Drill & set Mon wall # Ice-mus with 4 1/4 H.S. augers
with 2" 5 split spoon sampling

Narrative: 6:30 am to 7:00 Safety meeting
7:00 to 12:00 Cement belowgrd. pre cover - hl #100 mw
drill hl #100-mw5 to 9.0
12:00 to 12:30 Lunch/NC
12:30 to 5:00 pm Install Man Well @ 9' silica 10/30
sand to 3.5, fine sand 30/70 mix to 2.5' cement to .5'
Install belowgrd. pre cover - decan

() Expendables*

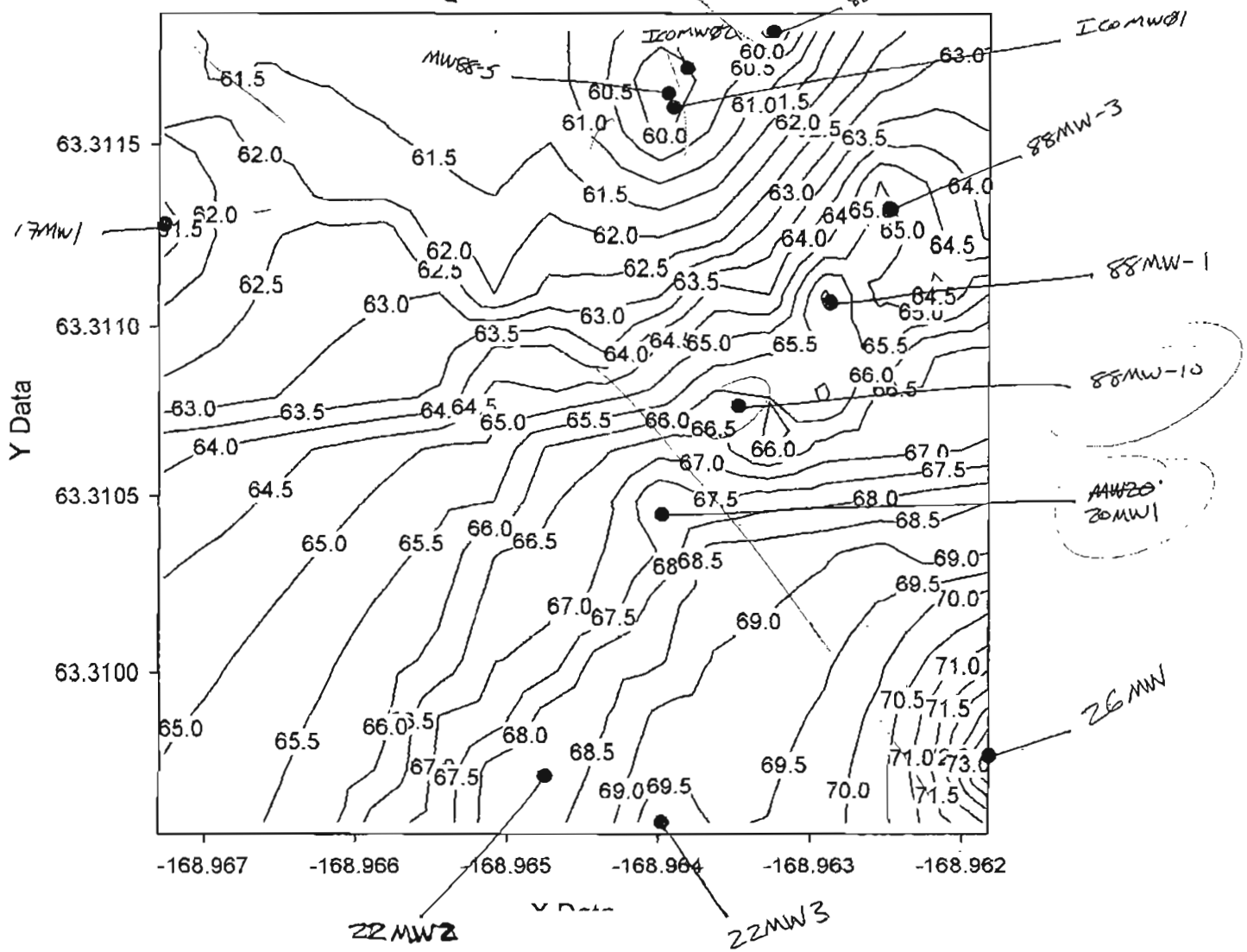
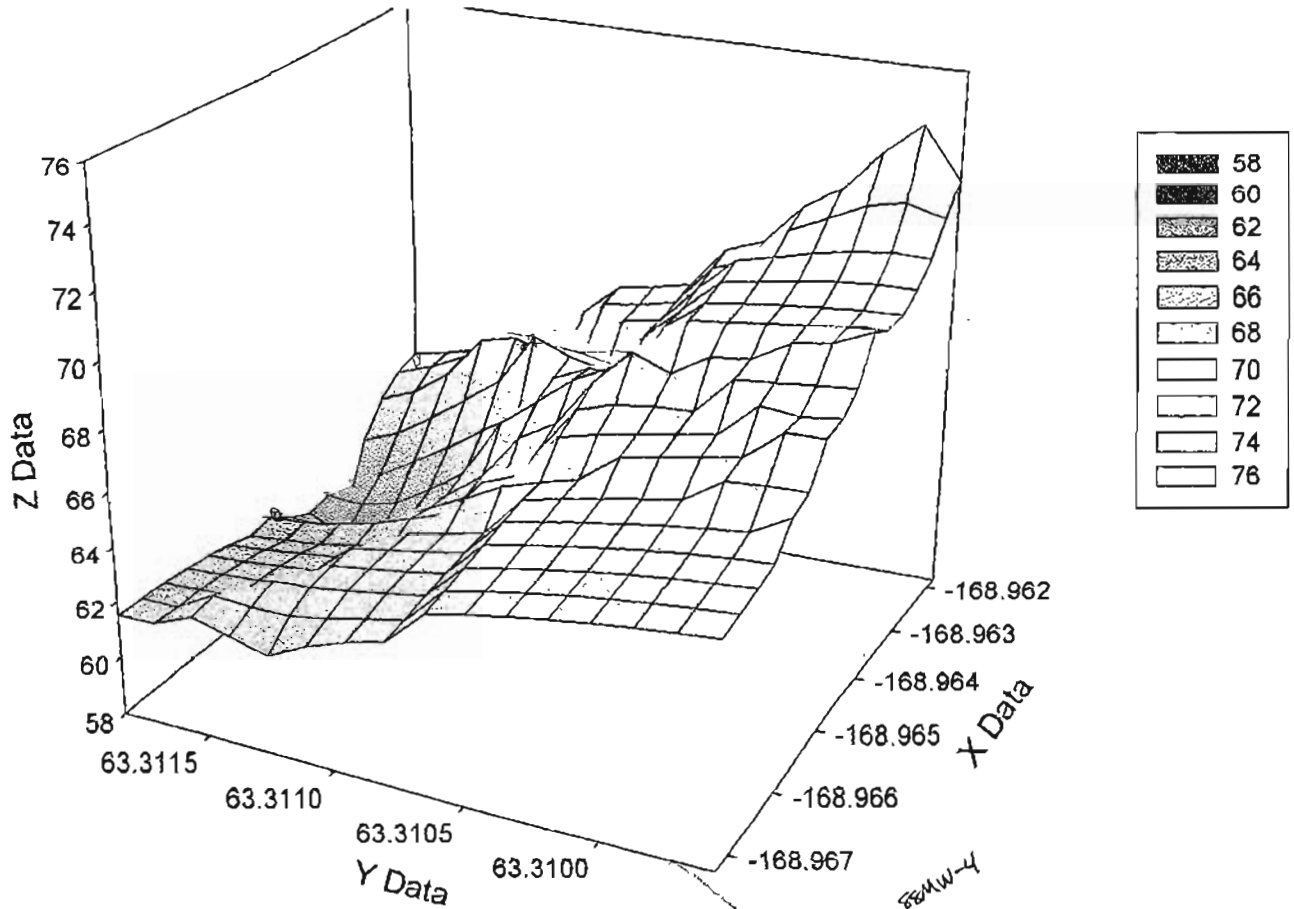
24095 94/65 current

Materials Used: 2 ea 5'x2' pvc. core slot screen prepuk, 1 ea 10'x2' pvc. riser
1 ea. bottom pvc cap, 1 ea top locking cap 2", 3 bgs, 10/20 silica sand

Recap:

[illegible]Driller Kandy Koberson**Client/Rep**

* Explained in Narrative



DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 036
Date or Time Period: Thursday July 30th, 2009
Client: USACE, Alaska District

Weather Conditions: Rain and wind in the morning, becoming mostly cloudy and relatively calm in the afternoon.

Temp 7:00 am: 48°F

Temp 5:00 pm: 51°F

Morning winds were strong, steady at 18 mph with gusts to 30 mph gusts out of the southwest. South winds in the afternoon 0-10 mph.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

PID arrived to the site today and will be incorporated at the excavation.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	1
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC	AK102/103, AK101, EPA8260B, EPA9060	2	5
DRO - Water	AK102	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒
Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐
Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒
Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒
Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐
Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐
Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐
Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐
Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐
Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐
Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Increase your visibility in bad weather. Keep headlights on and windows clean. Be aware of traffic at the landfill. Be aware of the strong winds. Have one door open at a time in the trucks. Park with the nose of the vehicle pointed into the wind.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none">1. The start of the shift for Bristol was 0630 hrs.2. Landfill drum removal excavation continued. Nineteen drums were removed from the landfill. 7 lead-acid batteries were discovered as well. More cleaned drums were reintroduced to the landfill.3. Drum cleaning and pumping operations continued at the HWAP.4. Landfill capping continued in the landfill on the northwest side of the roadway and in the Northeastern anomalies.5. One monitoring well was installed (ICOMW06) and another (ICOMW07) was begun. Two soil samples were collected. Well development of ICOMW03 and ICOMW04 was begun.6. A flight operated by Bering Air brought crew members and supplies. Two people arrived and one person left the site. 29 people were on-site this day.7. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.75	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	Down
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.5	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	189.25	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood	1	1 Day	Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	2				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Miscellaneous supplies arrived on a Bering Air flight this afternoon, including PPE, tools, food, and cleaning supplies.

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	0	431	431
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	372	372
Monitor Wells Drilled	1	5	6
Injection Wells Drilled			
Soil Borings Installed	2	9	11
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	19	125	144
Soil Removed	2 tons	72 tons	74 tons
Used Oil Recovered	50 gallons	500 Gallons	550 gallons
Oily Sludge Recovered	50 gallons	350 gallons	400 gallons
PCB Lighting Ballasts Discovered	0	11	11
Batteries Discovered	7	43	50


Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

The PID arrived on a Bering Air flight this afternoon.

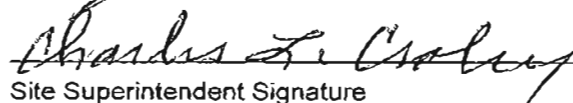
Lance Peuce (AECOM) and Kevin Fitzgerald (Fairweather medic) arrived on the Bering Air flight this day. Jessica Cheatwood (Fairweather medic) departed the site.

Comments: Photo 1, looking south, shows an excavator and material stockpile at the landfill. Photo 2, facing northeast, shows a bulldozer spreading material for the landfill cap.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

7/31/2009
Date


Site Superintendent Signature

7-31-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

The day started off very windy and rainy. Walking conditions were quite slippery and there was a high potential for flying debris. A 55-gallon drum at the ISCO site was almost blown into a crew member. Unofficially, wind gusts were as high as 60 mph.

There was a lot of equipment working in a small area today. Crew did a good job of staying aware of their surroundings and avoiding collisions. The excavator loading cover material walked off its track, but it was repaired quickly.

Observed well installation activities at the ISCO site. There was a significant sheen where the split spoon was being opened for sample collection. Some samples are so saturated with product that any soil dropped on the wet ground creates an impressive sheen. Crew was going to clean the area up once sampling was completed.


QAR Signature

31 July 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

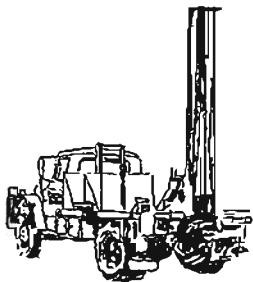
In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Thurs
7-30-09

Conducted By: Bill Croley

Subjects: 1) Low Visibility in inclement weather:
2) Be sure to do equipment inspections.
3) make sure you have visibility - floor glass,
4) working wipers, fog from windows, working
5) wipers, working lights so others can see you!
6) in complex.

Printed Name	Signature	Company
Carl D. Calagan	<i>Carl D. Calagan</i>	BERS
George Mack	<i>George Mack</i>	BERS
JACK WILLIS	<i>JACK WILLIS</i>	Bristol
Allen Dennis	<i>Allen Dennis</i>	BERS
EUGENE TOUCH	<i>EUGENE TOUCH</i>	BERS
Michael Pele	<i>Michael Pele</i>	BERS
Michael Gallegos	<i>Michael Gallegos</i>	BERS
Bob Schlosser	<i>Bob Schlosser</i>	ABC
Russell Jones	<i>Russell Jones</i>	BERS
Sammy McBrine	<i>Sammy McBrine</i>	BERS
Robert Nelson	<i>Robert Nelson</i>	Global
Eric Bunkil	<i>Eric Bunkil</i>	BERS
Johnny Willis	<i>Johnny Willis</i>	BERS
Maze Thompson	<i>Maze Thompson</i>	BERS
David O'Connor	<i>David O'Connor</i>	Doughi Drilling
Scott Patterson	<i>Scott Patterson</i>	Adcon
Sebb Adams	<i>Sebb Adams</i>	Bers
Darius Byers	<i>Darius Byers</i>	BERS
Bruce Schreuer	<i>Bruce Schreuer</i>	BERS
Randy Robinson	<i>Randy Robinson</i>	Doughi Drilling
Mark Heston	<i>Mark Heston</i>	Wecor
Jessica Chastrow	<i>Jessica Chastrow</i>	FWK
Valerie Pomeroy	<i>Valerie Pomeroy</i>	WWE
KIMMY BLAKE	<i>KIMMY BLAKE</i>	BERS



Denali Drilling Daily Work Report

Time Sheet

W.O. # 9850

Date 7-30-09
M T W T F S S

Shift Dys.

Project Bristol Environmental - ST. Lawrence Island

Weather Rain wind 25 mph.

Activities & Progress Drill + Install Mon wells with 4 1/4" H.S. augers with 2.5 ID spt's

Narrative:

6:30 to 7:00 Safety meeting

7:00 to 12:00 Drill + set Mon well #100-mw6 to 9'0", silica sand to 3'5" fine sand 30/70 mix to 2'5"

12:00 to 12:30 Lunch/NC

12:30 to 2:30 cement + install below grd pro-ann 8"

move set up + drill Mon. well 100-mw7 to 10'

install mon. well, silica sand 10/20 to 4'5", fine sand 30/70 mix to 3'5", site clean up + secure site.

6:30 to 7:30 dinner/NC

after - 7:30 to 8:00 pm Unload + store sak grade cement 15 ea 60 lb. bgs.

Checklist

☒ ACT/Progress

☐ Rental Equip.

☐ Company Equip.

☒ Instructions Given/Received

☐ Tests/Inspection

☒ Weather/Effect

☐ Delays/Cause

☐ Visitors

☐ Photos

☒ Safety Meetings

☐ Complaints

☐ Accidents

☐ Equip. Breakdown

☒ Footage Drilled*

☒ Sample Type*

☒ Expendables*

2 bgs 94 lbs cement pre-pak

Materials Used: 2 ea. 5' x 2" pvc. 006 slot screen, 2 ea. 10' x 2" pvc. riser, 2 ea. bottom

pvc. caps, 2 ea top locking caps, 6 bgs 10/20 silica sand, 1 bgs 30/70 fine sand 94 lbs

Recap:

Holes Drilled	#1	#2	#3	mww6 #4	mww7 #5	#6	Daily: Total	
Depth				9.0	10.0		19.0	
Samples Taken				3	4		7	
Personnel	Mob Hrs	Travel Hrs	Drill/Work Hrs	Maint. Hrs	DeMob Hrs	Other* Hrs	Other* Hrs	Extra Work* Hrs
R. Roberson			11.5			.50		
D. Cramer			11.5			.50		
Equipment								
Mobil B-61/Trk								
								T. 12 hrs

Driller Randy Roberson

Client/Rep [Signature]

* Explained in Narrative

Borehole Log (Shallow)

Site: ISCO MOC AREA	LocID: ICOMW06	
Project Name: NECLADE ISCO MOC AREA	Project Number: 112642-20	Sheet: 1 of 1
Drilling Equipment: MOBIL B-61	Date/Time Started: 7/30/09 / 0830	Total Depth (feet): 9.5
Drilling Contractor: Denali Drilling	Date/Time Finished: 7/30/09 / 1200	Depth to Water (feet): -
Driller: R. Roberson		Water Added (gal): none
Drilling Method: H&A	Borehole Diameter (in): 8 1/8"	Ambient PID (ppm): 0.2
Drilling Fluid: None	Logged By: R. Schlosser	Checked By: -

Depth (feet)	USCS Lithologic Description	USCS Type	Samples				Sample Time	Remarks (sample details, odor, etc.)
			PID (ppm) Spoon	Number	Recovered Length (feet)	Blow Count		
0	Silty gravel, occ occ	Fill						
	sdly Fill, gravels to	GM						
	4" dense, moist,							
	wet @ 3" & 4"	GM						
	Saturated from							
	surface runoff							
5	@ 3" native silty							
	gravel 1-3" gravel clst							
	in mdgy sandy silt	Peat						
	matrix							
	48- Peat, m-dk brn, v							
	silty, moist-damp, uniform							
	v strong diesel odor.							
	@ 6-7" Saturated, becoming							
10	silty w/depth (moist 7-8)							
	@ 8" Clayey Silt, m-dk							
	gy, ang contact w							
	Peat, partially frozen							
	TD @ 9.5							
15	Set well @ 9.5-11.9 @ 14"							

Comp 9.5-9.5; 10/20 Sand 9.5-11.9 30/70 Sand to 2.5' great to 0.5'

USCS NAME: Consistency/Density (predominantly fine: very soft (n=0-1), soft (n=2-4), medium stiff (n=5-6), stiff (n=9-15), very stiff (n=16-30), hard (n=31-41)) (predominantly coarse: very loose (n=0-4), loose (n=5-10), medium dense (n=11-30), dense (n=31-60), very dense (n=61-75)) Moisture (dry, moist, wet); Color; Gradation (relative percentages of soil components-no modifiers); Plasticity/Cohesiveness (predominantly fine: nonplastic (liquid limit < 25), slightly plastic (liquid limit 25-40), low plasticity (liquid limit 40-60), medium plasticity (liquid limit 60-80), high plasticity (liquid limit > 80)) (predominantly coarse: cohesive, cohesionless); Stratification/Structure (blocky, massive, lensed, etc.) (contacts: sharp, gradational); Bedding: horizontal, inclined; Cementation (none, weak, moderate, strong); Other Descriptive Elements; Geologic Origin
 SP = Sample Number; SP = Spoon Driven; SD = Sample Depth; ST = Sample Time; A = Analysis
 BZ = Breathing Zone; BG = Background; BH = Borehole; CB = Cuttings Bin

WELL COMPLETION RECORD

JOB NO.: 112642.02 WELL NO. ICOMW06 HYDROGEOLOGIST: R. Schlosser
 CLIENT: Bristol DRILLER: R. Roberson
 WELL LOCATION: ISCO MOC AREA DATE/TIME: 7/30/09 1100
N.E. CAPE

DETAILS OF CONSTRUCTION

Date Completed 7/30/09
 Borehole Diameter (in.) 8 1/4
 Type and Size of Casing (in.) 2" Sch 40 PVC
 Type and Size of Screen (in.) 2" Sch 40 PVC w/
 Screen Perforation 3" overpack 10/20 Sand
 Diameter (in.) 1.06
 Screen Length (ft.) 52
 Centralizer Depths (ft.) None
 Completion Technique

1. Type of Filter Pack and Placement Method

10/20 Sand & 30/70 Sand poured

2. Type of Bentonite and Placement Method

None used

3. Type of Grout Mixture and Placement Method

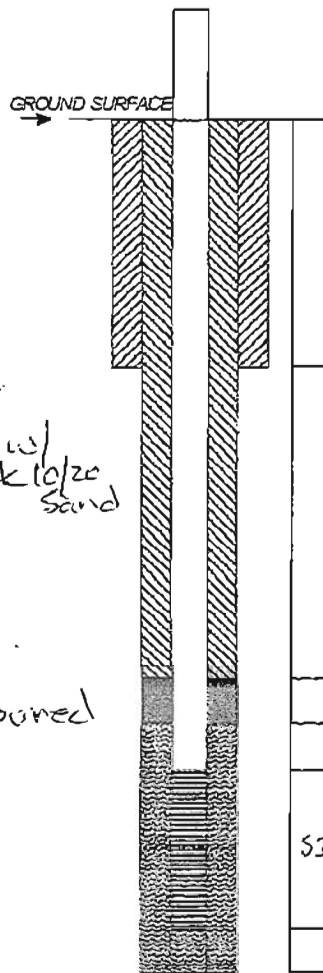
Neat Cement poured

Description of Potential Problems With Well:

None

Development Technique

Surge & Pump



Well Head Elevation Unk

Ground Surface Elev. Unk

Well Head Completion Method

Screw cap w/ 8" Christ box flush
Drilling Method/Rig Type H&A / Mobil 61

Surface Casing: Type Metal

Diameter 8"

Length 14'

0' Top of Neat Cement

MATERIALS

Cement (sks.) 1 sk

Filler Pack Material (ft³) 3

Casing Material (ft.) 5'

Bentonite (ft³) None

25' Top of 30/70 Sand

35' Top of 10/20 Sand

40'

Top of Bentonite Seal None ft.

SI Top of Filter Pack 25' ft.

Top of Screen 40' ft.

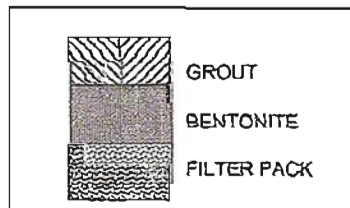
90'

95' Slump

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

Bottom of Screen 40' ft.

Bottom of Hole 95' ft.



Borehole Log (Shallow)

Site: ISCO MOC AREA	LocID: ISCO N.E. CAPE, MOC AREA (ICMWO7)	
Project Name: NE CAPE ISCO	Project Number: 112642.02	Sheet: 1 of 1
Drilling Equipment: Mobil B6i	Date/Time Started: 9/30/09 1515	Total Depth (feet): 9⁵
Drilling Contractor: Denali Drilling	Date/Time Finished: 9/30/09 1730	Depth to Water (feet): unknown
Driller: E. Roberson		Water Added (gal): None
Drilling Method: HSA	Borehole Diameter (in): 8/4	Ambient PID (ppm): 0.0
Drilling Fluid: None	Logged By: R. Schüsser	Checked By: -

Depth (feet)	USCS Lithologic Description	USCS Type	Samples				Sample Time	Remarks (sample details, odor, etc.)
			PID (ppm) Spoon	Number	Recovered Length (feet)	Blow Count		
0	Fill GM, silty gravel, gravel clasts, 1/2"-3" w/ sand & silt matrix, mgy @ 2 ¹ / ₂ clayey silt, mgy, cold tight, 3 ² - peat, m-dk brn, coarse to fine loc, silty, occ pebbles, mod pet odor, ice crystals visible in matrix, blow cuts 4 ² -6 ⁵ show frozen peat, becoming more silty w/ depth, to intbd peats and silts from 5 ² -6 ⁵ frozen to 7 ⁵ @ 8 ⁵ wet saturated peat, @ 9 ⁵ silt ML m-dk gy, w/occ gravel 1" x 3" water in augers to 6' after drilling hole. Set well - Brn of sunp loc ⁵	Fill GM	2 ²		2 ⁵	2		Headspace Depth PID PID 5 ⁵ -6 ⁵ 650 50 6 ⁵ -7 ⁵ 1150 229 7 ⁵ -8 ⁵ 240 114
2		ML	3 ⁵		2 ⁵	4		
3					4 ⁵	6		
4					Rec 12	5	5 ⁵ -6 ⁵	
5		Peat			6 ⁵	5	1600	
6					Lost 7 ⁵	7	65.75	
7					8 ⁵	3	1615	
8		Peat	8 ⁵ wet			1	7 ⁵ -8 ⁵	
9		ML	9 ⁵		10 ⁰	2	1620	
10						1		
11						3		
12								
13								
14								
15								

USCS NAME: Consistency/Density [predominantly fine: very soft (n=0-1), soft (n=2-4), medium stiff (n=5-8), stiff (n=9-15), very stiff (n=16-30), hard (n=31-41)] [predominantly coarse: very loose (n=0-4), loose (n=5-10), medium dense (n=11-30), dense (n=31-50), very dense (n=51-64)]; Moisture (dry, moist, wet); Color; Gradation (relative percentages of soil components-no modifiers); Plasticity/Cohesiveness [predominantly fine: nonplastic (liquid limit < 25), slightly plastic (liquid limit 25-49), low plasticity (liquid limit 50-69), medium plasticity (liquid limit 70-99), high plasticity (liquid limit > 100)] [predominantly coarse: cohesive, cohesionless]; Stratification/Structure (blocky, massive, lensed, etc.) (contacts: sharp, gradational) (bedding: horizontal, inclined); Cementation (none, weak, moderate, strong); Other Descriptive Elements; Geologic Origin

SP = Sample Number; EP = Spoon Driven; SD = Sample Depth; ST = Sample Time; A = Analysis

BZ = Breaching Zone; BG = Background; BH = Borehole; CS = Cuttings Bin





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 037
Date or Time Period: Friday July 31st, 2009
Client: USACE, Alaska District

Weather Conditions: Cloudy throughout the the day.

Temp 7:00 am: 42°F

Temp 5:00 pm: 48°F

Winds 0-10 mph out of the north, shifting to east winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No
Notes:

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

PID arrived to the site today and will be incorporated at the excavation.

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	1
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC	AK102/103, AK101, EPA8260B, EPA9060	1	6
DRO – Water	AK102	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Use proper lifting techniques when handling liner at the HWAP and when lifting any other heavy objects. Stay Clean: Wash hands and use the wash facilities.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. Eleven drums were removed from the landfill. 7 lead-acid batteries were discovered as well. More cleaned drums were reintroduced to the landfill. Drum cleaning and pumping operations continued at the HWAP. Another containment area was constructed and water from the current, clean containment area is being run through another water scrubber and held in the new containment. Landfill capping continued at the landfill on the northwest side of the roadway in the large northwestern anomaly. Two monitoring wells were completed (ICOMW07 and ICOMW08). One soil sample was collected. Well development continued. 28 people were on site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	Down
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.5	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	189.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

QAR inquired about the landfill capping goal. QAR asked if the entire hill was going to be covered or if we were only covering areas where we excavated and where trash actually resided. QAR, Valerie Palmer, was concerned that the volumes of borrow material in the contract modification in progress would need to be adjusted depending on what our capping procedure would be. QAR visited with Site Superintendent, Chuck Croley, to discuss the capping procedure. Ultimately, the conclusion was reached that the entire hill would be covered with fill (capped).

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	0	431	431
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	372	372
Monitor Wells Drilled	2	6	8
Injection Wells Drilled			
Soil Borings Installed	1	11	12
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	11	144	155
Soil Removed	10 tons	74 tons	84 tons
Used Oil Recovered	0 gallons	550 Gallons	550 gallons
Oily Sludge Recovered	50 gallons	400 gallons	450 gallons
PCB Lighting Ballasts Discovered	0	11	11
Oily Debris Drums	2 x 85 gal drums	0	2 x 85g drums
	2 x 55 gal drums		2 x 55g drums
Scrubber Pillows	3 x 55 gal drums	0	3 drums
Batteries Discovered	7	50	57

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Comments: Photo 1, looking northwest, shows an excavator and bulldozer compacting trash in the landfill prior to backfill. Grade stakes are visible in Photo 1. Photo 2, facing southeast, shows an excavated area with grade stakes before backfill is added.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

8/1/2009
Date


Site Superintendent Signature

8-1-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

The cap covering the anomaly area south of the road was re-inspected. While some additional work has been done in the area there are still drums exposed.

Noted that the only areas being capped were where excavation activities have occurred. There is also only approximately 24,000 CY of cap material stockpiled at the landfill, well short of the 38,000 CY designated in the design. Asked CQCSM what the current plan was for the cap – his response was that he did not know. Asked the Site Manager what the plan was – his response was that, until told otherwise, they were only capping the anomaly areas. He saw a potential cost savings for both Bristol and the Government. This information was relayed back to the COR and other USACE PDT members. The COR and Bristol PM discussed the issue and it was decided that the entire landfill will be capped, just like the contract calls for.

A PID was available for use (and used) during drum removal activities.


QAR Signature

01 Aug 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Friday
7-31-09

Conducted By: Chuck Croley

- Subjects:
- 1) Installing liner; use proper lifting techniques.
 - 2) _____
 - 3) Cross contamination
 - 4) _____
 - 5) Fixes at D-Con Area
 - 6) _____

Printed Name	Signature	Company
Allen Papp's	<i>Allen Papp's</i>	BERS
Carl D. Calagan	<i>Carl D. Calagan</i>	BERS
George Marx	<i>George Marx</i>	BERS
Lance C. Frouss	<i>Lance C. Frouss</i>	AECOM
MARK NEASTON	<i>Mark Neaston</i>	AECOM
Scott Proctor	<i>Scott Proctor</i>	ABR
Russell James	<i>Russell James</i>	BERS
Jack Willis	<i>Jack Willis</i>	BERS
Michael Gallegos	<i>Michael Gallegos</i>	BERS
Eric Burnhill	<i>Eric Burnhill</i>	BERS
Bob Schuster	<i>Bob Schuster</i>	BE
Michael Tackie	<i>Michael Tackie</i>	BERS
K. Fitzgibbon	<i>K. Fitzgibbon</i>	FWK
EUGENE TACKIE	<i>Eugene Tackie</i>	BERS
Randy Robson	<i>Randy Robson</i>	Dental Drilling
Maze Thompson	<i>Maze Thompson</i>	BERS
David L. Warner	<i>David L. Warner</i>	Dental Drilling
Johnny Willis	<i>Johnny Willis</i>	BERS
Valerie Palmer	<i>Valerie Palmer</i>	WAGE
Bruce Schmeier	<i>Bruce Schmeier</i>	BERS
Sean M. McBride	<i>Sean M. McBride</i>	BERS
Douglas Byers	<i>Douglas Byers</i>	BERS
Robert Nelson	<i>Robert Nelson</i>	BERS
Randy Black	<i>Randy Black</i>	BERS



07.31.2009 12:54



07.31.2009 13:05

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 038
Date or Time Period: Saturday August 1st, 2009
Client: USACE, Alaska District

Weather Conditions: Cloudy throughout the the day.

Temp 7:00 am: 42°F

Temp 5:00 pm: 47°F

Winds 5-20 miles per hour. South winds in the morning and north winds in the afternoon..

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	1
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	3	9
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	6	6
DRO – Water	AK102	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐
 Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐
 Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐
 Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒
 Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐
 Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐
 Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐
 Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐
 Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐
 Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐
 Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

The traffic pattern will be changing at the landfill, so be aware of those changes. The winds are picking up again, so keep that in mind. Be careful when opening doors.
 Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. Nine drums were removed from the landfill. Three lead-acid batteries were discovered and more cleaned drums were reintroduced to the landfill. Drum cleaning and pumping operations continued at the HWAP. Landfill capping continued at the landfill on the northwest side of the roadway in the large northwestern anomaly. One monitoring well was completed (ICOMW09). One soil sample was collected from the corresponding borehole. Well development continued. 28 people were on site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	Down
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.5	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day

			DeWalt electric compressor		1 Day
					1 Day
			DeWalt Generator	Environ #1	
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	189.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

QAR was concerned about the drill cuttings produced at the ISCO site. Site Superintendent, Chuck Croley, decided that the soil cuttings will be disposed of in 55-gallon drums. Drilling waste drums were/will be taken to the HWAP, weighed, tracked, and stored for transportation and disposal off-site.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒


Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	0	431	431
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	372	372
Monitor Wells Drilled	1	8	9
Injection Wells Drilled			
Soil Borings Installed	1	12	13
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	9	155	164
Soil Removed	3 tons	84 tons	87 tons
Used Oil Recovered	10 gallons	550 Gallons	560 gallons
Oily Sludge Recovered	20 gallons	450 gallons	470 gallons
PCB Lighting Ballasts Discovered	0	11	11
Oily Debris Drums	2 x 85 gal drums	0	2 x 85g drums
	2 x 55 gal drums		2 x 55g drums
Scrubber Pillows	3 x 55 gal drums	0	3 drums
Batteries Discovered	2	57	59

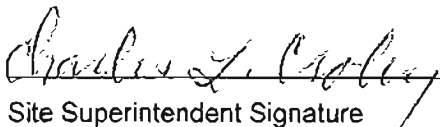
Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Comments: Photo 1, looking southeast, shows an excavator hauling POL contaminated soil to an open-top Conex. Grade stakes are visible in Photo 1. Photo 2, facing northeast, shows the landfill excavation in progress.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

8/2/2009
Date


Site Superintendent Signature

8-2-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

The Site Manager directed that drums containing drill cuttings from the ISCO site were to be added to the landfill POL soil bins and the bins would then be re-weighed. The CQCSM was asked how the tonnage for landfill soil vs. ISCO cuttings was going to be tracked once they were combined; he did not know. The POL soil included in the contract is specifically designated for soil removed from the landfill, and therefore drill cuttings should not be included in that total. The CQCSM later said the drill cuttings would be left in their 55-gallon drums and weighed separately.

Observed waste characterization sampling for the POL soil from the landfill. The sampler was nicely assisted by crew members, allowing the task to be performed safely.


QAR Signature

02 Aug 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Saturday
8-1-09

Conducted By: Chuck Cooley

Subjects:

- 1) Another change in traffic patterns on
- 2) Landfill - Pay attention to locations of co-
- 3) workers.
- 4) Winds building square site; especially new
- 5) containment line.
- 6) Keep up communications about needs; so there is
no rush for responses. Maintain steady work

Printed Name

Signature

Company

Printed Name	Signature	Company
George Moxe		BERS
Carl D. Colgan		BERS
Mace Thompson		"
Donal D. Cronin		Donal D. Cronin
Allen Dennis		BERS
Douglas Byers		BERS
Michael Gallegos		BERS
Russell Jones		BERS
Eric Bernhill		BERS
Bob Schloesser		ACC
Jack Willis		Bristol
Randy Roberson		Donal D. Cronin
EUGENE TUCKER		BERS
Scott Pinner		BERS
Rob Adkins		BERS
Michael Torie		BERS
Valene Palmer		WACE
David Fitzgerald		FWX
Bruce Schneider		BERS
KANDY SLACK		BERS
Sean M. McBride		BERS
Johnny Willis		BERS
Lance Weiss		ACOM
Robert Nelson		ACOM



08.01.2009 10:40



08.01.2009 11:40

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 039
Date or Time Period: Sunday August 2nd, 2009
Client: USACE, Alaska District

Weather Conditions: Partly Cloudy, clearing in the afternoon

Temp 7:00 am: 42°F

Temp 5:00 pm: 45°F

Winds 0-10 miles per hour. East winds in the morning and south winds in the afternoon..

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	1
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	1	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	6
DRO – Water	AK102	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐

Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Chuck read a couple of article relating to common sense on the work site and close calls. Close calls can indicate a problem that should be addressed before a more serious accident occurs. The QAR added that fatigue can also be an important factor in accidents and accident prevention. Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation continued. Ten drums were removed from the landfill. Five lead-acid batteries were discovered and more cleaned drums were reintroduced to the landfill. Drum cleaning and pumping operations continued at the HWAP. Landfill capping continued at the landfill. One injection well was completed (ICOIW01). One soil sample was collected from the corresponding borehole. Well development continued. AECOM has finished their Monitor Well and Injection Well installation phase of work. Drillers will be leaving site on Monday, weather permitting. The drum removal crew skid steer had a blown Hydraulic hose. A small amount of hydraulic fluid (≥ 1 gallon) was leaked. Fluids were cleaned up with absorbents and a small amount of soil was removed and added to the soil that is contaminated from a previous hydraulic spill. The skid steer was removed from the tundra with the 322B excavator and then was moved to the shop area with the 988B loader. 28 people were on site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.5	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.25	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	Down
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.25	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	Down
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	189.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	0	431	431
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	372	372
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	1	0	1
Soil Borings Installed	1	13	14
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	10	164	174
Soil Removed	1 ton	87 tons	88 tons
Used Oil Recovered	40 gallons	560 gallons	600 gallons
Oily Sludge Recovered	0 gallons	470 gallons	470 gallons
PCB Lighting Ballasts Discovered	0	11	11
Oily Debris Drums	2 x 85 gal drums 2 x 55 gal drums	0	2 x 85g drums 2 x 55g drums
Antifreeze	Approx. 1 gallon	0	1 gallon
Batteries Discovered	5	59	64

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

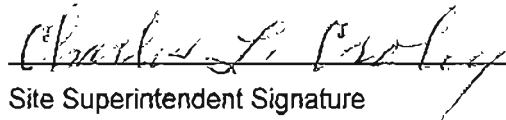
Soil headspace samples were analyzed using the PID from the area near the borrow source where hydraulic fluid was leaked onto the ground. All samples registered 0 parts per million.

Comments: Photo 1, looking east, shows the landfill excavation progress on the western/northwestern slope. Grade stakes are visible in Photo 1. Photo 2, facing west, shows an area of POL contaminated soil that is being over-excavated.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

8/3/2009
Date


Site Superintendent Signature

8-3-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Observed spill response procedures when the skid steer broke a hydraulic line. Crew responded quickly. Rigging used to lift and transport the skid steer was appropriate and in good shape. The broken hydraulic line was most likely due to not routinely cleaning the mud out of the tracks; the mechanic thinks it should be an easy, though time consuming, repair. In the mean time there is another skid steer available to use at the landfill.


QAR Signature

03 Aug 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Sunday
8-2-09

Conducted By: Chuck Croley

Subjects: 1) Common Sense: PPE, Electrical, Staircase
From QAR: 2) materials, ladders
3) Close Calls: Report; Talk over
Fatigue is an 4) as a learning tool;
accident factor 5) _____
6) _____

Printed Name	Signature	Company
Randy Robison	Randy Robison	Denali Drilling
Carl D. Calagan	Carl D. Calagan	BERS
JACK WILLIS	JACK WILLIS	Bristol
GEORGE MACK	George Mack	BERS
EUGENE TUCKIE	Eugene Tuckie	BERS
Allen Penn's	Allen Penn's	BERS
Michael Tuckie	Michael Tuckie	BERS
Michael Gallegos	Michael Gallegos	BERS
Megan Thompson	Megan Thompson	"
Russell James	Russell James	BERS
Eric Barnhill	Eric Barnhill	BERS
Kyle Pittard	Kyle Pittard	FWX
Scott Pittard	Scott Pittard	Accom
Lance G. Piers	Lance G. Piers	Accom
Johnat Willis	Johnat Willis	BERS
David Plummer	David Plummer	Denali Drilling
Mike Henson	Mike Henson	BERS
Valerie Palm	Valerie Palm	USACE
Douglas Poyer	Douglas Poyer	BERS
Jobb Adkins	Jobb Adkins	BERS
Gene M. H. Brise	Gene M. H. Brise	BERS
Bruce Schenker	Bruce Schenker	BERS
Bob Schlosser	Bob Schlosser	AGE
Randy Black	Randy Black	BERS

Borehole Log (Shallow)

Site: 1300 PILOT AREA	LocID: ICDIW01	
Project Name: NE CAPS 1300 MOC AREA PILOT	Project Number: 112624.02	Sheet: 1 of 1
Drilling Equipment: Mobil B-61	Date/Time Started: 8/2/09 1000	Total Depth (feet): 10.5
Drilling Contractor: Denali Drilling	Date/Time Finished: 8/2/09 1430	Depth to Water (feet): ~ 9.8
Driller: R. Roberson		Water Added (gal): None
Drilling Method: HSA	Borehole Diameter (in): 8.75	Ambient PID (ppm): 0.2
Drilling Fluid: NONE	Logged By: R. Schlosser	Checked By:

Depth (feet)	USCS Lithologic Description	USCS Type	Samples				Sample Time	Remarks (sample details, odor, etc.)
			PID (ppm) Spoon	Number	Recovered Length (feet)	Blow Count		
0	Auger through fill, m-dk brn silt & sand matrix w/ 1-4" aug gravel clasts, moist from gw, water, hand picked in permeant GM (FILL), breccias .	Fill (GM)						
	Driller through fill at 5°							
5	m-dk brn - yel brn, dry, to pebbles, plasticity, silt all	50			50			
	@ 58 peat below, coarse	58			Rec 22	2		
	peat, @ 62 becoming v. silty, moist, cold @ 71	Deat			70	2		
	mg, f-dk yel brn silty sand, gravel, silt @, sl shen, sharp	71			Rec 20	3		
	contact w/ dk brn, plastic w/ abnt org, w/b fine peats to 82 becoming v. silty, at 104 abnt org & peat peat	82			90	4		
	@ 94 m-dk y silty, tm plasticity, wet, clayey, grading to 3/4-1" aug gravel clasts w/ sand and silt matrix, 65% gravel, 25% cs & gr sand 10% fines, wet (GM)	94			Rec 15	8		
10		98			105	9		
		100						
		2 TD in GM @ 105						
15								

pid 90 BID 435
 BZ - PID/BID - BKG
 strong pet odor
 pid 18 FID 70 e
 GM interlayer
 BZ - PID/FID BKG
 pid 12 FID 48
 Set 100 wire wrapped type 304
 SS screen 10°-5°
 Sump 10°-10°
 Headspace sample.
 58-70 pid 280
 Rd 1450
 7°-9° pid 28 FID 140

USCS NAME: Consistency/Density [predominantly fine: very soft (n=0-1), soft (n=2-4), medium stiff (n=5-8), stiff (n=9-15), very stiff (n=16-30), hard (n=31-49)] [predominantly coarse: very loose (n=0-4), loose (n=5-10), medium dense (n=11-20), dense (n=21-50), very dense (n=51-64)]; Moisture (dry, moist, wet); Color; Gradation (relative percentages of soil components-no modifiers); Plasticity/Cohesiveness [predominantly fine: nonplastic (shrinkage=none), slightly plastic (L=1/4-1/8), low plasticity (L=1/8-1/16), medium plasticity (L=1/32), high plasticity (L=1/64)] [predominantly coarse: cohesive, cohesionless]; Stratification/Structure (blocky, massive, lensed, etc.) (contacts: sharp, gradational) (bedding: horizontal, inclined); Cementation (none, weak, moderate, strong); Other Descriptive Elements; Geologic Origin
 S# = Sample Number; SP = Spoon Driven; SD = Sample Depth; ST = Sample Time; A = Analysis
 BZ = Breathing Zone; BG = Background; BH = Borehole; CB = Cuttings Bin

WELL COMPLETION RECORD

JOB NO.: 112642.20 WELL NO.: ICOLW01 HYDROGEOLOGIST: R. Schlosser
 CLIENT: BRISTOL DRILLER: R. ROBERSON
 WELL LOCATION: ISCO PILOT MOC DATE/TIME: 8/2/09 1330
 AREA: ST. LAWRENCE IS. W. CAPE

DETAILS OF CONSTRUCTION

Date Completed 8/2/09
 Borehole Diameter (in.) 8 1/4
 Type and Size of Casing (in.) SS Type 304 2" Flushthread
 Type and Size of Screen (in.) .010 SS Type 304 2"
 Screen Perforation Diameter (in.) .010 Wire wrap
 Screen Length (ft.) 5'
 Centralizer Depths (ft.) None
 Completion Technique

1. Type of Filter Pack and Placement Method

10/20 Silica Sand & 30/20 Silica Sand

2. Type of Bentonite and Placement Method

None used

3. Type of Grout Mixture and Placement Method

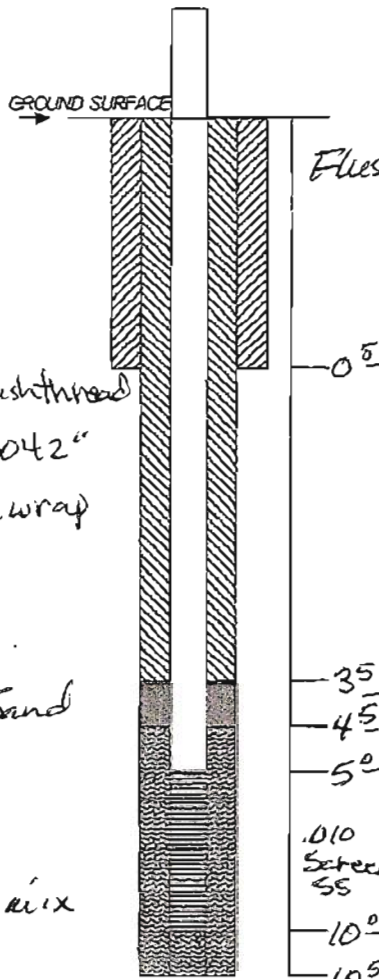
94% portland Type II w/ 6 gal H₂O mix

Description of Potential Problems With Well:

none evident

Development Technique

Surging & Pumping



Well Head Elevation ~66.45

Ground Surface Elev. ~67.00

Well Head Completion Method

Flush mount, salcrete apron ~18"

Drilling Method/Rig Type HSA/Mobil B-61

Surface Casing: Type Steel Borehole
 Diameter 8"
 Length 14'

MATERIALS

Cement (sks.) 1
 Filter Pack Material (ft.³) 35
 Casing Material (ft.) ~50
 Bentonite (ft.³) None

Top of Bentonite Seal None ft.

Top of Filter Pack 35 ft.

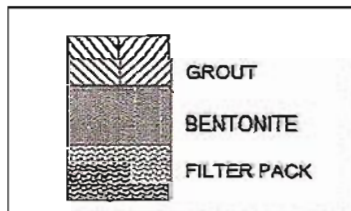
Top of Screen 50 ft.

- Sump

Bottom of Screen 100 ft.

Bottom of Hole 105 ft.

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE



WELL COMPLETION RECORD

JOB NO.: 112624.02 WELL NO. ICOMW09 HYDROGEOLOGIST: R. Schlosser
 CLIENT: BRISTOL DRILLER: R. Roberson
 WELL LOCATION: NECAPE ICOMOC AREA DATE/TIME: Start 8/1/09 1700
Completed 8/2/09 0900

DETAILS OF CONSTRUCTION

Date Completed 8/2/09
 Borehole Diameter (in.) 8 1/4
 Type and Size of Casing (in.) PVC Sch 40 2"
 Type and Size of Screen (in.) Sch 40 PVC 2" w/ 3" outer w/ #50 Sand pack (Propack)
 Screen Perforation Diameter (in.) .006
 Screen Length (ft.) 5'
 Centralizer Depths (ft.) None
 Completion Technique

1. Type of Filter Pack and Placement Method

10/20 Silica & 30/20 Silica Sand, Poured

2. Type of Bentonite and Placement Method

None

3. Type of Grout Mixture and Placement Method

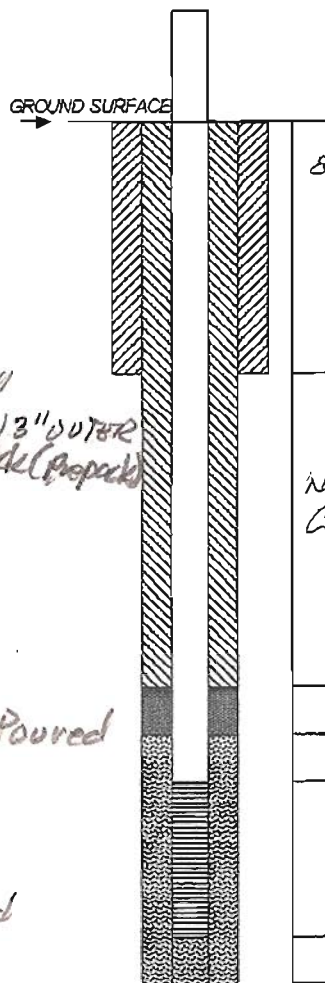
94# portland to 6 gal H₂O, Poured

Description of Potential Problems With Well:

None evident

Development Technique

Surge and Pumping



Well Head Elevation ~ 66.45
 Ground Surface Elev. ~ 62.04
 Well Head Completion Method 8" Flush mount, Metal w/ cement apron
 Drilling Method/Rig Type HSA-B-61 Mobil

Surface Casing: Type Metal
 Diameter 8"
 Length 14'

Neat MATERIALS
 Cement (sks.) None
 Filter Pack Material (ft.³) None
 Casing Material (ft.) ~ 7'
 Bentonite (ft.³) None

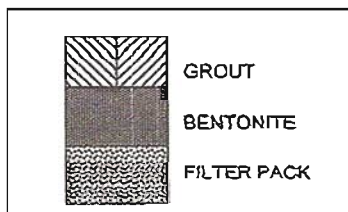
5' 30/70 Silica Sand
6' 10/20 Silica Sand
7'

Top of Bentonite Grout Seal 0.5 ft.
 Top of Filter Pack 5.5 ft.
 Top of Screen 7' ft.

12'
12'

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

Bottom of Screen 12' ft.
 Bottom of Hole 12.5' ft.





Denali Drilling Daily Work Report

Time Sheet

W.O. # 8850

Date 8-2-09
M T W T H F S S

Shift Dys.

Project Bristol Environmental - St Lawrence Island

Weather Clear + Sunny

Activities & Progress Finish cementing hl. # mw9 + complete below ground 8" pro-cover, drill + continuous sample hl. # I10IW01 to 10.5 with 4 1/4" ID H.S. augers, sampling with 2" S.D. SPT's.

Narrative: 6:30 AM to 7:00 Safety meeting
7:00 to 12:00 cement hl. # mw9, decan augers, set below grd. pro-cover 8" complete, drill hl. # I10IW01 to 10.5 continuous sampling.
12:00 to 12:30 Lunch/NC
12:30 to 3:00 set well e. 10.5 silica sand to 10/20 to 4.5, fine sand 30/70 mix to 3.5, cement to .5, set + complete 8" below grd. pro-cover
3:00 to 6:00 pm decan augers + rds, break down decan pad of drill tools, clean up + secure drill site.

- Checklist
- ☒ ACT/Progress
 - ☐ Rental Equip.
 - ☐ Company Equip.
 - ☐ Instructions Given/Received
 - ☐ Tests/Inspection
 - ☐ Weather/Effect
 - ☐ Delays/Cause
 - ☐ Visitors
 - ☐ Photos
 - ☐ Safety Meetings
 - ☐ Complaints
 - ☐ Accidents
 - ☐ Equip. Breakdown
 - ☐ Footage Drilled*
 - ☐ Sample Type*
 - ☐ Expendables*

Sea. H.S. auger bit teeth Kennametal
4 bgs sak. gretc. cement, 60 lbs. 1 ea 8" below grd. pro-cover,
Materials Used: 1 ea 5 x 2 S.Steel .006 screen, 2 ea. 5 x 2 S.Steel riser
*bottom cap welded on, 3 bg. 10/20 silica sand, 2 bgs cement 94 lbs,

Recap:	#1	#2	#3	#4	#5	#6	Daily: Total	
Holes Drilled								
Depth		10.5					10.5	
Samples Taken		3					3	
Personnel	Mob Hrs	Travel Hrs	Drill/Work Hrs	Maint. Hrs	DeMob Hrs	Other* Hrs	Other* Hrs	Extra Work* Hrs
R. Robinson			11.0					
D. Cramer			11.0					
Equipment								
Mobil B-61/T.K.								
								T. 11 hrs

Driller Randy Robinson

Client/Rep R. H. S. L.

* Explained in Narrative

Drill Rig Inspection Checklist

Date 8-2-09	Equipment Model/Type: Mobil B-61 / Trk.
Project Name: Bristol Enviro	Serial or License # TD-42 5675 BR AK
Project # ST. Lawrence Isl.	Location Owner/Operator: ST. Lawrence Island
Project Manager: Chuck Croley	Inspector: Randy Robinson

Place a (✓) in the "Yes" column if the requirement has been met. If a "No" is encountered, equipment must be removed from operation until the deficiency has been corrected. Describe deficiencies on page two of this form. Use the Comment column to note any additional information needed to certify the equipment. If a checklist item is found to be "Not Applicable," check "NA" and provide a comment in the appropriate box.

Item Name	Requirement	Yes	No	NA	Comment
Hydraulic systems controls and levers	No leak fittings or connections. Levers are in good operating condition. Fluid levels are full.	X			
Fuel, oil, water, and coolant lines	No leaks.		X		drill engine small oil leaks
Hoses	No leaks in hoses or connections. No signs of excessive wear, kinked or bent hoses.	X			
Gauges	Operational and visible to operator.	X			
Emergency kill switch and life line	Operational and accessible to operator.	X			operators side
Shear pins	In place.	X			
Drive chains	No signs of excessive wear, broken or defective links.	X			
Parking brakes	Set and operational.	X			use wheel chocks
Outriggers	No leaks. Set on pads (as necessary to avoid damage).		X		small hyd. leak L.R.
Windshield Wipers	Operational.	X			
Lights (head, tail and running lights)	Operational and without cracked lenses.	X			
Back-up alarm	Operational, spotter used.	X			use spotter / sound horn 3 times
Cables and ropes	No fraying, birdnesting, flattening, stretching. Must be braided or properly clamped at connections.	X			
Pulleys, drums and spools	No excessive wear or cracking.	X			
Derrick/Mast	Locked in position. Frame is not cracked or bent.	X			

Drill Rig Inspection Checklist

Item Name	Requirement	Yes	No	NA	Comment
Hoists	Properly spooled cable, rated to lift loads.	X			
Safety equipment	Safety harness, fire extinguisher, flares, safety reflectors, first aid kit, grounding wire for fueling, and spill response equipment (for fueling and repairs).	X			
Guards	Power take-offs (PTOs) and all rotating parts designed with guards. Guards must have warning labels.	X			
Miscellaneous (as applicable)	Diverter systems; auger and head seals; cyclones; grout plant guards; etc. (list): . . .	X			

DEFICIENCIES (Explain all negative response and list corrective actions; all deficiencies must be corrected before the rig is entered into service):

1. use yellow containment pad 4'x4'
2. secure L-jack leg with absorbent pad
- 3.
- 4.
- 5.

Other Repairs, Routine Maintenance and/or Comments:

Inspection Conducted and Certified by:

	Print Name:	Signature	Date:
Owner / Operator	Randy Roberson	Randy Roberson	8-2-09

Checklist Reviewed by:

	Print Name:	Signature	Date:
Earth Tech PM or SSO	MARK HEASTON	Mh Heaston	8-3-09



08.02.2009 09:27



DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 040
Date or Time Period: Monday August 3rd, 2009
Client: USACE, Alaska District

Weather Conditions: Misty and rainy in the morning, clearing in the afternoon

Temp 7:00 am: 48°F

Temp 5:00 pm: 52°F

Winds were calm out of the south.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	1
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	6
DRO – Water	AK102	0	3
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	3	3

Note: Soil and water samples were shipped off site on a Bering Air flight.

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐

Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:
Cold Stress: Wear multiple layers and have an impermeable layer to block rain and wind.
Stay dry.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Landfill drum removal excavation was completed. Eight drums were removed from the landfill. Four lead-acid batteries were discovered and more cleaned drums were reintroduced to the landfill. Drum cleaning, pumping and transfer operations continued at the HWAP. The water impoundment was sampled. The samples were shipped off-site. Landfill capping continued at the landfill. Well development continued at the MOC. Soil samples from soil borings were shipped off-site. A Bering Air flight arrived with supplies and the drillers left the site. 28 people were on site this day. See remarks. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	13.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	Down
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	192.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson	1	1 Day	Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer	1	1 Day			
Totals	2				

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	0	431	431
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	372	372
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	8	174	182
Soil Removed	3 tons	88 tons	91 tons (Estimate)
Used Oil Recovered	0 gallons	600 gallons	600 gallons
Oily Sludge Recovered	0 gallons	470 gallons	470 gallons
PCB Lighting Ballasts Discovered	0	11	11
Oily Debris Drums	0	2 x 85g drums 2 x 55g drums	2 x 85g drums 2 x 55g drums
Antifreeze	0	1 gallon	1 gallon
Batteries Discovered	4	64	68

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

The final soil Conexes will be weighed on 8/4/2009. Final soil weights will be verified on DQCR 041 for 8/4/2009.

Randy Roberson and David Cramer left the site this evening. Drum/Anomaly excavation was completed.

Soil and water samples were shipped off-site.

Comments: Photo 1 shows oil in the soil at the landfill. This oil was a result of a leaking drum. The area was over-excavated and the soil was loaded into an open-top Conex. Photo 2 shows the same area seen in photo 1 following excavation of the oil affected area.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications to the best of my knowledge, except as noted above.

CQCSM Signature

Date

Site Superintendent Signature

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Removal of contamination sources from the landfill is now complete. As soon as Bristol provides the final quantities removed some contracting actions can occur, options for additional POL soil will need exercised, light ballast and broken battery disposal needs added, the quantity for intact batteries needs increased, and the quantity for drum contents will most likely need decreased.

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Monday
8-3-09

Conducted By: Chuck Criley

- Subjects:
- 1) Cold Stress; our main protection is
 - 2) having many layers available one of
 - 3) which is impermeable
 - 4) _____
 - 5) _____
 - 6) _____

Printed Name	Signature	Company
Carl D Calogian		BERS
Allen Davis		BERS
Randy Peterson		Donati Drilling
Don JRCrowder		Donati Drilling
Johnny Willis		BERS
Douglas Byers		BERS
EUGENE TUCKER		BERS
Jack Willis		Bristol
Georges Mack		BERS
Bob Schlosser		ACC
Kissell J. J. J.		BERS
Michael Gallegos		BERS
Eric Barnhill		BERS
Sam McFarlane		ACCOM
Jebb Atkins		BERS
Michael T. J. J.		BERS
Lance G. Prouss		ACCOM
Sam MP McBride		BERS
Bruce Schaeffer		BERS
Mark H. H.		ACCOM
Valerie Palmer		USACE
Maze Thompson		BERS
Karin Fiedberg		FWX
Kenny Black		BERS



08.03.2009 13:14



08.03.2009 13:21

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 041
Date or Time Period: Tuesday August 4th, 2009
Client: USACE, Alaska District

Weather Conditions: Misty and rainy in the morning, clearing in the afternoon

Temp 7:00 am: 46°F

Temp 5:00 pm: 51°F

Winds were calm out of the north in the morning, shifting to east winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Deficiencies noted and/or corrected this day (Include corrective action taken and anticipated date of correction).

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	11	12
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	2	8
DRO – Water	AK102	0	3
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	3	3

Note: Soil and water samples were shipped off site on a Bering Air flight.

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐
 Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐
 Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐
 Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒
 Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐
 Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐
 Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐
 Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐
 Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐
 Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐
 Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:
 Two trucks will be hauling. Watch out for them on the roads.
 Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Field screening was conducted on the oil drums using the Chlor-D-Tect kits. Waste characterization samples were taken from the Conex containers. Drum cleaning, pumping and transfer operations continued at the HWAP. Landfill capping continued. The two stockpiles at the landfill were leeled and spread before noon, then hauling operations moved to the borrow area in the afternoon. Twenty-two loads were hauled this day. Well development continued at the MOC. The injection system is being assembled and prepped. 26 people were on site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day

			DeWalt electric compressor		1 Day
					1 Day
			DeWalt Generator	Environ #1	
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	188.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒
Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒
Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

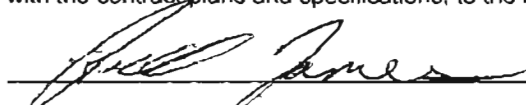
Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	11	431	442
Volvo A40D Rock Trucks – S. McBride (DTO 553)	11	372	383
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	8	174	182
Soil Removed	0 tons	91 tons	91 tons (Estimate)
Used Oil Recovered	0 gallons	600 gallons	600 gallons
Oily Sludge Recovered	0 gallons	470 gallons	470 gallons
PCB Lighting Ballasts Discovered	0	11	11
Oily Debris Drums	0	2 x 85g drums 2 x 55g drums	2 x 85g drums 2 x 55g drums
Antifreeze	0	1 gallon	1 gallon
Batteries Discovered	0	68	68


Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Comments: Photo 1, looking northeast, shows landfill capping in progress. Photo 2, looking northeast, shows landfill capping procedures.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


QCSCM Signature

8/5/2009
Date


Site Superintendent Signature

8-5-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

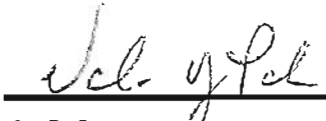
Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

No additional comments.


QAR Signature

05 Aug 2009
Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

THPS
Date: 8-4-09

Conducted By: Chuck Croley

- Subjects:
- 1) Change In Work for Mary
 - 2) _____
 - 3) New Traffic Patterns: Two trucks hauling
 - 4) and will start haul from Boreau area
 - 5) _____
 - 6) _____

Printed Name	Signature	Company
<u>Allen Davis</u>	<u>Allen Davis</u>	<u>BERS</u>
<u>EUGENE TUDIE</u>	<u>Eugene Tudie</u>	<u>BERS</u>
<u>Russell James</u>	<u>Russell James</u>	<u>BERS</u>
<u>Michael Harrison</u>	<u>Michael Harrison</u>	<u>BERS</u>
<u>George Marx</u>	<u>George Marx</u>	<u>BERS</u>
<u>Era Birchill</u>	<u>Era Birchill</u>	<u>BERS</u>
<u>Carl A. Calayan</u>	<u>Carl A. Calayan</u>	<u>BERS</u>
<u>Michael Tootie</u>	<u>Michael Tootie</u>	<u>BERS</u>
<u>Michael Gallegos</u>	<u>Michael Gallegos</u>	<u>BERS</u>
<u>Jebb Atkins</u>	<u>Jebb Atkins</u>	<u>BERS</u>
<u>Maze Thompson</u>	<u>Maze Thompson</u>	<u>BERS</u>
<u>John Williams</u>	<u>John Williams</u>	<u>BERS</u>
<u>Jack Willis</u>	<u>Jack Willis</u>	<u>BERS</u>
<u>Kenneth Ford</u>	<u>Kenneth Ford</u>	<u>BERS</u>
<u>Valerie Palmer</u>	<u>Valerie Palmer</u>	<u>BERS</u>
<u>Bruce Schreiner</u>	<u>Bruce Schreiner</u>	<u>BERS</u>
<u>Douglas Bays</u>	<u>Douglas Bays</u>	<u>BERS</u>
<u>Sean MP McBride</u>	<u>Sean MP McBride</u>	<u>BERS</u>
<u>Polo Schlossek</u>	<u>Polo Schlossek</u>	<u>BERS</u>
<u>Lance C. Proulx</u>	<u>Lance C. Proulx</u>	<u>BERS</u>
<u>Scott Proulx</u>	<u>Scott Proulx</u>	<u>BERS</u>
<u>KANDY BLAIR</u>	<u>KANDY BLAIR</u>	<u>BERS</u>



08.04.2009 15:58



DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 042
Date or Time Period: Wednesday August 5th, 2009
Client: USACE, Alaska District

Weather Conditions: Misty and rainy in the morning, clearing in the afternoon

Temp 7:00 am: 46°F

Temp 5:00 pm: 54°F

Winds were calm out of the north in the morning, shifting to south winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	12
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	8
DRO – Water	AK102	0	3
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	4	4
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	3

Note: Samples were shipped off site on a Bering Air flight.

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐

Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Two trucks will be hauling. Watch out for them on the roads. Watch for the locals on their 4-wheelers.

Watch where you park with heavy loads.

Be aware of Jobsite Complacency. We have been on site for a long time, stay focused. Slower is faster.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Cleaning operations took place at the HWAP. Equipment/Materials are being decontaminated and wastewater is continually being treated. Landfill capping continued. Hauling continued from the borrow area. Forty-three loads were hauled this day. Well development continued at the MOC. Four baseline groundwater samples were collected. The injection system is being assembled and prepped. A Bering Air flight arrived this evening. Three people arrived and one person left the site. 29 people were on site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.25	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	12.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.25	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	17	190.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Ray Toro	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	20	442	462
Volvo A40D Rock Trucks – S. McBride (DTO 553)	23	383	406
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	91 tons	91 tons (Estimate)
Used Oil Recovered	0 gallons	600 gallons	600 gallons
Oily Sludge Recovered	0 gallons	470 gallons	470 gallons
PCB Lighting Ballasts Discovered	0	11	11
Oily Debris Drums	0	2 x 85g drums 2 x 55g drums	2 x 85g drums 2 x 55g drums
Antifreeze	0	1 gallon	1 gallon
Batteries Discovered	0	68	68

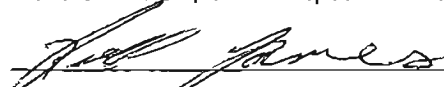
Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

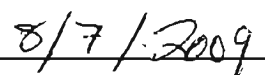
Weights and volumes are, at this point, estimates. Final numbers will be recorded soon and adjusted accordingly.


A Bering Air flight arrived this evening. Three people arrived and one person, Ray Toro, Global Baker, left the site. Greg Baldwin, (Global baker), Fritz Waghiy (Savoonga Village Rep), and Paul Reokok (Savoonga village Rep) are on site today.

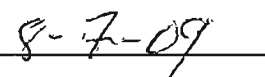
Comments: Photo 1, looking southwest, shows a test pit excavated to determine the depth of the fill covering the landfill. Photo 2, looking northwest, shows the water containment areas in the HWAP.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature


Date


Site Superintendent Signature


Date

Government Quality Assurance Comments

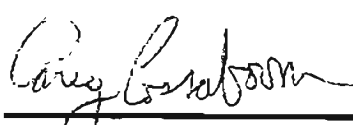
Was QA testing performed this day?

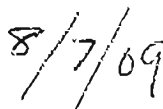
Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:


QAR Signature


Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Wednesday
Date: 8-5-09

Conducted By: Chuck Coley

- Subjects:
- 1) Roadway Traffic: Heavy equipment
 - 2) watch for local 4 wheelers, pickups
 - 3) traffic defer to heavy loads if possible.
 - 4) watch where you park w/ heavy loads
 - 5)
 - 6) Be aware of Job Site Compliance from long job duration.

Printed Name	Signature	Company
Carl D Calugan	<i>Carl D Calugan</i>	BERS
Geoff Moore	<i>Geoff Moore</i>	BERS
Michael Gallegos	<i>Michael Gallegos</i>	BERS
Johnny Willis	<i>Johnny Willis</i>	BERS
EUGENE TORRES	<i>Eugene Torres</i>	BERS
Allen Dennis	<i>Allen Dennis</i>	BERS
Eric Barnhill	<i>Eric Barnhill</i>	BERS
Russell Jones	<i>Russell Jones</i>	BERS
William Tamm	<i>William Tamm</i>	BERS
Maze Thompson	<i>Maze Thompson</i>	ACC
Bodo Schloesser	<i>Bodo Schloesser</i>	
Ken Fetzle	<i>Ken Fetzle</i>	FUX
Sean NDN Bode	<i>Sean NDN Bode</i>	BERS
JACK WILLIS	<i>JACK WILLIS</i>	Bruce
Valerie Palmer	<i>Valerie Palmer</i>	USACE
Marc Hester	<i>Marc Hester</i>	ACC
John Robbins	<i>John Robbins</i>	BERS
Douglas Byers	<i>Douglas Byers</i>	BERS
hancele Prouss	<i>hancele Prouss</i>	ACC
Bruce Schmeier	<i>Bruce Schmeier</i>	BERS
Scott LITENBERG	<i>Scott LITENBERG</i>	ACC
FANNY BLACK	<i>FANNY BLACK</i>	(BERS)



08.05.2009 11:16



08.05.2009 16:56

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 043
Date or Time Period: Thursday August 6th, 2009
Client: USACE, Alaska District

Weather Conditions: Clear all day.

Temp 7:00 am: 42°F

Temp 5:00 pm: 56°F

Winds were calm 0-5 mph out of the north.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: Yes
Initial: No
Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	12
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	4	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	2	2
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	4	4

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	2	6
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	3

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐
Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐
Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐
Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒
Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐
Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐
Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐
Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐
Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐
Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐
Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Watch out for visitors that will be arriving today. More reflective vests will be arriving on the plane.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Cleaning operations continued at the HWAP. Equipment/Materials are being decontaminated and wastewater is continually being treated. Drum waste was inventoried and staged. Emerald personnel arrived on-site facilitate the waste handling process. Landfill capping continued. Hauling continued from the borrow area. Forty-six loads were hauled this day. Two baseline groundwater samples were collected. The injection system is being assembled and prepped. Waste Characterization samples were collected from bulk soil and drum waste. A Boeing Air flight arrived this evening. Three people arrived and two people left the site. 29 people were on site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker	1	12.0	White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.25	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.25	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics		1 Day

			Truck)		
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	18	201.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Bob Schlosser	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	23	462	485
Volvo A40D Rock Trucks – S. McBride (DTO 553)	23	406	429
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	2.2 tons	NA	2.2 tons
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	91 tons (Estimate)	102.5 tons (Final Weight)
Used Oil Recovered	500 gallons	600 gallons	1100 gallons
Oily Sludge Recovered	380 gallons	470 gallons	850 gallons
PCB Lighting Ballasts Discovered	0	11	11
Oily Debris Drums	0	2 x 85g drums 2 x 55g drums	2 x 85g drums 2 x 55g drums
Antifreeze	0	1 gallon	1 gallon
Batteries Discovered	0	68	68

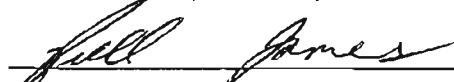
Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Weights and inventory have been updated. Oil and sludge is still being transferred and accumulated.

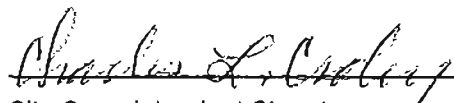
A Security Aviation flight arrived today. Three people arrived, Molly Welker (BERS-PM), Carey Cossaboom (USACE), and Scott Schultz (Emerald). Valerie Palmer (QAR) and Bob Schlosser (AECOM) left the site.

Comments: Photo 1, looking west, shows drums staged at the HWAP. Photo 2, looking northwest, shows part of the landfill cap in progress.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

8/8/2009
Date


Site Superintendent Signature

8-8-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐


Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

Landfill capping ~~is~~ progressing nicely. Survey lath marks test pits indicating whether additional fill is required or not. Several test pits along east side of road at south end of landfill need to be smoothed out. Tires and battery recovered from pond along NW edge. Marked an armour rock boulder along east side with survey lath - potential site visit rock stop to show pyrite and arsenopyrite in granitic rock.

Digger operator very competent, fast. Said that oil lifts sometimes impractical because of cobbles/boulders, but felt 95% compaction was realistic with oil lifts passed. The trash below the fill is not as well compacted - inhomogeneous, but the cap should be solid.


QAR Signature

8-8-09
Date

Supervisor's Initials

Date

* Note: Don't recall Security Air Flight (#6 page 2)



Bristol

ENVIRONMENTAL REMEDIATION SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Thursday
Date: 8-16-09

Conducted By: Chuck Croley

- Subjects:
- 1) New Visitors On Site: A group of
 - 2) us maybe wandering around different
 - 3) sites. Please use caution when operating
 - 4) equipment around us. We will get
 - 5) them decked out in PPE. As soon as
 - 6) Anchorage plane gets on the ground.

Printed Name	Signature	Company
George M. M. M.	[Signature]	BERS
Michael Gallegos	[Signature]	BERS
Carl A. Calugan	[Signature]	BERS
Jack Willis	[Signature]	BERS
Allen Dennis	[Signature]	BERS
EUGENE TOBIE	[Signature]	BERS
BOW S. WOSER	[Signature]	BERS
Russell Jones	[Signature]	BERS
Marc Thompson	[Signature]	BERS
Eric Burnhill	[Signature]	BERS
Sean M. McBratney	[Signature]	BERS
MARK HENSON	[Signature]	BERS
Bob Atkins	[Signature]	BERS
JOE ROSEN	[Signature]	BERS
Johnny Willis	[Signature]	BERS
KEVIN FETTEL	[Signature]	BERS
Michael Tobie	[Signature]	BERS
Douglas Biers	[Signature]	BERS
BRUCE SCHNEIDER	[Signature]	BERS
BRUCE G. SCHNEIDER	[Signature]	BERS
RODDY BLAIR	[Signature]	BERS

Preparatory Phase Meeting Checklist

Contract No.: W911-KB-09-C-0013

Date: 08-06-2009

Contract Title: In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Definable Feature of Work: In Situ Chemical Oxidation Study at Former Main Operations Complex

Specification Section: _____ Review Completed: _____ Approval Obtained: _____

Personnel Present		
Name	Position	Organization
1. Chuck Croley	Site Superintendent/SSHO	BERS
2. Maze Thompson	Foreman	BERS <i>RJ 8/6/2009</i>
3. Russell James	CQCSM	BERS
4. Lance Peuce	Environmental Sampler	AECOM
5. Scott Pittenger	Scientist	AECOM
6. Mark Heaston	Activity Supervisor	AECOM
7. Eric Barnhill	Environmental Sampler	BERS
8.		
9.		

(List additional personnel on reverse side)

Submittals Involved		
Number and Item	Reviewed	Approval Code/Remarks
1. Work Plan	Yes	Approved
2. Site Safety and Health Plan	Yes	Approved
3. Site Safety and Health Plan	Yes	Approved
4. Sampling and Analysis Plan	Yes	Approved
5. Waste Management Plan	Yes	Approved

(List additional items on reverse side)

Preparatory Phase Meeting Checklist

Have all items been approved?

Yes ✓ No NA

Are all materials on hand?

Yes ✓ No NA

Tested?

Yes No NA

Reviewed?

Yes No NA

Property Stored?

Yes X No NA

Remarks: See Attached Notes

Preparatory Phase Meeting Checklist

What items are delinquent or awaiting comments/approval	
1. None	4.
2.	5.
3.	6.

Tests required in accordance with contract requirements	
Test	Paragraph
1. None	
2.	
3.	

Has all preliminary work been completed in accordance with the specifications?

Yes X No _____

List of items you want to ensure were covered:

1. Safety Procedures: Handling of chemicals, Site access restrictions, Ventilation

2. ~~Injection procedures~~ - Injection Procedures

3. Sampling Procedures

4. MSDS for oxidants

5.

6.

7.

Work efforts to be accomplished:

1. Chemical Mixing/Injection at the MOC.

2. Injection system set up and preparation.

3. Post injection sampling.

4.

Preparatory Phase Meeting Checklist

Equipment safety checklists:

Attached for:

1. _____
2. _____
3. _____

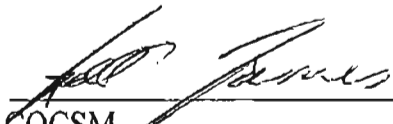
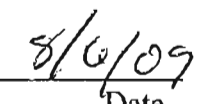
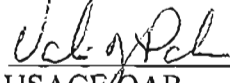
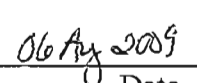
On-file for:

1. _____
2. _____
3. _____

Required Workmanship Levels:

1. _____
2. _____
3. _____

Remarks (attach extra sheet if needed): See Attached Notes

	
CQCSM	Date
	
USACE/QAR	Date

Original and one copy to USACE QAR.
Retain copy in Bristol field project file.
Forward completed copy to Bristol QC Manager.



Project: ISCO at former MAC	Computed:	Date: 8/10/2009
Subject:	Checked:	Date:
Task: Pre-Injection Discussion		Sheet 1 of 1

- 2 groundwater samples left to collect, then baseline will be complete
- Today collecting the final samples
- Injection Tomorrow - Chemical Mixing
 - Need the Conex staged near the injection area
- Site Exclusion
 - PPE - Modified level D splash shield - PVC boots & gloves
 - Barrier - Palette Barriers, string-up tape - Cones will be set up
- Safety - If you see a clear liquid, assume it's oxidant
 - PPE - Saranex - splash shield integrated into Hard Hat
 - No Smoking
 - Signs will be on display - Chuck will look for stands for the signs - Interested in keeping the locals safely out of the site
 - MSDS is located in the office end of AECOM's trailer - Will make copies for Chuck Coley
 - Scott has a general "right to know book" he will copy for Chuck
 - No Inhalation Hazard - Dilution of Peroxide
 - Mark Encourages Controlled Access to the site
- Water fill-up can occur without having to access the working site
 - Be aware of the PPE during Monitoring phases / sampling
 - PPE gloves
 - Sampling - Last event will not have camp available
 - Side-by-side will be on-site
 - Scott will give a safety lecture at the Health & Safety Meeting tomorrow morning
 - Injection Monitoring will occur frequently
 - 3 to 4 days for the Injection Process
 - 30 psi for pump pressure w/relief valves
 - EPA has been contacted about the UIC permit
- Tomorrow will begin oxidant ^{Mixing} testing provided materials arrive today
- DeMob - Pave w/freshwater Rinse and drain lines every night
 - Scott & Mark will remain through day 3 monitoring
 - Lance and Aaron will do post injection sampling

Materials Awaiting parts today. Might need more preserved bottles for DCO - Check inventory for sample bottle needs

Project: <u>15CO at Former MOC</u>	Computed:	Date: <u>8/6/09</u>
Subject: <u>Pre-Injection Meeting</u>	Checked:	Date:
Task:		Sheet <u>2</u> of <u> </u>

- DeMob and storage of 15CO Materials
 - May leave side-by-side and some fuel after demobbing camp
 - Might be able to store some supplies in NOME
 - More discussion will be necessary
- Schedule - 28 day sampling event will fall around the 8th, 9th, and 10th of September
- AECOM will need to take 1st to Access chemicals
 - BERS will provide personnel and equipment to Accommodate
- Include details on the 15CO Treatment on the DQCRs during the Injection and Monitoring.
- Plans from Security should arrive today.
- AECOM will monitor for leaks - Will have neutralizers/safety locks and checks - Dilution is a good method for safety
 - Water is the best method for extinguishing a fire
 - Scott is in contact w/manufacturer about re-stocking the chemicals. Options are being weighed about what to do with the chemical when the injection is over.

8/6/2009

Full Jones

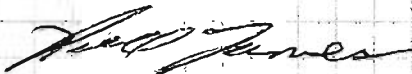
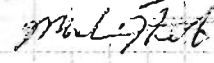


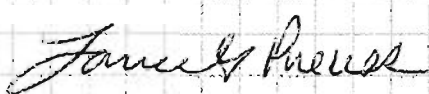
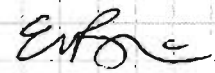
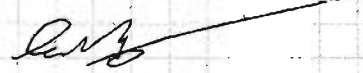
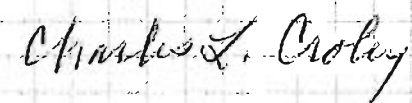


Bristol

ENVIRONMENTAL & ENGINEERING
SERVICES CORPORATION

Job No. 49025

Project: <u>In Situ Chemical Oxidation Study</u>	Computed:	Date:
Subject: <u>Sign in Sheet</u>	Checked:	Date:
Task:		Sheet <u> </u> of <u> </u>

<u>Name</u>	<u>Signature</u>	<u>Date</u>
Russell James		8/6/2009
Mark Thornton		8-6-09
Valerie Palmer		06 Aug 2009
Bob Schlessel		8/6/09
LANCE G. PIERCE		8/6/09
ERIC BARNHILL		August 6, 2009
Scott Proctor		8/6/2009
Chuck Croley		8-6-09



08.06.2009 17:53



08.06.2009 17:55

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 044
Date or Time Period: Friday August 7th, 2009
Client: USACE, Alaska District

Weather Conditions: Clear, becoming partly cloudy.

Temp 7:00 am: 44°F

Temp 5:00 pm: 50°F

Winds were steady 5-20 mph out of the south shifting to the northwest.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	22
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	6
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	3
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	2	2

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐
Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐
Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐
Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒
Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐
Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐
Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐
Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐
Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐
Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐
Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Watch out for local 4-wheeler traffic. Scott Pittenger discussed the dangers of the oxidants that will be in use at the ISCO site and stressed the importance of site restrictions and proper PPE.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Cleaning operations continued at the HWAP. Equipment/Materials are being decontaminated. Drum waste was inventoried and staged. Landfill capping continued. Hauling continued from the borrow area. Forty-six loads were hauled this day. Two baseline groundwater samples were collected. The injection system is being assembled and prepped. Waste Characterization samples were collected from a drum containing antifreeze. 29 people were on-site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker	1	12.0	White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	12.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day

			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	18	203.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

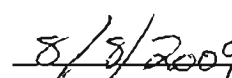
PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	23	485	508
Volvo A40D Rock Trucks – S. McBride (DTO 553)	23	429	452
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	91 tons (Estimate)	102.5 tons (Final Weight)
Used Oil Recovered	0	1100 gallons	1100 gallons
Oily Sludge Recovered	100 gallons	850 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11
Antifreeze	0	1 gallon	1 gallon
Intact Batteries	0	NA	350 Pounds
Broken Batteries	4100 pounds	NA	4100 Pounds


Remarks (Include any visitors to project and miscellaneous remarks pertinent to work):


Comments: Photo 1, looking northwest, shows one of the lifts being laid down at the landfill cap. Photo 2, looking northwest, shows the track-walking taking place during the landfill capping process.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature


Date


Site Superintendent Signature


Date

Government Quality Assurance Comments

Was QA testing performed this day?

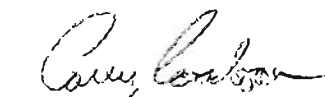
Yes ☐ No ☒ N/A ☐

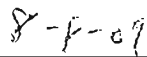
Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

A few test pits on north side of Site 1 require monitoring


QAR Signature


Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Friday
8-7-09

Conducted By: Chuck Croley

Subjects:

- 1) More vehicles on the road: Use Caution
- 2) _____
- 3) AECOM: Presentation on some of their
- 4) ops & chemicals
- 5) _____
- 6) _____

Printed Name	Signature	Company
Douglas Byers	<i>[Signature]</i>	BERS
George Mack	<i>[Signature]</i>	BERS
Allen Davis	<i>[Signature]</i>	BERS
Carl D. Colanin	<i>[Signature]</i>	BERS
Jack Willis	<i>[Signature]</i>	Bristol
Michael Kallagher	<i>[Signature]</i>	BERS
Mace Thompson	<i>[Signature]</i>	BERS
Scott Timmer	<i>[Signature]</i>	AECOM
Paul Jones	<i>[Signature]</i>	BERS
Lance G. Jones	<i>[Signature]</i>	HELON
GLENN TORRE	<i>[Signature]</i>	BERS
Scott S. Th	<i>[Signature]</i>	EMERALD
Michael T. Mc	<i>[Signature]</i>	BERS
John Adams	<i>[Signature]</i>	BERS
Mace Thompson	<i>[Signature]</i>	AECOM
Johnny Willis	<i>[Signature]</i>	BERS
Eric Barnhill	<i>[Signature]</i>	BERS
Scott MP McBride	<i>[Signature]</i>	BERS
Bruce Schneider	<i>[Signature]</i>	BERS
Moely iulika	<i>[Signature]</i>	TERS
Paul Fitzgerald	<i>[Signature]</i>	FOX
Kathy Wilson	<i>[Signature]</i>	BERS



08.07.2009 13:45



08.07.2009 17:13

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 045
Date or Time Period: Saturday August 8th, 2009
Client: USACE, Alaska District

Weather Conditions: Foggy and cool, with brief periods of clearing.

Temp 7:00 am: 44°F

Temp 5:00 pm: 45°F

Winds were steady 5-15 mph out of the west shifting to east winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No

Initial: No

Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	22
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	6
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	3	6
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	2	2

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐

Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Keep focused here in the later parts of the job. Remain aware of the equipment on site. Do not become complacent as things begin to wind down.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Cleaning operations continued at the HWAP. Equipment/Materials are being decontaminated. Drum waste was inventoried and staged. Landfill capping continued. Hauling continued from the borrow area. Forty-five loads were hauled this day. Warm water was injected at the ISCO site to test the injection system and the aquifer conditions. Lab samples were collected from the treated wastewater containment area. 29 people were on-site this day. There were no airplanes on site today. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker	1	12.0	White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	12.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day

			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	18	202.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Lance Peuce	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

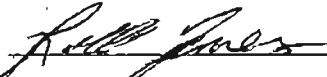
PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	22	508	530
Volvo A40D Rock Trucks – S. McBride (DTO 553)	23	452	475
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Loads of Water Hauled			
Gallons of Chemicals Mixed			
Gallons of Chemicals Injected			
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered	0	1100 gallons	1100 gallons
Oily Sludge Recovered	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11
Antifreeze	0	1 gallon	1 gallon
Intact Batteries	0	NA	350 Pounds
Broken Batteries	0	4100 pounds	4100 Pounds

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

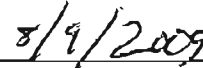
The fog was so thick on site all day that scheduled flights, Bering Air from Nome and Security Aviation from Anchorage, were canceled.

Comments: Photo 1, looking north, shows a test pit excavated to prove the depth of fill at the landfill. Photo 2, looking north, shows the track-walking taking place during the landfill capping process.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



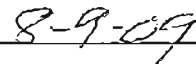
CQCSM Signature



Date



Site Superintendent Signature



Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

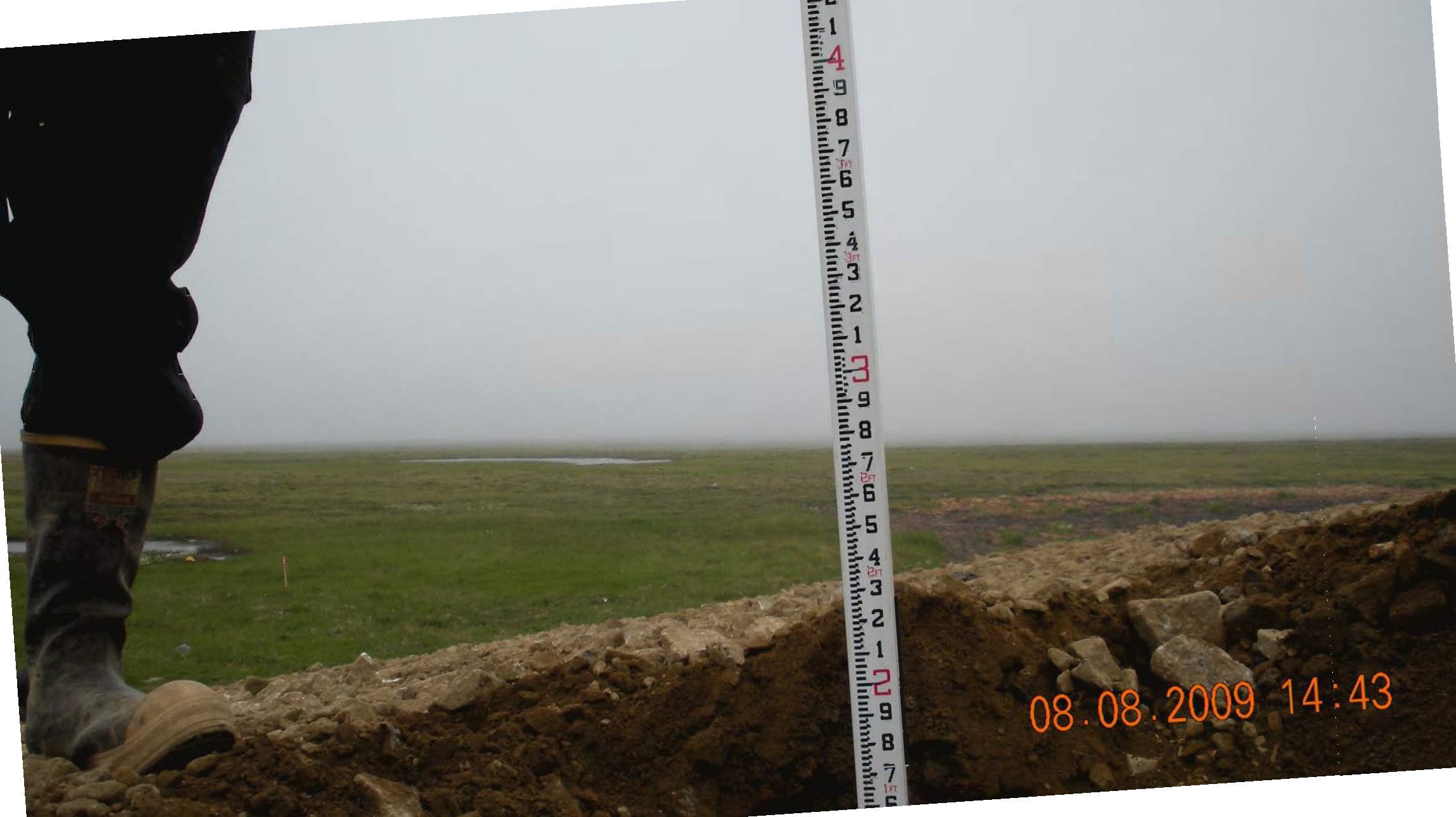
In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Saturday
8-8-09

Conducted By: Charles Craley

- Subjects: 1) Nearing end of Job Syndrome:
2) People tend to loose focus. This is
3) a time to unwind, but it is a time
4) of increased accidents/loss of awareness.
5) This often manifests itself in becoming
6) oblivious to the equipment working
around us. You have done a good job. Keep it
up.

Printed Name	Signature	Company
Michael Gallegos	<i>[Signature]</i>	BERS
George Mack	<i>[Signature]</i>	BERS
EUGENETOR LIE	<i>[Signature]</i>	BERS
Eric Brownell	<i>[Signature]</i>	BERS
Scott Prohaska	<i>[Signature]</i>	BERS
Ellen Dennis	<i>[Signature]</i>	BERS
Michael Tomic	<i>[Signature]</i>	BERS
Mark Johnson	<i>[Signature]</i>	BERS
Scott Selke	<i>[Signature]</i>	EMERALD
Timmy Welker	<i>[Signature]</i>	BERS
Jack Willis	<i>[Signature]</i>	Bristol
Johnny Willis	<i>[Signature]</i>	BERS
Fussell James	<i>[Signature]</i>	BERS
Carl A. Caplan	<i>[Signature]</i>	BERS
Dwight Byers	<i>[Signature]</i>	BERS
Bruce Schreuer	<i>[Signature]</i>	BERS
Debb Atkins	<i>[Signature]</i>	BERS
SEAN M. McBride	<i>[Signature]</i>	BERS
Lance G. Phillips	<i>[Signature]</i>	Acorn
RANDY BUTCH	<i>[Signature]</i>	BERS



08.08.2009 14:43



08.08.2009 15:49

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 046
Date or Time Period: Sunday August 9th, 2009
Client: USACE, Alaska District

Weather Conditions: Foggy and cool, clearing in the afternoon.

Temp 7:00 am: 41°F

Temp 5:00 pm: 46°F

Winds were calm out of the south in the morning, shifting to northwest winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	1	23
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	6
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	6
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	0	2

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Radio reception can sometimes be spotty, so if you hear a message for someone, pass it on.
Stay aware of your surroundings out there and don't get into a rush.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Cleaning operations continued at the HWAP. Equipment/Materials are being decontaminated. Drum waste is being inventoried and staged. The containment areas are being prepped for removal. Landfill capping continued. Hauling continued from the borrow area. Forty-six loads were hauled this day. AECOM injected approximately 600 gallons at the ISCO site. Flights arrived from Bering Air and Security Aviation. Three people left the site and one person arrived. 30 people were on-site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker	1	12.0	White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	Down
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	18	201.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Aaron Jambrosic	1	12.0			
Lance Peuce	1	12.0			
Totals	3				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

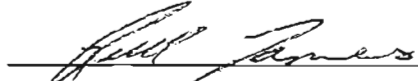
PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	23	530	553
Volvo A40D Rock Trucks – S. McBride (DTO 553)	23	475	498
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Loads of Water Hauled			
Gallons of Chemicals Mixed	600 gallons	0 gallons	600 gallons
Gallons of Chemicals Injected	600 gallons	0 gallons	600 gallons
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered (Oil/Oily Water)	50 gallons	1100 gallons	1150 gallons
Oily Sludge Recovered	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11
Antifreeze	0	1 gallon	1 gallon
Intact Batteries	0	NA	350 Pounds
Broken Batteries	0	4100 pounds	4100 Pounds

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Molly Welker, BERS Project Mgr., Carey Cossaboom, USACE, and George Mack, BERS Operator left the site and Aaron Jambrosic arrived on site.

Comments: Photo 1, looking northwest, shows some of the drums loaded into a Conex at the HWAP. Photo 2, looking north, shows an overview of the landfill.

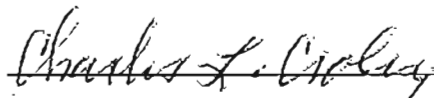
Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



CQCSM Signature

8/9/2009

Date



Site Superintendent Signature

8-9-09

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Sunday
Date: 8-9-09

Conducted By: Charles Croley

- Subjects:
- 1) Communications: Radios are having
 - 2) spotty coverage. Pass on messages. Important
 - 3) for Safety & Work.
 - 4) _____
 - 5) Stay aware of surroundings
 - 6) Do not be in a rush.

Printed Name	Signature	Company
Carl A. Coligan	<i>Carl A. Coligan</i>	BERS
Allen Davis	<i>Allen Davis</i>	BERS
Geoffrey Mack	<i>Geoffrey Mack</i>	BERS
Mark Thompson	<i>Mark Thompson</i>	BERS
Michael Gallegos	<i>Michael Gallegos</i>	BERS
Maiky Llerena	<i>Maiky Llerena</i>	BERS
Danys Biers	<i>Danys Biers</i>	BERS
Jack Williams	<i>Jack Williams</i>	BERS
EUGENE TOOLE	<i>Eugene Toole</i>	BERS
CAREY COSGROVE	<i>Carey Cosgrove</i>	SPACE
Scott Schultz	<i>Scott Schultz</i>	EMERALD
Michael Jaczic	<i>Michael Jaczic</i>	BERS
Jebbo Adams	<i>Jebbo Adams</i>	BERS
Sam Thompson	<i>Sam Thompson</i>	ACCOM
Janice Brown	<i>Janice Brown</i>	ACCOM
Sean McIsaac	<i>Sean McIsaac</i>	BERS
Mark Wilson	<i>Mark Wilson</i>	ACCOM
Kara Fiedel	<i>Kara Fiedel</i>	FOX
Bruce Schnewer	<i>Bruce Schnewer</i>	BERS
Russell Jones	<i>Russell Jones</i>	BERS
Larry Black	<i>Larry Black</i>	BERS



CAUTION
PCBs



HAZARDOUS
WASTE

08.09.2009 10:06



08.09.2009 17:03

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 047
Date or Time Period: Monday August 10th, 2009
Client: USACE, Alaska District

Weather Conditions: Mostly Sunny.

Temp 7:00 am: 41°F

Temp 5:00 pm: 46°F

Winds were calm out of the south in the morning, shifting to northwest winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	23
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	6
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	6
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	0	2

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Thanks for a good job so far. Even though the job is winding down, it's important to stay focused and keep a steady pace.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Cleaning operations continued at the HWAP. Equipment/Materials are being decontaminated. Drum waste is being inventoried and staged, awaiting analytical results. The containment areas are being removed. Landfill capping continued. Hauling continued from the borrow area. Forty-six loads were hauled this day. AECOM injected approximately 425 gallons at the ISCO site. AECOM encountered something that seems like a re-direction of injected fluids. Further confirmation of this re-direction or short circuiting of fluids will take place. 25 people were on-site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack			Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	16	178.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Aaron Jambrosic	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

USACE, Carey Cossaboom, instructed BERS to finish the landfill cap with minimal fill over the areas where no debris was encountered, but to ensure that a functional drainage/erosion design is established. This correspondence occurred via email and is attached.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

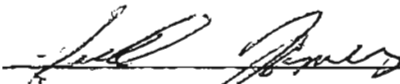
Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	22	553	575
Volvo A40D Rock Trucks – S. McBride (DTO 553)	24	498	522
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Loads of Water Hauled			
Gallons of Chemicals Mixed	425 gallons	600 gallons	1025 gallons
Gallons of Chemicals Injected	425 gallons	600 gallons	1025 gallons
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered (Oil/Oily Water)	20 gallons	1150 gallons	1170 gallons
Oily Sludge Recovered	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11
Antifreeze	0	1 gallon	1 gallon
Intact Batteries	0	350 pounds	350 Pounds
Broken Batteries	0	4100 pounds	4100 Pounds

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Comments: Photo 1, looking north, shows the landfill cap in progress. Photo 2, looking south, shows part of the containment area where liners have been removed.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

8/11/2009
Date


Site Superintendent Signature

8-11-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Monday
Date: 8-16-09

Conducted By: Chuck Croley

Subjects:

- 1) Thank you guys for a good job. Keep
- 2) moving forward at a steady pace. Slower
- 3) is faster.
- 4) Picking up liners: Keep materials in the
- 5) center. Don't store residue on pads May
- 6) have to do additional pumping. Salvaging
at least last two liners.

Printed Name	Signature	Company
<u>Michael Callegas</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Russell Johnson</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Scott G. H. H.</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Allen Johnson's</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Eric Barnard</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Scott M. McBride</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Carl A. Callegas</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Joshua B. B.</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Randy Black</u>	<u>[Signature]</u>	<u>BERS</u>
<u>EUGENE TAYLOR</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Bruce Schreiner</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Lance Schreiner</u>	<u>[Signature]</u>	<u>BERS</u>
<u>Scott Prosser</u>	<u>[Signature]</u>	<u>BERS</u>
<u>RANDY BLACK</u>	<u>[Signature]</u>	<u>BERS</u>

Croley, Charles

From: Cossaboom, Carey C POA
[Carey.C.Cossaboom@usace.army.mil]
To: Welker, Molly
Cc: Croley, Charles; Johnson, Steve
Subject: RE: NE Cape Landfill Cap Decision
Attachments:

Sent: Mon 8/10/2009 1:28 PM

Molly, Chuck,

I spoke with Ron Broyles about my observations from my site visit regarding capping at Site 7, and he concurs that a 2 foot cap is not necessary over the portion of the landfill where no debris occurs. Please finish the cap with the minimal amount of fill without compromising the functional erosion/drainage design. The ADEC can't complain because we have already capped the debris per the Work Plan.

Carey Cossaboom
Project Manager
U.S. Army Corps of Engineers
907-753-2689 (ph.)
907-753-2829 (fax)
carey.c.cossaboom@usace.army.mil

-----Original Message-----

From: Welker, Molly [mailto:mwelker@bristol-companies.com]
Sent: Monday, August 10, 2009 9:05 AM
To: Cossaboom, Carey C POA
Cc: Croley, Charles; Johnson, Steve
Subject: NE Cape Landfill Cap Decision

Hi Carey:

Please send an email to Chuck, Steve, and me today letting Bristol know how you would like us to proceed with the depth of the fill in the remaining areas of the landfill.

If we do not hear back from you we will assume we should continue to cover these areas with a minimum of 2 feet of material.

I will be out of the office until Wednesday.

Molly



08.10.2009 15:59



08.10.2009 16:12

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 048
Date or Time Period: Tuesday August 11th, 2009
Client: USACE, Alaska District

Weather Conditions: Clear in the morning, becoming foggy in the afternoon.

Temp 7:00 am: 39°F

Temp 5:00 pm: 44°F

Winds were calm out of the east, 0-10 mph.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

An area on the east side of the road, where a part of two drums was visible, was covered with fill. The QAR had previously instructed BERS to cover the areas. More fill is being added and track-walked.

Preparatory: No

Initial: No

Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headpace	0	43
Trench PID	Soil Headpace	0	43
Chlor-D-Tect 1000	Oil	0	23
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	6
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	6
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	0	2

Note: AECOM will be changing their injection point from the current injection well to monitoring well 09. A baseline water sample was collected from MW08. Originally, this well was not intended to be in the monitoring network (it has a very slow recharge), but since the injection point is changing, this well will be included.

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐
Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐
Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐
Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒
Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐
Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐
Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐
Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐
Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐
Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐
Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:
Have a safe transition back home. Don't expect the same creature comforts provided in camp.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Materials and work stations are being prepped for demobilization. The crew-members are loading Conexes and performing various tasks in preparation for demobilization. Landfill capping continued. Hauling continued from the borrow area. Fifty-six loads were hauled this day. AECOM injected approximately 300 gallons at the ISCO site. AECOM moved the injection point. A baseline water sample will be collected from MW08. See attached report. 25 people were on-site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack			Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day

			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	16	178.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Aaron Jambrosic	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒


Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- M. Gallegos (DTO 552)	26	575	601
Volvo A40D Rock Trucks – S. McBride (DTO 553)	30	522	552
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Loads of Water Hauled			
Gallons of Chemicals Mixed	300 gallons	1025 gallons	1325 gallons
Gallons of Chemicals Injected	300 gallons	1025 gallons	1325 gallons
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered (Oil/Oily Water)	0 gallons	1170 gallons	1170 gallons
Oily Sludge Recovered	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11
Antifreeze	0	1 gallon	1 gallon
Intact Batteries	0	350 pounds	350 Pounds
Broken Batteries	0	4100 pounds	4100 Pounds

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Comments: Photo 1, looking northwest, shows the slope on the east side of the road where fill was added to cover up drums that were previously exposed. The QAR had instructed BERS to add more fill to cover the drums. Photo 2, looking south, shows an empty rock truck heading to the borrow area.

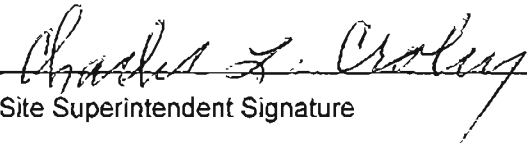
Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.



QC/CSM Signature

2009/05/12

Date



Site Superintendent Signature

8-13-09

Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Tues

Date: 8-11-09

Conducted By: Chuck Cooley

Subjects:

- 1) Work transition between Camps & Tower
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____

Printed Name

Signature

Company

JACK WILLIS	<i>Jack Willis</i>	Bristol
EUGENE TOOLE	<i>Eugene Toole</i>	BERS
Allen Pappis	<i>Allen Pappis</i>	BERS
Maze Thompson	<i>Maze Thompson</i>	BERS
Carl A. Calugan	<i>Carl A. Calugan</i>	BERS
Russell J. Jones	<i>Russell J. Jones</i>	BERS
Michael Gallegos	<i>Michael Gallegos</i>	BERS
Eric Barnhill	<i>Eric Barnhill</i>	BERS
Scott Sch He	<i>Scott Sch He</i>	EMERALD
Scott Peterson	<i>Scott Peterson</i>	ARCUM
Alison Harrison	<i>Alison Harrison</i>	BERSON
Johnny Willis	<i>Johnny Willis</i>	BERS
Michael Toole	<i>Michael Toole</i>	BERS
Bruce Schneider	<i>Bruce Schneider</i>	BERS
Sean McBratney	<i>Sean McBratney</i>	BERS
Jobb Achig	<i>Jobb Achig</i>	BERS
Ken Fitzgerald	<i>Ken Fitzgerald</i>	FLUX
Randy Black	<i>Randy Black</i>	BERS

DAILY FIELD SUPERVISOR'S REPORT

Date: 11-Aug-2009	Day: Tuesday	Field Supervisor: Mark Heaston
Project: NE Cape Phase I ISCO		Project No.: 112642.02
Project Location: Northeast Cape of St. Lawrence Island, AK		

1. Employees

<i>Employer</i>	<i>Employee Name</i>	<i>Hours Today</i>	<i>WBS</i>
AECOM	Mark Heaston	12	112642.02
AECOM	Scott Pittenger	12	112642.02
AECOM	Lance Preuss	12	112642.02
AECOM	Aaron Jambrosic	12	112642.02
AECOM Total Hours Today		48	

2. Work Performed Today

Work performed today included the following;

Repaired the oxidant injections pumps and reinstalled them on the ISCO skid.

Performed and inventory of sample containers on hand and developed a list of bottles needed to complete the sampling.

Prepared a brief summary of observations made yesterday regarding the short circuiting of injection fluids. Held a status update call with Steve Johnson (Bristol) to discuss observations made yesterday regarding the short circuiting of the injection fluids and discuss a path forward.

Continued performing oxidant injections and monitoring in the Phase I ISCO area. Oxidant injections were performed at a low flow rate <2 gpm to determine if injection fluids would continue to short circuit even at low flow rates.

Began purging ICOMW08 in order to collect a baseline sample. The well purged dry and will be sampled first thing tomorrow.

Began preparations to switch ISCO injections from ICOIW01 to ICOMW09.

DAILY FIELD SUPERVISOR'S REPORT

Performed a rough survey of the elevation where the injected fluids were observed to short circuit and the temporary piezometer installed at the bottom of the hill in the wetland (just down from TP1).

3. Remarks

The low flow injections performed today still resulted in the short circuiting of injection fluids the adjacent low lying area. A total volume of approximately 300 gallons of fluid were injected today bringing the total volume injected in ICOMW01 to approximately 1,325 gallons.

During today's status update call with Steve Johnson (Bristol) the decision was made to continue moving forward with the oxidant injections using a different well in order to try and avoid continued short circuiting of the injection fluids and gain additional technology performance data.

After further evaluating site conditions and well construction logs ICOMW09 was selected as the alternate injection point. Prior to initiating injections at ICOMW09 a baseline sample will be collected from ICOMW08. This well had previously been excluded from the MW program due to it's slow rate of recharge, but with the shift in the injection well this location will become a critical ROI evaluation point. The monitoring wells are constructed with PVC screen and riser rather than stainless steel.

The difficulties encountered with the ISCO injection pumps yesterday appear to have been corrected follow reseating of the pump impellers and replacement of the mechanical seal on one of the pumps.

Oxidant solution chemical signatures observed at monitor wells ICOMW05, ICOMW03, ICOMW06 and six during injection monitoring.

On behalf of the contractor, I certify that this report is complete and correct and that all materials and equipment used and all work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Supervisor's Signature

Date



08.11.2009 09:58



08.11.2009 10:29

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 049
Date or Time Period: Wednesday August 12th, 2009
Client: USACE, Alaska District

Weather Conditions: Clear in the morning, becoming foggy in the afternoon.

Temp 7:00 am: 44°F

Temp 5:00 pm: 50°F

Winds were calm out of the east, 0-5 mph.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	23
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	1	7
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	6
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	0	2

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐
Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐
Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐
Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☒
Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐
Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐
Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐
Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐
Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐
Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐
Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Aggressive driving: Stay calm behind the wheel when driving back in town. Watch out for slips, trips and falls at the landfill during seeding.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Materials and work stations are being prepped for demobilization. The crew-members are loading Containers and performing various tasks in preparation for demobilization. The 20' containers are being staged on the beach in preparation for barge loading. Landfill capping continued. Hauling continued from the borrow area. Forty-eight loads were hauled this day. AECOM injected approximately 400 gallons at the ISCO site. AECOM moved the injection point to MW09. A baseline water sample was collected from MW08. See comments Section for additional progress information. Landfill cap placement was completed today. See comments section for additional details. A Bering Air flight arrived at approximately 16:00. Two people left the site. 25 people were on-site this day. See remarks BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.5	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos	1	11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack			Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	16	178.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Aaron Jambrosic	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald	1	1 Day			
Totals	1				

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- Gallegos/Byers (DTO 552)	23	601	624
Volvo A40D Rock Trucks – S. McBride (DTO 553)	25	552	577
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Loads of Water Hauled			
Gallons of Chemicals Mixed	400 gallons	1325 gallons	1725 gallons
Gallons of Chemicals Injected	400 gallons	1325 gallons	1725 gallons
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered (Oil/Oily Water)	0 gallons	1170 gallons	1170 gallons
Oily Sludge Recovered	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11
Antifreeze	0	1 gallon	1 gallon
Intact Batteries	0	350 pounds	350 Pounds
Broken Batteries	0	4100 pounds	4100 Pounds

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

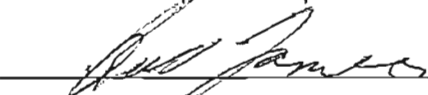
Mike Gallegos (Operator) and Kevin Fitzgerald (Fairweather Medic) left the site today on a Bering Air flight.

Comments: Photo 1, looking southwest, shows MW09 at the ISCO site where the injection pump was set up. Photo 2, looking north, shows the materials staged for seeding/fertilizing.


AECOM moved their injection point to MW09. Initial reaction from the chemical injection was good, but after an additional 250 gallons of fluids was injected, another short circuiting of fluids took place and the fluids started emanating from the same point as previously experienced. This effectively ended the Chemical Oxidation Injection. The AECOM crew began cleanup operations in preparation for the three day sampling event.

The landfill cap placement is complete as of 1800 hrs today. 1155 loads of cap material have been hauled as of end of work today. Grass seeding and fertilizing remains to be accomplished at the landfill site.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

8/13/2009
Date


Site Superintendent Signature

8-13-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 050
Date or Time Period: Thursday August 13th, 2009
Client: USACE, Alaska District

Weather Conditions: Foggy in the morning, mostly cloudy in the afternoon.

Temp 7:00 am: 43°F

Temp 5:00 pm: 50°F

Winds were calm out of the east, 0-5 mph.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	23
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	7
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	6
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	0	2

Note:

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐
Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐
Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐
Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☐
Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐
Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐
Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐
Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐
Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐
Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

The side-by-side will be used for seeding and fertilizing today. Communications are essential during the demobilization process.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Materials and work stations are being prepped for demobilization. The crew-members are loading Containers and performing various tasks in preparation for demobilization. The 20' containers are being staged on the beach in preparation for barge loading. The bucket was taken off the Volvo 330L loader and replaced with forks. Landfill capping continued. The finishing touches are being put on the landfill cap. Fertilizer and seed was spread across the cap surface. After fertilizing and seeding, the landfill is being track-walked again. AECOM spread a neutralizing agent across the ISCO site. AECOM started demobilizing their lab. 23 people were on-site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.5	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack			Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	166.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Aaron Jambrosic	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.)

.

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒


Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- Gallegos/Byers (DTO 552)	0	624	624
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	577	577
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Gallons of Chemicals Mixed	0	1725 gallons	1725 gallons
Gallons of Chemicals Injected	0	1725 gallons	1725 gallons
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered (Oil/Oily Water)	0 gallons	1170 gallons	1170 gallons
Oily Sludge Recovered	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11
Antifreeze	0	1 gallon	1 gallon
Intact Batteries	0	350 pounds	350 Pounds
Broken Batteries	0	4100 pounds	4100 Pounds

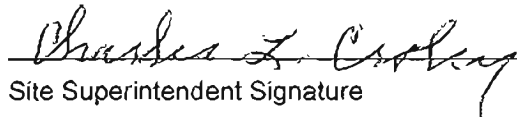
Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Comments: Photo 1, looking southeast, shows the fertilizing and seeding operation in progress at the landfill cap.
Photo 2, looking west, shows the drum Conex with placards attached.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

8/14/2009
Date


Site Superintendent Signature

8-14-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

**ENVIRONMENTAL REMEDIATION
SERVICES, LLC**

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Thursday

Date: 8-18-09

Conducted By: Charles E. Croft

Subjects:

- 1) Communications: The most essential
- 2) thing to take place with safety
- 3) and the demobilization we are
- 4) coming up on.
- 5)
- 6)

Printed Name _____

Signature

Company

EUGENE TUCKER	Eugene Tucker	BERS
JACK WILLIS	Jack Willis	EMERALD
Michael Tucker	Michael Tucker	BERS
Douglas Byers	Douglas Byers	BERS
Scott Smith	Scott Smith	EMERALD
Ally Dennis	Ally Dennis	BERS
Carl A. Calverton	Carl A. Calverton	BERS
Mace Thompson	Mace Thompson	BERS
Eric Brownell	Eric Brownell	BERS
John Adams	John Adams	BERS
Lance Brown	Lance Brown	BERS
John H. Brown	John H. Brown	BERS
Scott Brown	Scott Brown	BERS
Ann Brown	Ann Brown	BERS
John Brown	John Brown	BERS
Robert Brown	Robert Brown	BERS
Randy Brown	Randy Brown	BERS



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DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 051
Date or Time Period: Friday August 14th, 2009
Client: USACE, Alaska District

Weather Conditions: Thick fog throughout the day with periods of rain. Fog clearing during the late afternoon..

Temp 7:00 am: 43°F

Temp 5:00 pm: 50°F

Winds were calm out of the east, 0-5 mph.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	23
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	7
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	6
RCRA Metals, DRO, RRO, PCBs, GRO, BTEX (Final Drum Pad)	EPA6010A/7471, AK102, AK103, EPA8082, AK101, EPA8260B	4	4
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	0	2

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐

Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☐

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:
 Burning: keep your distance. Do not get curious and get up close to check it out.
 Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Materials and work stations are being prepped for demobilization. The crew-members are loading Containers and performing various tasks in preparation for demobilization. Machinery is being cleaned. The 20' containers are being staged on the beach in preparation for barge loading. The landfill cap was track-walked. The landfill cap is complete. Final Drum pad soil samples were collected in the HWAP. See the table above for analytical methods and quantities. Labels were created for drums at the HWAP. AECOM continued demobilizing their lab. A Bering Air flight arrived around 19:00. A local man was medivac'd off-site. Four field crew members left the site. 23 people were on-site this day. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	14.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer	1	11.0	Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie	1	11.0	Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack			Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins	1	11.0	Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill	1	11.0	IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day

			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	15	168.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Aaron Jambrosic	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.).

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- Gallegos/Byers (DTO 552)	0	624	624
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	577	577
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Gallons of Chemicals Mixed	0	1725 gallons	1725 gallons
Gallons of Chemicals Injected	0	1725 gallons	1725 gallons
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered (Oil/Oily Water)	30 gallons (adjustment)	1170 gallons	1200 gallons
Oily Sludge Recovered (Sludge and kitty litter/oil)	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11 (1 Drum)
Antifreeze	9 gallons (adjustment)	1 gallon	10 gallons
Oily Debris	0	2 Drums	2 Drums
Intact Batteries (1 Drum) - Recycle	0	350 pounds	350 Pounds
Ash	1 Drum	0	1 Drum
Broken Batteries (2 totes)	0	4100 pounds	4100 Pounds

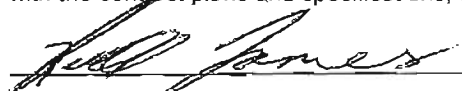
Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Bristol personnel were involved with assistance in a medivac of a local Savoonga resident. The individual became ill while working 10-15 miles east of Northeast Cape. He was brought to the Bristol camp, by other local residents, so that they would be close to the airstrip. The Bristol medic left site two days previously. Bristol provided warm shelter, food, water as prescribed by a physician,

assistance in taking and reporting vital body signs, and providing and assisting in communications between the patient at NE Cape and a PA at the Savoonga Clinic and a Doctor from Nome. When the Medivac flight arrived at NE Cape it carried a EMT, a nurse, and a Doctor from Nome. The patient was housed in the former site medical clinic. Intravenous applications of blood were administered after medical personnel arrived on site. Assistance was given in the bundling and movement of the patient and backboard to the aircraft and loading onto the airplane. The medivac flight left NE Cape approx. 2000 hrs for the flight to Nome and then to Anchorage.

Comments: Photo 1, looking west, shows Connexes staged at the beach. Photo 2, looking southwest, shows part of the landfill cap near completion.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

8/15/2009
Date


Site Superintendent Signature

8-15-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Friday
Date: 8-14-09

Conducted By: Charles Crowley

Subjects:

- 1) Alcohol Burns Drain Pan to Corner
- 2) of Pad. Do not get curious and
- 3) check it out. Heat waves will probably
- 4) be your only indication it is burning.
- 5) _____
- 6) _____

Printed Name

Signature

Company

JACK WILLIS	<i>Jack Willis</i>	Bristol
EUGENE TUCKER	<i>Eugene Tucker</i>	BERS
Mark Thompson	<i>Mark Thompson</i>	BERS
Michael Tuckie	<i>Michael Tuckie</i>	BERS
Carl D Calagan	<i>Carl D Calagan</i>	BERS
Allen Dennis	<i>Allen Dennis</i>	BERS
Kessel James	<i>Kessel James</i>	BERS
Eric Bainhill	<i>Eric Bainhill</i>	BERS
Scott Patterson	<i>Scott Patterson</i>	Alcon
Stef Schell	<i>Stef Schell</i>	EMERCO
John Adams	<i>John Adams</i>	LESS
Bruce Schmeck	<i>Bruce Schmeck</i>	BERS
John Willis	<i>John Willis</i>	BERS
Mark MP McBrat	<i>Mark MP McBrat</i>	BERS
RANDY BLAK	<i>Randy Blak</i>	BERS





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 052
Date or Time Period: Saturday August 15th, 2009
Client: USACE, Alaska District

Weather Conditions: Partly to mostly cloudy with scattered showers. Clear in the evening.

Temp 7:00 am: 43°F

Temp 5:00 pm: 53°F

Winds picked up throughout the day 5-10 mph from the north.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	23
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	7
GRO, Benzene, Naphthalene, DRO, RRO – ISCO Post-Injection	AK101, EPA8260B, AK103, AK103 - Groundwater	5	5
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	6
RCRA Metals, DRO, RRO, PCBs, GRO, BTEX (Final Drum Pad)	EPA6010A/7471, AK102, AK103, EPA8082, AK101, EPA8260B	0	4
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	0	2

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐

Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☐

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:
 Good visibility this morning: don't let it scare you. We will be performing a variety of tasks today.
 Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Materials and work stations are being prepped and deconstructed for demobilization. The crew-members are loading Containers and performing various tasks in preparation for demobilization. AECOM continued demobilizing their lab. Post-injection water samples were collected and should be completed by tomorrow (8/16). The waste drums were loaded into the Conex at the HWAP. Dunnage and placards were packaged as necessary. All drums were appropriately labeled. A Bering Air flight arrived. One person arrived and one person left the site. 20 people were on-site this day. See remarks BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer			Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie	1	11.0	International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers	1	11.0	Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride	1	11.0	Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill			IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day

			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	12	133.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Aaron Jambrosic	1	12.0			
Lance Peuce	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Bull Cook-Robert Nelson	1	1 Day			
Totals	3				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz	1	1 Day			
Totals	1				

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.).

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

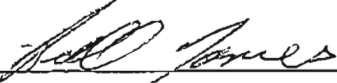
Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- Gallegos/Byers (DTO 552)	0	624	624
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	577	577
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Gallons of Chemicals Mixed	0	1725 gallons	1725 gallons
Gallons of Chemicals Injected	0	1725 gallons	1725 gallons
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered (Oil/Oily Water)	0	1200 gallons	1200 gallons
Oily Sludge Recovered (Sludge and kitty litter/oil)	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11 (1 Drum)
Antifreeze	0	10 gallon	10 gallons
Oily Debris	0	2 Drums	2 Drums
Intact Batteries (1 Drum) - Recycle	0	350 pounds	350 Pounds
Ash	0	1 Drum	1 Drum
Broken Batteries (2 totes)	0	4100 pounds	4100 Pounds

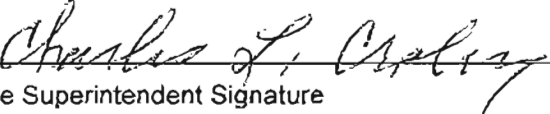
Remarks (include any visitors to project and miscellaneous remarks pertinent to work):
George Mack arrived on a Bering Air flight today. Scott Schultz (Emerald) left the site today.

Comments: Photo 1, looking west, shows the drum Conex, closed with placards in place. Photo 2, looking west, shows the drum Conex, open with dunnage in place.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

8/16/2009
Date


Site Superintendent Signature

8-16-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Saturday
8-15-09

Conducted By: Chuck Cooley

- Subjects:
- 1) Too Much Visibility: Don't get scared,
 - 2) just because you can see over 50'
 - 3) this morning.
 - 4) _____
 - 5) Continue washing equip, filling containers
 - 6) & weighing containers

Printed Name	Signature	Company
<u>Russ James</u>	<u>Russ James</u>	<u>BERS</u>
<u>EUGENE TOLIF</u>	<u>Eugene Tolif</u>	<u>BERS</u>
<u>Carl D. Calagan</u>	<u>Carl D. Calagan</u>	<u>BERS</u>
<u>Sgt. S. G. (R)</u>	<u>Sgt. S. G. (R)</u>	<u>EMERALD</u>
<u>Allen Dennis</u>	<u>Allen Dennis</u>	<u>BERS</u>
<u>James L. Proulx</u>	<u>James L. Proulx</u>	<u>ACU</u>
<u>Shirley Willis</u>	<u>Shirley Willis</u>	<u>BERS</u>
<u>Douglas Byers</u>	<u>Douglas Byers</u>	<u>BERS</u>
<u>Ann-Marie Johnson</u>	<u>Ann-Marie Johnson</u>	<u>ACU</u>
<u>Jack Willis</u>	<u>Jack Willis</u>	<u>Bristol</u>
<u>Sean M. McIsaac</u>	<u>Sean M. McIsaac</u>	<u>BERS</u>
<u>Marc Thompson</u>	<u>Marc Thompson</u>	<u>BERS</u>
<u>Randy Black</u>	<u>Randy Black</u>	<u>BERS</u>





AGS
41,500lbs.
Soil

DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 053
Date or Time Period: Sunday August 16th, 2009
Client: USACE, Alaska District

Weather Conditions: Fog in the morning, clearing early in the day.

Temp 7:00 am: 42°F

Temp 5:00 pm: 56°F

Winds were calm out of the north in the morning. East winds in the afternoon.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☒ No ☐ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	23
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	7
GRO, Benzene, Naphthalene, DRO, RRO – ISCO Post-Injection	AK101, EPA8260B, AK103, AK103 - Groundwater	3	8
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	6
RCRA Metals, DRO, RRO, PCBs, GRO, BTEX (Final Drum Pad)	EPA6010A/7471, AK102, AK103, EPA8082, AK101, EPA8260B	0	4
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	0	2

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐

Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐

Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☐

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☒ No ☐ N/A ☐

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:

Wear proper PPE when working with the fuel ISO's. Wear a harness on top of tanks. Keep communications on the road and watch out for equipment hauling the ISO's to the beach.

Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Camp is being deconstructed. Global Services is taking down tents as they are vacated. AECOM continued demobilizing their lab. Post-injection water samples were collected. AECOM marked areas around the ISCO site that they would like to be surveyed. The fuel containment area was removed and the ISO's were staged at the beach. A Bering Air flight arrived. Three Global Services crew arrived and two personnel left the site. 21 people were on-site this day. See remarks BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	12.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer			Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos			Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride			Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill			IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day

			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	9	100.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	12.0			
Mark Heaston	1	12.0			
Aaron Jambrosic	1	12.0			
Lance Preuss	1	12.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Mark Stevens					
Medic-Kevin Fitzgerald					
Totals					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Camp Crew – Doug Byers	1	1 Day			
Camp Crew – Sean McBride	1	1 Day			
Camp Crew – Steve Byers	1	1 Day			
Camp Crew – Tim Ingalls	1	1 Day			
Camp Crew – George Rowe	1	1 Day			
Bull Cook-Robert Nelson	1	1 Day			
Totals	8				

Emerald Services			Equipment		
Hazardous Waste Specialist-Scott Schultz					
Totals					

SATORI Group			Equipment		
Totals					

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.).

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.).

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- Gallegos/Byers (DTO 552)	0	624	624
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	577	577
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Gallons of Chemicals Mixed	0	1725 gallons	1725 gallons
Gallons of Chemicals Injected	0	1725 gallons	1725 gallons
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered (Oil/Oily Water)	0	1200 gallons	1200 gallons
Oily Sludge Recovered (Sludge and kitty litter/oil)	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11 (1 Drum)
Antifreeze	0	10 gallon	10 gallons
Oily Debris	0	2 Drums	2 Drums
Intact Batteries (1 Drum) - Recycle	0	350 pounds	350 Pounds
Ash	0	1 Drum	1 Drum
Broken Batteries (2 totes)	0	4100 pounds	4100 Pounds

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

Three Global Services crew arrived on a Bering Air flight: Steve Byers, George Rowe, and Tim Ingalls. Jack Willis and Robert Nelson left the site.

Comments: Photo 1, looking southeast, shows the final efforts of the fuel containment removal. Photo 2, looking southwest, shows the camp in early stages of tear-down.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Ad Jones
CQCSM Signature

8/18/09
Date

Charles L. Ciolek
Site Superintendent Signature

8-18-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Sunday
8-16-09

Conducted By: Chuck Croley

- Subjects:
- 1) Tearing Down Fuel Containment: Proper
 - 2) PPE Including Harness
 - 3) More Isos to Beach - Communications.
 - 4) _____
 - 5) _____
 - 6) _____

Printed Name	Signature	Company
<u>Allen Dennis</u>	<u>Allen Dennis</u>	<u>BERS</u>
<u>Carl D. Colgan</u>	<u>Carl D. Colgan</u>	<u>BERS</u>
<u>Mary Thompson</u>	<u>Mary Thompson</u>	<u>BERS</u>
<u>GEORGE MACK</u>	<u>George Mack</u>	<u>BERS</u>
<u>Russell James</u>	<u>Russell James</u>	<u>BERS</u>
<u>Jack Willis</u>	<u>Jack Willis</u>	<u>Bers</u>
<u>Johnny Willis</u>	<u>Johnny Willis</u>	<u>Bers</u>
<u>Ann Jankovic</u>	<u>Ann Jankovic</u>	<u>AKC-24</u>
<u>Mike Hansen</u>	<u>Mike Hansen</u>	<u>AKC-24</u>
<u>Scott Peterson</u>	<u>Scott Peterson</u>	<u>AKC-24</u>
<u>Gene W. M. Brown</u>	<u>Gene W. M. Brown</u>	<u>GLOBAL</u>
<u>Douglas Brown</u>	<u>Douglas Brown</u>	<u>Global</u>
<u>RANDY BLAKE</u>	<u>Randy Blake</u>	<u>BERS</u>





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
(ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 054
Date or Time Period: Monday August 17th, 2009
Client: USACE, Alaska District

Weather Conditions: Fog in the morning, clearing early in the day.

Temp 7:00 am: 42°F

Temp 5:00 pm: 47°F

Winds were D-10 mph from the northeast.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
Initial: No
Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	23
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☐ No ☒ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO – Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO – Water	AK102	0	3
TCLP VOCs TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA8010B/7471A, EPA8260B, EPA8082	0	4
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	7
GRO, Benzene, Naphthalene, DRO, RRO – ISCO Post-Injection	AK101, EPA8260B, AK103, AK103 - Groundwater	0	8
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	6
RCRA Metals, DRO, RRO, PCBs, GRO, BTEX (Final Drum Pad)	EPA6010A/7471, AK102, AK103, EPA8082, AK101, EPA8260B	0	4
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	0	2

Have QA and QC samples been collected in the specified quantity? Yes ☐ No ☐ N/A ☒

Have samples been properly labeled and packaged? Yes ☐ No ☐ N/A ☒

Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☐ No ☐ N/A ☒

Have required amount of QC trip blanks and rinsates been achieved? Yes ☐ No ☐ N/A ☒

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☐

Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐

Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐

Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒

Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐

Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐

Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐

Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:
A lot of work will be taking place in a small space around camp. Be aware of surroundings, especially in the skid-steer.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Camp is being deconstructed. Global Services took down multiple tents and will continue on 8/18. AECOM completed demobilizing their lab. Samples were packaged and shipped via Goldstreak to Tacoma. AECOM and BERS walked the ISCO site and noted areas that are to be surveyed. Two AECOM field crew departed the site on a Bering Air flight. Two drums and overpacks were hauled to the airstrip and staged for future groundwater sampling events. The landfill cap was surveyed by Eco-Land, LLC. Surveying will continue on 8/18 at the ISCO site A Bering Air flight arrived. Two surveyors arrived and two AECOM crew departed. 28 people were on-site this day. See remarks BERS personnel ended shift at 1800 hrs.

8/19/09
ZC
21 people

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	11.0	White Chevy, Extended Cab, Gas, Long Box. w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer. Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer			Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos		11.0	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride			Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill			IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day

			DeWalt Compressor w/engine		1 Day
			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	8 5	100.0	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger	1	6.0			
Mark Heaston	1	6.0			
Aaron Jambrosic	1	11.0			
Lance Preuss	1	11.0			
Totals	4				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile B-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Kevln Fitzgerald					
Totals					

Global Services			Equipment		
Cook-Armando Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Camp Crew – Doug Byers	1	1 Day			
Camp Crew – Sean McBride	1	1 Day			
Camp Crew – Steve Byers	1	1 Day			
Camp Crew – Tim Ingalls	1	1 Day			
Camp Crew – George Rowe	1	1 Day			
Bull Cook-Robert Nelson	1	1 Day			
Totals	8 7				

Emerald Services			Equipment		
Totals					

Eco-Land, LLC			Equipment		
Scott McClintock – Surveyor	1	1 Day	Trimble Base Station	1	1 Day
Jaime Allan – Survey Party Chief	1	1 Day			
Totals	2				

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.).

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.).

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table


PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- Gallegos/Byers (DTO 552)	0	624	624
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	577	577
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Gallons of Chemicals Mixed	0	1725 gallons	1725 gallons
Gallons of Chemicals Injected	0	1725 gallons	1725 gallons
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered (Oil/Oily Water)	0	1200 gallons	1200 gallons
Oily Sludge Recovered (Sludge and kitty litter/oil)	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11 (1 Drum)
Antifreeze	0	10 gallon	10 gallons
Oily Debris	0	2 Drums	2 Drums
Intact Batteries (1 Drum) - Recycle	0	350 pounds	350 Pounds
Ash	0	1 Drum	1 Drum
Broken Batteries (2 totes)	0	4100 pounds	4100 Pounds

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

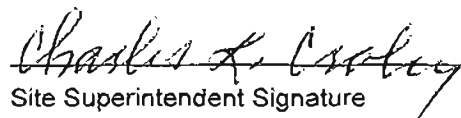
Scott McClintock and Jaime Allan from Eco-Land, LLC arrived on a Bering Air flight this afternoon. Mark Heaston and Scott Pittenger of AECOM left the site.

Comments: Photo 1, looking west, shows camp supplies staged for demobilization and deconstruction. Photo 2, looking south, shows the base station set up by Eco-Land, LLC.

Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.


CQCSM Signature

8/19/09
Date


Site Superintendent Signature

8-18-09
Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date



Bristol

ENVIRONMENTAL REMEDIATION
SERVICES, LLC

N. E. Cape
St. Lawrence Island, Alaska
877-213-5487
877-213-5488
877-207-9112

In-Situ Chemical Oxidation (Phase I) and Intrusive Drum Removal/Landfill Cap

Date: Monday
8-17-09

Conducted By: C. Colley

- Subjects:
- 1) Camp Tear Down: Plot of Activities
 - 2) in light area. No where covered
 - 3) is, especially in backing, limited
 - 4) visibility to the rear especially
 - 5) in skid steer.
 - 6) _____

Printed Name	Signature	Company
Carl O. Calagan		BERS
George Mack		BERS
Russell James		BERS
Johnny Willis		BERS
Allen Dennis		BERS
MARU HARTEN		AFCON
SEAN MT McBRIDE		GLOBAL
Scott Pottinger		AFCON
James L. P. P. P.		AFCON
Douglas Byers		Global
Tim Taylor		Global
RANDY BLACK		BERS





DAILY QUALITY CONTROL REPORT
ENVIRONMENTAL QUALITY CONTROL/QUALITY ASSURANCE REPORT
 (ER 415-1-302)

Contract No. / Delivery Order No.	UPC/Project Title and Location of Work
W911KB-09-C-0013	ISCO and Intrusive Drum Removal/Landfill Cap. Northeast Cape, St. Lawrence Island, Alaska.

CQC Report Number: N. E. Cape 055
 Date or Time Period: Tuesday August 18th, 2009
 Client: USACE, Alaska District

Weather Conditions: Fog in the morning, clearing early in the day.

Temp Low: 34°F

Temp High: 48°F

Winds were 0-10 mph from the northeast.

Quality Control Inspections Performed This Date (Include inspections, results, deficiencies observed, and corrective action.)

Preparatory: No
 Initial: No
 Follow-up: No

Field Sampling and Testing

Has field testing been performed this date?

Yes ☐ No ☒ N/A ☐

Type of Test	Method/Matrix	Quantity of Samples	Total
Trench FID	Soil Headspace	0	43
Trench PID	Soil Headspace	0	43
Chlor-D-Tect 1000	Oil	0	23
Chlor-N-Oil	Oil	0	2

Have Data Quality Objectives been achieved?

Yes ☐ No ☐ N/A ☒

Have Samples Been Collected for Laboratory Analysis?

Yes ☒ No ☐ N/A ☐

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
DRO - Soil (preliminary screening)	AK102	0	4
DRO/RRO, GRO, Benzene, Naphthalene, TOC (ISCO Soils)	AK102/103, AK101, EPA8260B, EPA9060	0	10
PCB, DRO, TCLP Metals, TCLP Benzene (Soil Waste Characterization)	EPA8082, AK102, EPA6010/7471A, EPA8260B	0	12
DRO - Water	AK102	0	3
TCLP VOCs, TCLP Metals RCRA 8, PCBs, Total Halogens, Oil Burn Spec (oil waste characterization)	EPA8260B, EPA6010B/7471A, EPA8082, EPA9056, EPA1020A/9056/8082/6020	0	2

Type of Test	EPA Test Method/Matrix	Daily Samples	Total Samples
TCLP Metals RCRA 8, TCLP VOCs, PCBs (sludge waste characterization)	EPA6010B/7471A, EPA8260B, EPA8082	0	4
GRO, Benzene, Naphthalene, DRO, RRO, Sulfates, Metals – ISCO Water	AK101, EPA8260B, AK102, AK103, EPA300, EPA6020/6010B	0	7
GRO, Benzene, Naphthalene, DRO, RRO – ISCO Post-Injection	AK101, EPA8260B, AK103, AK103 - Groundwater	0	8
BTEX, PAHs, PCBs, RCRA 8 Metals, Ethylene Glycol (Treated Wastewater)	EPA8260B, EPA8270C SIM, EPA8082, EPA6010/7471A, EPA8015M	0	6
RCRA Metals, DRO, RRO, PCBs, GRO, BTEX (Final Drum Pad)	EPA6010A/7471, AK102, AK103, EPA8082, AK101, EPA8260B	1	5
Ethylene Glycol, TCLP RCRA Metals 8, TCLP Benzene (Antifreeze Sample)	EPA8015M, EPA6010B/7470, EPA8260B	0	2

Have QA and QC samples been collected in the specified quantity? Yes ☒ No ☐ N/A ☐
Have samples been properly labeled and packaged? Yes ☒ No ☐ N/A ☐
Have appropriate QC laboratory tests been ordered? (matrix spikes, method blanks, surrogates, reference standards, etc.) Yes ☒ No ☐ N/A ☐
Have required amount of QC trip blanks and rinsates been achieved? Yes ☒ No ☐ N/A ☐

Health and Safety

Worker protection levels this date: Level B ☐ Level C ☐ Level D ☒ Modified Level D ☐
Was any work activity conducted within a confined space? Yes ☐ No ☒ N/A ☐
Was any work activity conducted within an area determined to be immediately dangerous to life and health? Yes ☐ No ☒ N/A ☐
Were approved decontamination procedures used on workers and equipment as required? Yes ☐ No ☐ N/A ☒
Was a Job Safety Meeting held this day? Yes ☒ No ☐ N/A ☐
Were there any "Lost Time" accidents this day? (If YES, attach copy of completed accident report) Yes ☐ No ☒ N/A ☐
Was hazardous waste/materials released into the environment? Yes ☐ No ☒ N/A ☐
Safety Comments: (include any infractions of approved safety plan, and include instructions from government personnel. Specify corrective action taken.)

A Health and Safety Meeting was held today. The following topics were discussed:
Excavation safety at the ISCO site. Watch the swing radius, make eye contact with operator.
Safety signature sheet attached to DQCR.

Work Activities Performed This Date

Specification or Contract Reference	Activity and Location
Drum removal and Chemical Oxidation (Phase 40)	<ol style="list-style-type: none"> The start of the shift for Bristol was 0630 hrs. Camp is being deconstructed. Global Services continues taking down tents and prepping the other weatherports for removal. AECOM purged two monitoring wells. Excavations were opened adjacent to the monitoring wells to aid in future soil sample collection. The ISCO site and other carious areas were surveyed by Eco-Land, LLC. More Conex boxes were transported to the beach and staged for barge loading. The final soil sample was collected at the HWAP containment area. 2+ people were on-site. BERS personnel ended shift at 1800 hrs.

Manpower and Equipment

Labor Classification	Number	Hours	Equipment Type	Number	Hours Used
Proj. Mgr.—Molly Welker			White GMC Crewcab, Gas, Long Box w/gas Service Tank	50-115	1 Day
C.I.H.—Clark Roberts			White Chevy, Duramax Diesel, Crewcab, Short Box w/cover.	50-134	1 Day
Site Supt./SSHO—Chuck Croley	1	13.0	White Chevy 2500, Extended Cab, Gas, Short Box w/diesel Service Tank.	50-137	1 Day
CQCSM—Russell James	1	13.5	White Chevy, Extended Cab, Gas, Long Box, w/black rack	50-142	1 Day
Op./Foreman—Maze Thompson	1	11.0	White Chevy Blazer, Gas	50-166	1 Day
Mechanic—Johnny Willis	1	11.0	White GMC Diesel, (BDBL) Crewcab, Longbed w/white rack	50-169	1 Day
Oiler—Bruce Schneuer			Red GMC, Crewcab, Long Box Diesel	50-171	1 Day
Admin Assistant—Randy Black	1	11.0	Ottawa Yard Goat, 5 th wheel tractor	50-320	1 Day
Bear-guard/Laborer—Eugene Toolie			International S4700 Fuel/Lube Truck	50-205	1 Day
Operator Drum Crew-Allen Dennis	1	11.0	Ford F700 Mechanic Truck w/compressor, Welder, & Hyd Boom	50-206	1 Day
Laborer Drum Crew-Michael Toolie			Kaiser Jeep 6X6 Cargo Truck w/water Tank	50-322	1 Day
Laborer Drum Crew - Doug Byers			Cat 988B Loader w/bucket & Forks	50-505	1 Day
Laborer Drum Crew-Carl Calugan	1	11.0	Cat 160H Motor Grader	50-702	1 Day
Landfill Cap Operator-Jack Willis	1	11.0	Cat 460 TH Extended Boom Forklift	50-806A	1 Day
Landfill Cap Operator Mike Gallegos		<i>CLC</i>	Cat D6T Dozer	NC 27A16095	1 Day
Landfill Cap Operator George Mack	1	11.0	Cat D8N Dozer	51-107	1 Day
Operator- Jeb Adkins			Arctic Cat Side by Side	50-923	1 Day
Landfill Driver-Sean McBride			Arctic Cat Side by Side	50-924	1 Day
Replacement Mechanic-Jerry Jundt			Cat 322BL Excavator	51-207	1 Day
Environ. Sampler-Eric Barnhill			IR Light Tower	52-128	1 Day
Hazardous Waste Specialist-Tyler Ellingboe			IR Light Tower	52-130	1 Day
			Frost Fighter Heater	52-206	1 Day
			IR 60KW Generator	52-210	1 Day
			Volvo 330L Loader/Forklift		1 Day
			Volvo A40D Rock Truck	DTO 552	1 Day
			Volvo A40D Rock Truck	DTO 553	1 Day
			287B Skid Steer	26A15295	1 Day
			287B Skid Steer	25W52289	1 Day
			Compressor w/engine (Mechanics Truck)		1 Day
			Welder (Mechanics Truck)		1 Day
			Compressor w/engine (Fuel/Lube Truck)		1 Day
			DeWalt Compressor w/engine		1 Day

			DeWalt electric compressor		1 Day
			DeWalt electric compressor		1 Day
			DeWalt Generator	Environ #1	1 Day
			DeWalt Generator	Environ #2	1 Day
			Generac Generator 6KW		1 Day
			Zaxis 120 Excavator	CMI-HE1262	1 Day
Totals	<i>800</i>	103.5	Totals		

Earth Tech/AECOM			Equipment		
Scott Pittenger					
Mark Heaston					
Aaron Jambrosic	1	12.0			
Lance Preuss	1	12.0			
Totals	2				

Denali Drilling			Equipment		
Driller – Randy Roberson			Mobile 8-61 Truck Mounted Drill Rig		
Drill Helper – David Cramer					
Totals					

Fairweather			Equipment		
Medic-Jessica Cheatwood			Medical Clinic	1	1 Day
Medic-Kevin Fitzgerald					
Totals					

Global Services			Equipment		
Cook-Armondo Correa	1	1 Day	75 KW Generator		1 Day
Baker-Greg Baldwin	1	1 Day	Camp Facility		1 Day
Camp Crew – Doug Byers	1	1 Day			
Camp Crew – Sean McBride	1	1 Day			
Camp Crew – Steve Byers	1	1 Day			
Camp Crew – Tim Ingalls	1	1 Day			
Camp Crew – George Rowe	1	1 Day			
Bull Cook-Robert Nelson	1	1 Day			
Totals	<i>800</i>	<i>800</i>			

Emerald Services			Equipment		
Totals					

Eco-Land, LLC			Equipment		
Scott McClintock – Surveyor	1	1 Day	Trimble Base Station	1	1 Day
Jaime Allan – Survey Party Chief	1	1 Day			
Totals	2				

Materials Received to be Used on or Incorporated into Site

Instructions Given by QAR to BERS (include names, reactions, and remarks.).

Instructions Given by BERS to Subcontractors (include names, reactions, and remarks.)

Work Progress

Are there any Contractor-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any Government-caused delays or potential finding of fact? Yes ☐ No ☒

Are there any unforeseeable or weather-related delays? Yes ☐ No ☒

Progress Tracking Table

PROJECT SUMMARY TO DATE			
Item	Today's Total (Units)	Previous Total	Project Total
Volvo A40D Rock Trucks- Gallegos/Byers (DTO 552)	0	624	624
Volvo A40D Rock Trucks – S. McBride (DTO 553)	0	577	577
Monitor Wells Drilled	0	9	9
Injection Wells Drilled	0	1	1
Soil Borings Installed	0	14	14
ISCO Drill Cuttings	0	2.2 tons	2.2 tons
Gallons of Chemicals Mixed	0	1725 gallons	1725 gallons
Gallons of Chemicals Injected	0	1725 gallons	1725 gallons
ISCO Test Pits Excavated	0	13	13
Liquid-Containing Drums Recovered	0	182	182
Soil Removed	0 tons	102.5 tons	102.5 tons
Used Oil Recovered (Oil/Oily Water)	0	1200 gallons	1200 gallons
Oily Sludge Recovered (Sludge and kitty litter/oil)	0	950 gallons	950 gallons
PCB Lighting Ballasts Discovered	0	11	11 (1 Drum)
Antifreeze	0	10 gallon	10 gallons
Oily Debris	0	2 Drums	2 Drums
Intact Batteries (1 Drum) - Recycle	0	350 pounds	350 Pounds
Ash	0	1 Drum	1 Drum
Broken Batteries (2 totes)	0	4100 pounds	4100 Pounds

Remarks (include any visitors to project and miscellaneous remarks pertinent to work):

A conference call was held between BERS and AECOM regarding logistics of the 14 and 28 day sampling events.

Pre-final inspections were held for the Drum Removal and Landfill Cap definable features of work. A follow-up was held for the ISCO treatment study.

Comments: Photo 1, looking south, shows the landfill survey in progress. Photo 2, looking north, shows the landfill cap, completed, as it appears 8/18/2009.

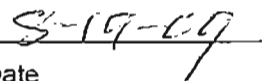
Contractor's Verification: On behalf of the Contractor, I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this period were in strict compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

CQCSM Signature

Date



Site Superintendent Signature



Date

Government Quality Assurance Comments

Was QA testing performed this day?

Yes ☐ No ☒ N/A ☐

Concurs with the QC report?

Yes ☒ No ☐ N/A ☐

Additional comments or exceptions:

QAR Signature

Date

Supervisor's Initials

Date





APPENDIX C

Field Notes



"Rite in the Rain"

ALL-WEATHER
METRIC FIELD

No. 363

BERS

Eric Barnhill

Job # 49028

Northeast Cape

"Rite in the Rain"

ALL-WEATHER WRITING PAPER



Name

Eric Bainhill

Address

111 W. 16th 3rd Floor

Anchorage AK 99501

Phone

907 563 0013

49028

Project

NE Cape Landfill / ISCO Treatment
study

"Rite in the Rain" - a unique all-weather writing surface created
to shed water and to enhance the written image. Makes it
possible to write sharp, legible field data in any kind of weather.

a product of

J. L. DARLING CORPORATION
TACOMA, WA 98424-1017 USA
www.RiteintheRain.com

①

Present

Eric Bernhill
Russell Sames
Aaron Tambrosic
Bob Schlosser

- check in

- Plane delayed until 1230 hours

check in to Norgett Inn

met up with Todd Fischer to
collect stored supplies, etc

1000-

- Dinner

- Supply run

went over plan of attack for ISLO Sampling

9-10-2019

Ed-

(2)

September 11, 2009

Cool
mostly cloudy
in 40°

0700 -

- Safety meet
- day schedule meeting

0815 to Berlin av

Photos

0900 flight

HA 9 - 1, 2

HA 8 - 3, 4

HA 7 silt 5, 6

HA 7 - 7, 8

HA 2 - 9, 10

HA 6 - 11, 12

HA 4 - 13, 14

HA 5 - 15, 16

Sampling -

Soil Samples

HA 9

@ 1200 hours

* 2 methanol vials - dicto Rock Content

09NCMOLSB 29

HA 8

@ 1230 hours

* 2 methanol - high pres

09NCMOLSB 28

(3)

Sept 11, 2009

HA 7 silt

@ 1245

09NCMOLSB 35

HA 7

@ 1330

09NCMOLSB 27

HA 2

@ 1415

2 volumes of methanol used

MS/MSD taken

one GRO/BTEX filter for keten

09NCMOLSB 32

HA 6*

duplicate taken

@ 1445

2 volumes of methanol

dupe @ 1500 = HA 6*

09NCMOLSB 31

Return the bins

④ September 11, 2009 E/S

HA 4

@ 1515

2 methanol used

CRNCMOC SB 34

HA 3

@ 1530

3 methanol used

09UCMOC SB 33

HA 5

@ 1545

3 methanol used

09NCMOC SB 25

Ran purge & other water
through GAA

leave @ 1830

Arrival Nov 1930

9-11-09

E/S

September 12, 2009 E/S

⑤

0800 - up - breakfast

1000 - packing, labeling samples

- went to Todd Fischers to
pick up additional ice. left freezer
in his hands.

- Rented Truck from Aurora in U/
stampede Vehicle Rentals

@ 1400 went to Bering A.R. to
retrieve what was left of our
equipment and goods.

Packaged Items for shipping

1700 - NAC - for shipping

AK Airline - shipped
samples

Alaska Airlines

⑥

September 12, 2009 *EG*

called and left message with
Molly Welker including shipping
time and Air Waybill #.

Molly did not answer phone so I
called Patricia Curi, spoke with
her and relayed all of the pertinent
information.

✓ 1900 dinner / tied up loose ends

9/12/2009

EG

September 13

⑦

No Available time in the
Case today. So we were
not able to return to the
Island to pick up remaining
equipment.

looked for parts to close off
backups on the GAC used to
filter purge / other water.

9-13-09

EG

Return to the line

⑧

September 14, 2009

mostly cloudy
dry, cool
~40°

0800 Breakfast

0900 went to plumbing supply store to purchase plumbing parts to seal off the male and female parts of the 5 gallon bucket GAC.

Shipped GAC on NAC

1500 -

To Bering Air for trip to Northeast Cape St. Lawrence Island for Final Demobilization

@ NE Cape picked up:

- Side by Side rec-vehicle
- 3 55 gallon+ overpau drums
- large metal job box / tool box
- Side by Side wind shield

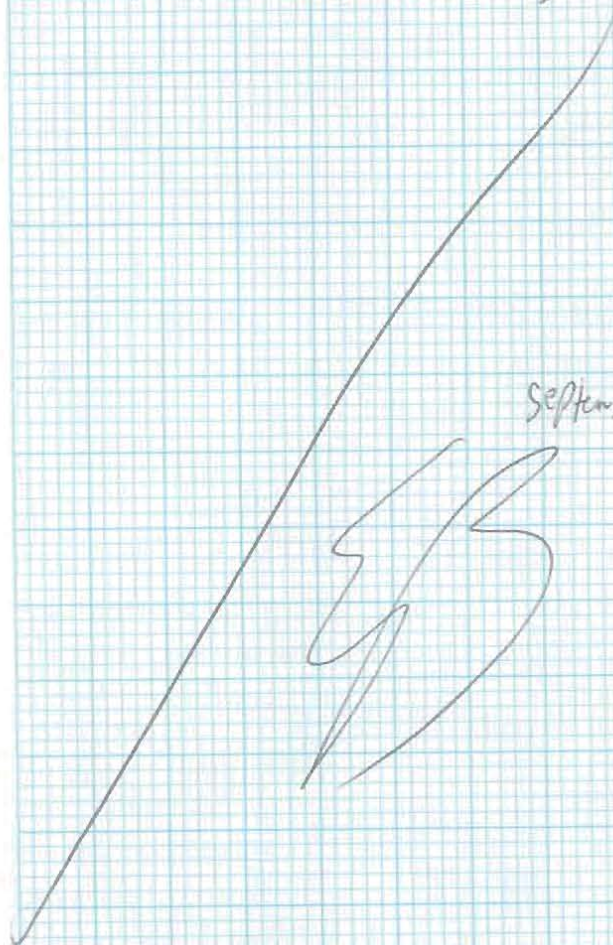
Returned to TOTJ

Bering air is taking the items

⑨

to be shipped to Anchorage
via Northern Air Cargo

September 15, 2009



Eric Barnhill

BRBS

NECARE

SubNumb - 49028



"Rite in the Rain"

ALL-WEATHER

LEVEL

No. 311

1 of 2

Eric Barnhill

111 W 16th Ave

Anchorage AK 99501

907 563 0013

Northeast Cape Low/Fill
4902g

NE CAPS ISCO Treatment

Intrusive down removal landfill cap

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J. L. Darling Corporation.

7-7-09

Intrusive drum removal landfill Cap

daily activities

8-6-a

MONDAY

July 6, 2009 *EB*

@ airport @ 0900 hours

Departed Anchorage AK @ 1100 hours
arrived in Nome AK @ 1235 hours.Departed Nome AK @ 1445 hrs
arrived Northeast Cape @ 1615 hoursToured camp area, work site (landfill/borrow
source/proposed drum pad)
(HWAP)

looked into Environmental Cones

tent office setup

stopped @ 1830 for dinner

started @ 1900 office setup

stopped for the day @ 2200

EB

TUESDAY

July 7, 2009 *EB*

0630 - 0700

Safety meeting, led by Chuck Croley =
fox → Rules; slips trips falls; Proper PPE;
miscellaneous debris; Jess the medic spoke
concerning the forthcoming clinic → OTC meds
available; Hard hat usage; Careful of vehicle
doors and wind;

0700

sample preparation: Drum Pad (Pre)

Need:

- | | | |
|----------------------------------|--------------------|-------------------|
| 1) RCRA METALS | EPAG00A/7471 | 3+1ms/msd + |
| DRO and RRO | 8002 and AK102/103 | 1 dup |
| 80Z wide mouth Jars clear | | |
| ----- | | |
| 2) PCBs | 8002 | 3+1ms/msd + 1 dup |
| 4oz wide mouth clear | | |
| ----- | | |
| 3) GRO/BTEX | | 3+1 dup |
| 4oz wide mouth w/
sodium seal | + methanol | |

TUESDAY
July 7, 2009 Cont 7

EJH

09NC007SB01

@ 0915 hours

Location ID = 007-01

PCBs GRO/BTEX

RCRA Metals

8082

DRO + ARD

No preservative

Methanol

No preservative

09NC007SB01 MS/MSD

Location ID = 007-01

PCBs

RCRA Metals DRO + RRO

8082

EPA 6010A / 7471

No preservative

8082 and AK 102/103

(scale malfunctioned, soil estimated)
on 09NC007SB01

09NC007SB02

@ 1315 hours @ ~~1315~~ hours

PCBs

GRO/BTEX

RCRA Metals DRO + RRO

8082

AK101/EPA
8260 B

EPA 6010A / 7471,

No preservative

Methanol Preserved

8082 and AK 102/103

scale working

Location ID = 007-02

TUESDAY

7-7-09

EJH

09NC007SB03

@ 1330 hours

(09NC007SB03 is a duplicate of 09NC007SB02)

PCBs

GRO/BTEX

RCRA Metals DRO/RRO

8082

AK101/EPA
8260 B

EPA 6010A / 7471

No preservative

Methanol
Preserved

8082 and AK 102/103

No preservatives

Location ID = 007-02

09NC007SB04

@ 1345 hours

PCBs

GRO/BTEX

RCRA Metals DRO/RRO

8082

AK101/EPA
8260 B

EPA 6010A / 7471

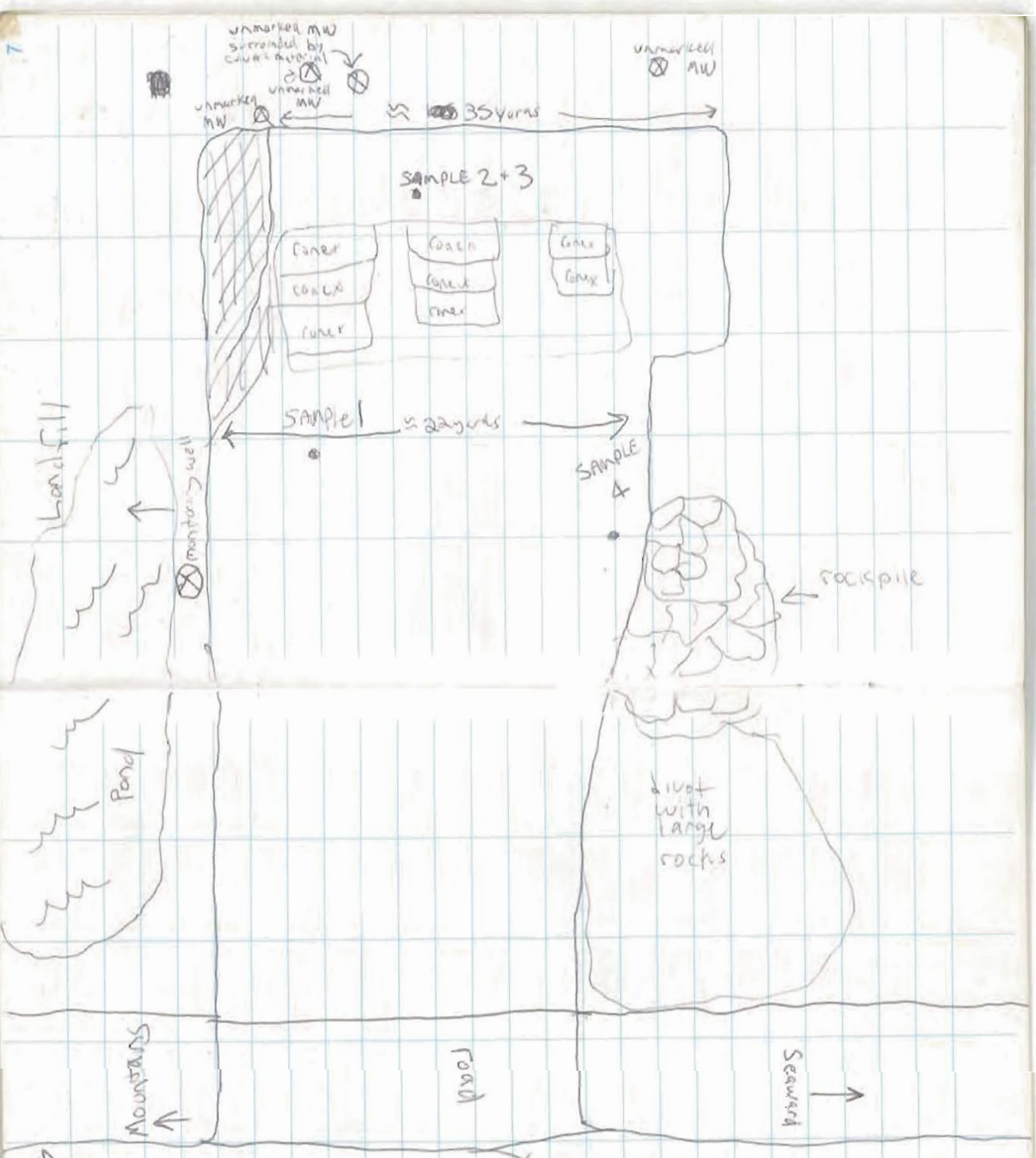
No preservative

Methanol
Preserved

8082 and AK 102/103

No preservatives

Location ID : 007-03



6 TUESDAY
JUL 7, 2009 SP

7-7-09 *EB*

assisted Russell James with staking
of pits at landfill site

Cleaned and organized environmental Conex

COC Form,

Sample log

plane was meant to come to drop off individuals
and was to take samples from HWAP (dumped)
weather prohibited plane from coming.
samples remain in refrigerator

stopped @ 2045

EB

7-8-09 *EB*

0630-0700

Safety Meeting

Preparing Cooler +

Labeling of samples for plane.

plane arrived @ 1000 hours.

put cooler on plane

Preparatory plane meeting - Led by
CQCSM Russell James

Access database creation

Marking data in 007
walking landfill

stopped @ 1900 hours

EB

THURSDAY

7-9-09 E.H.

0630

Safety meeting

laser level mapping

Map Notes

1. ~~244~~ 240.5 PH43 → ^{Rock} Apex
2. 249
3. 193

Walked entire landfill and collected GPS data with Russell James to ~~make~~ make a map of the landfill with relative distances

Stopped @ 1915 hrs



FRIDAY

7/10/09 E.H.

0630 start → Safety Meeting

Sampled Camps treated water supply.

Used SGS bottles that were supplied to Global services at the direction of Chuck Coley.

let water in sink run for 5-10 minutes, filled bottles to mark directed in sampling instructions

Filled out lab provided test specific COC.

put down Molly Welker as ~~Mass~~ contact for lab to get a hold of with results. Also lab technician Tamara Rentz has my contact information. [tamara.rentz@sgs.com]

lab sent off on Bering air at approximately 1500 hrs. Hand carried by Tyler Ellingboe of Bristol.

FRIDAY
7-10-09 (continues) *gs*

toured landfill area with CQCSM
 and took progress area photos of
 road, culvert.

Viewed HWAP. Containment areas built.

Toured MOC. AECOM setting up
 study area.

Relayed water treatment sample
 information to Molly Walker

stopped at 1900

gs

SATURDAY

7-11-2009

0630 safety meeting

Preparatory Phase Meeting for the
 In Situ Chemical Oxidation study at
 former Main operations Complex

Reading work plans.

Site visit of AECOM test pits
 being dug by excavator.
 Strong Petroleum odor.

Site visit with CQCSM to HWAP

Crew installing silt fence

gs

SUMMARY

7-12-09 EP

0630 safety meeting

- Read Waste Management for Chuck Croley to determine the proper disposal method for sorbent pads; shipping or burning.

The waste management plan stated that the pads are to be shipped to emerald waste handling in WA.

- Loaded Emerald. Conex with Personal Protective Equipment (PPE) @ HWAP
- Located splash guards for drum hose out operation

QUESTIONS FOR BRISTOL CHEMIST / SAMPLES SUPPORT

- LALID, Now use "nitro" instead of "OOT"
 - Add Quik # to COC -
 - * Test America Quik # 58002638
 - Custody seal on each Sample Jsr?
- Checked on progress at land fill + AECOM site progress similar to previous day

SUMMARY 7-12-09

[4x6 excavation water] [leaking drum] [Scott Schultz]

- Emerald Representative spearheaded a test run of removing an open leaking Corroded 55 gallon drum.
- The drum was open in one of the ~~first~~ pits and was leaking oil onto the soil.
- Oil from the open drum was removed using an electric pump. A small amount of oil was removed. There was an amount of thick sludge/oil left in the can that could not be siphoned off. The electric pump was used to siphon ~~water~~ ^{oil} from the excavation pit; the power of the pump necessitated sectioning off a large amount of water with a lesser amount of oil. Water/oil mixture was deposited into a 55 gallon drum.
- Schultz dabbed the excavation floor bottom with sorbents. Sorbents were placed in a yellow 55 gallon drum to be used for additional created sorbent waste.
- Two 55 gallon drums with oil water mixture were Chlor detected - field screened and found to be not chlorinated oil.

SUNDAY

7-12-09 EJB

- drums of non hazardous oil water mixture were marked with Non hazardous materials stickers.



7-13-09 EJB

0630 health and safety meeting

- Randed up boot wash and extra PPE for HWAP
 - began drum removal at metal anomaly at SE edge of the landfill on south side of the road.
 - began on NE end of the anomaly
 - took out a number of dry empty drums and ~ 9 drums with a measurable amount of oil/oil sludge mixture. Approximately 175 gallons of recovered oil to date
 - 1 battery recovered
- 1900 stop



TUESDAY

7-14-09

0630 hours

- Health and Safety meeting
 - wind, equipment - keep clear, drive slow
- Drum removal @ 007 site continues of SE section. Anomaly across road from main landfill.
- Boat wash set in place, filled, Alconax and boat brush and hand brush in one and clear water and hand brush in rinse pond.
- operations on SE anomaly approximately 75% done; drum removal operations. Capping strategy being determined
- Closed up area

STOP @ 1915 hours

EPR

WEDNESDAY

7-15-09

0630 hours

- Health and Safety meeting
 - Continued diligence in safety concerning wind, vehicles
- Continued excavation of SE hillside. Retrieved one additional drum.
- Excavation concluded - no additional drums past first found drum.
- Excavator shaping hill
- Confusion as to whether or not drums found and empty are to be crushed and placed. Confusion cleared up. Drums crushed
- Drum washing operation began.
 - ~ 18 drums to wash.
 - hooked up hot/cold/pressure washer to DeWalt generator.
 - Sprayer leaks - needs occasional tightening
 - Air chisel seems to be the best way to cut open drums for cleaning

Wednesday 7-15-09

- QAR Representative asks for signage for the HwAP and asks about where drum logs and HwAP inspection forms are held. Drum log on site; less than one week, so inspections have not been performed. Blank inspection forms available for initial inspection
- HwAP Signs placed on Corex facing road
- Cleaning operation done for today.
- Metal anomaly on crest of landfill began. Drums of thick oil being found.

stop @ 1900 hours

Thursday 7-16-09

0630

Health and Safety meeting

- Rock trucks changing traffic pattern; fill/rock dumping occurring at SE Anomaly; continued diligence with wind bugs; slow down on roads, they're deteriorating.
- Continued probing and drum pulling at landfill crown anomaly's

1900 hours stop

FRIDAY

7-17-2009

0630

health and safety meeting

- Drum pulling

- pulling drums from NE anomalies.
noticed fox den with mothers and
approximately 7 kits. Went forward with
drum excavation at a slow deliberate
pace. Eventually kits, one at a time
scattered from the excavation.

Female fox returned and I halted operations
for approximately 1 hour to allow female fox
to investigate and round up kits.

- Drum operation continued. Some kits
returned. Ultimately drum crew and
operator believe all of the kits made it out
of the den with their mother

- Preparatory phase meeting for ISCO site

Drum excavation continues

stopped @

1900 hours

SATURDAY

7-18-09

0630

health & safety

- drum pulling

7-19-09

0630 heave on Surface

drum pulling

Monday

7-20-09

0630 Safety meeting

drum pulling @ landfill excavation

Plane set to come → weathered out
AGCOM Samples

09MCMC SBO1 @ 1445 → AK102 → MOC01

09MCMC SBO2 @ 1500 → AK102 → MOC02

09NC MOC SBO3 @ 1510 → AK102 → MOC03

09NC MOC SBO4 @ 1520 → AK102 → MOC04

Correspondence with PM regarding water use re slope drums
Correspondence with PM regarding
difficulties with crushed drums that
are oily/sludge filled. Very difficult
to clean out.

PM - Maly Wolken, suggested crushed drums
be given a cleaning Uta & good wiped down
of gross debris and filled with absorbent
such as kitty litter or floor dry oil cleanup particles
Told QAR - QAR running it by USACE
Colleagues in the office

E62

Tuesday

7-21-09

0630 safety meeting

Drum pull - @ landfill excavation

AECOM Samples

Sample ID	Time	Analyses	loc ID
09NCMA GW01	@ 1800	→ AK102	→ MOC05

Prepared AECOM water samples for Goldstreaking.

Plane did not come due to weather on the 20th. Arrived today



Wednesday

7-22-09

0630 safety meeting

Drum pull @ landfill excavation

AECOM	Sample ID	Time	Analyses	LOC ID
09NCMA	GW02	→ @ 1515	→ AK102	→ MOC06

Thursday

7-23-09 ~~EP~~

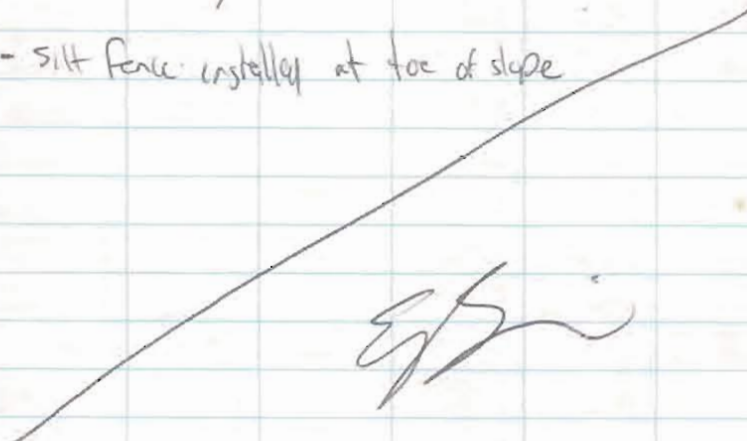
0630 health and safety meeting

Dum fill @ landfill excavation

AE com sample ~~0630~~ 0630 @ 1715 → AMP2
 received word from Mike Utley
 that AECOM samples of water
 could be sent to Anchorage lab.
 Mr. Utley stated that this was a
 one time only deal, and that
 future requests must be made.

These samples were given permission
 to be tested at the Anchorage lab
 because they weren't for closure.

- silt fence installed at toe of slope



EP


Friday

7-24-09 ~~EP~~

0630 health and safety meeting

Drum removal @ landfill excavation

- water samples from AECOM to be
 sent to Anchorage lab when weather
 breaks,
- Floor dri (oil absorbent) filled
 drums being put back into landfill.
 Looked good.



EP

Saturday

7-25-09 EP

0630 Health & safety

video on pig heart defibrillation

Drum removal @ landfill excavation

-SENT AECOM water samples

09 NCMOGW 01, 02 & 03 for

DRO (AN 102) analysis.

EP

Sunday

7-26-09

0630 health and safety meeting

~~video on pig heart defibrillation~~ EP

drum removal from landfill excavation

EP

MONDAY

7-27-09

0630 Health and Safety meeting

Drum removal - landfill excavation

- drum removal
- battery removal

- SITE SUPERINTENDENT Church

Cooley inquired about sampling area of a minor hydraulic fluid spill. Spill occurred last week. Vehicle that was not operable became operable again and is now moved.

Surveyed office chemists and PM as to proper sampling. PM at Bristol office contacted ADEC and the state said that the area needed to be tested with a PID. Once results are relayed to the state, further action, if any necessary, will be relayed to Bristol.

EJW

TUESDAY

7-28-09

0630 Health and Safety meeting

Drum removal - landfill excavation

- drum removal
- battery removal

Butteries

11 (eleven)

Drums removed to be cleaned

17 (seventeen)

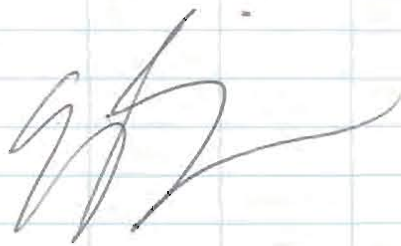
EJW

WEDNESDAY

7-29-2009

0630 health and safety meeting

- Drum removal operation at landfill excavation
- drums removed - oily/sludge
- batteries removed



7/30

0630 health and safety meeting

Drum removal operation

- oily drums removed
- batteries removed

Batteries

III 7

Drums

III IIII IIII 19

Clarification on drum sampling of oil and
oily sludge from Bristol employee
Tyler Ellingboe



Friday
July 31, 2009 45

0630 health and safety meeting

Drum Removal at Landfill Excavation

- drum removal
- battery removal

- ADEC gave notification that Turbidity is not an issue for releasing Contaminant water to the tundra in the future

Drums
~~1111~~ (11)

Batteries
~~1111~~ (7)

[Signature]

SATURDAY
August 1, 2009

0630 health and safety meeting

Drum Removal at Landfill Excavation

- drum removal
- battery removal

Waste characterization sampling:
Containerized Soil Characterization

09NC007BW01 1) PCBs/DRO/TCLP REM metals
@ 0845 hours 2) TCLP Benzene
WMXUG024 007-05

09NC007BW02 1) same
@ 1100 hours 2) same 007-06
WMXUG025

09NC007BW03 1) same
@ 1115 hours 2) same 007-07
WMXUG017

Saturday

August 1, 2009 EB

09NC007 BW04 ← [duplicate of 09NC007 BW03]

@ 1130

WMXU 6017

1) same
2) same

100 IP 007-07

0

09NC007 BW05

1) same
2) same

007-08

@ 1315

WMXU 6095

09NC007 BW06

1) same
2) same

007-09

@ 1330

WMXU 6025

EB

SUNDAY

August 2, 2009

health and safety meeting 0630

Drum removal from landfill excavation

- drums
- batteries

Drums

NHT (10)

Batteries

NHT (5)

EB

Monday

August 3

0638 health and safety meeting

Drum removal from landfill excavation

- drums
- batteries

- Sample shipping preparation

- water sampling of water containment area
area was due to be sampled at end of project,
but water containments were filling up to
the point of needing early sampling

09NC007WA01

@ 1000

1. BTEX
2. PAHs
3. PCBs
4. RECA 8 metals
5. Ethylene Glycol

LOCSD00711

09NC007WA01 MS(MS)

@ 1000

1. same
2. same
3. same
4. same
5. same

007-12

09NC007WA02

@ 1015

- (dup of 01)
1. same
 2. same
 3. same
 4. same
 5. same

007-13

Monday

August 3, 2009

last day of drum excavations.

- fresh and drums ran out near truck
on hauling road. area was GPS'd. ended
just prior to road, no need to dig up
road, metal anomaly covered by
excavation.

shipping AE COM samples
and Containment area water
samples

- Plane left at ~ 1945

stop @ 1945

13.25

~~Monday~~ Tuesday
August 4, 2009

0630 health and Safety meeting

HWAP

- organization
- oil Chlor-D-test

Accumulation drums #:

7, 10 + 11 gave borderline results.
* have Emerald representative re-check
and possibly sample to send to the lab.

Containerized Waste Sampling
Continued:

09NC007BW07

@ 1700 hrs

WMXU 6141

- 1 PCBs
- 2 DRO
- 3 TCLP RCRA Metals
- 4 TCLP Benzene

09NC007BW08

@ 1730

WMXU 6069

- 1 PCBs
- 2 DRO
- 3 TCLP RCRA Metals
- 4 TCLP Benzene

• STOP at 190

ES

wednesday ES
August 5, 2009

0630 health and Safety meeting

- 4 wheelers traffic
- Continuing hauling
- Risk truck awareness

- Sample shipping preparation

- labeling creation
- cleaning jars
- labeling
- sample packaging

- HWAP inspection

- cleaning tanks
- batteries

- GPS low spots on Cap

- Plane late - sample heading out
possibly later even in

Waste Characterization sample

from all 7 Conex's sent to
Test American Taconox.

- lab contacted Molly Welken saying
that 1 of the 4 coolers appeared
to be opened and did not have
a custody seal.

The cooler in question had ~~not~~^{is}
~~not~~^{is} been closed using Custody Tape.
and had been signed.

11.25 now

25

August 6, 2009 Thursday

0630 health and Safety meeting

- new people in camp
- watch for locals
- watch out for 4 wheelers

Preparatory Meeting for ISCO
injection phase of the ISCO
Study

- Chemicals - oxidants
- Paper PPE
 - goggles
 - shields
 - Saranex/Tyvek - possibly Saranex
 - helmet
- Barriers

- Fight Fires with water
only. NOT EXTINGUISHERS!

August 6

Sludge Sampling → drum waste

sample
8 oz x 2

sample
8 oz x 2

Drill → ~~Cont.~~ Containerized waste

1802 sample x 3
1402

1802
1402 dip x 1

Sludge Composite - Kitty litter ^{oil} Contaminated ~~sludge~~
D-4
+ @ 1545
D-16

Isco Drill Cutting Composites

#1 consists of drum 142 + 344

@ 1645

#2 consists of drum 56, 7, 8

@ 1700

#3 ^{#2} Duplicate
consists of drum 56, 7, 8

@ 1715 DUPLICATE OF #2

#4 consists of drums 9, 10 + 11

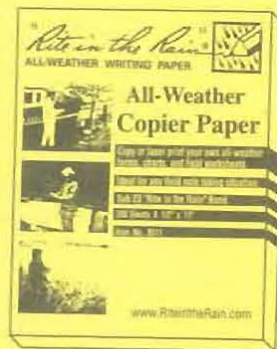
@ 1730

~~Continued~~ ~~in Book 2~~
Continued
in Book 2

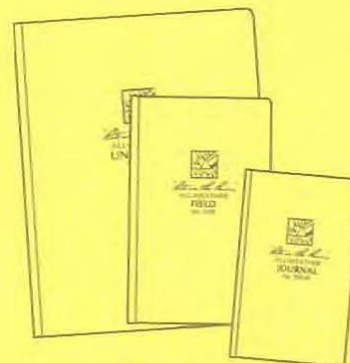
WMXU 6141 (11)
@ 1700 hours

WMXU 6065 (12)
@ 1730 hours

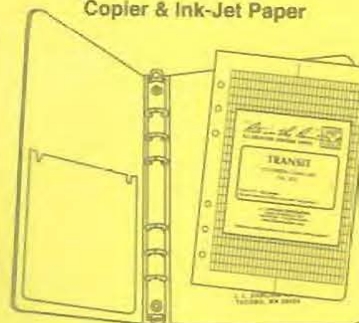
"Rite in the Rain"
ALL-WEATHER WRITING PAPER



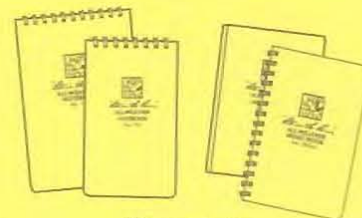
Copier & Ink-Jet Paper



Bound Books



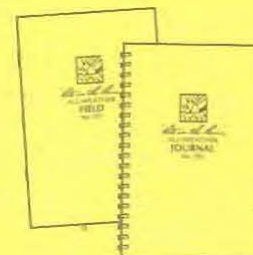
Loose Leaf / Ring Binder



Memo Books



All-Weather Pens



Notebooks

www.RiteintheRain.com

CM

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8 32281 31111 9

Eric Barnhill
BERS

NE CASE

Job Number 49028



"Rite in the Rain"

ALL-WEATHER

LEVEL

No. 311

1 of 2

Eric Barnhill

BERS

NE CAPE

Job Number 49028



"Rite in the Rain"

ALL-WEATHER

FIELD

No. 351

intrusion from removal landfill cap

CONTENTS

PAGE	REFERENCE	DATE
	IVE CARE ISIO Treatment	8-6-09 (cont)
	Intrusive dom removal last fall	↓
	Cap daily activities	8-14-09

THURSDAY
August 6, 2009

DRUM WASTE CHARACTERIZATION

Sample ID 09NC007DW01

@ 1615

Analysis PCBs 882 / TCLP VOCs 8260B /

TCLP metals RCRA 86010B / 7471A

Total halogens EPA 9056 /

Oil burn spec (ignitability, total halogens, PCBs, and metals)

EPA 1026 A, 9056, 8082 and 6020

Sample ID 09NC007DW02 (duplicate of 01).

@ 1630 Same analysis as above

~~Sample ID 09NC007DW03~~ EIR

Sample ID 09NC007DW03

@ 1545

TCLP metals 6010/7471A / TCLP VOCs EPA 8260B (1400)

PCBs EPA 8082 (1-500)

Sample ID 09NC007BW04 (duplicate of 03).

@ 1600

duplicate - analysis same as above

"True" oily sludge

FD 09NC007DW05 @ 1730

FD 09NC007DW06 @ 1745 [dup of 5] analysis as above

FSCO drill cuttings - CONTAINERIZED WASTE

09NC007BW09

@ 1645

(FSCO drill cuttings)
(drums 1, 2, 3, 4)

Analysis

PCBs - EPA 8082

DRO - AK 102

TCLP RCRA metals - EPA 6010/7471A

TCLP Benzene - EPA 8260B

09NC007BW10 (drums 5, 6, 7, 8)

@ 1700

Analysis - same as above

09NC007BW11 (duplicate of 09NC007BW10)

@ 1715

analysis - same as above (drums 5, 6, 7, 8)

09NC007BW12

@ 1730

(drums 9, 10, 11)

Stop @ 1815

Friday
August 7, 2009

0630 Safety Meeting

- only Sluggo label prep
- Kitty litter contaminated w/oil label prep
- Chlor-D test fail oil label prep
- COC prep
 - Sample labeling
 - Sample packaging

- Spoke with Lab PM (Terri Torres) concerning proper sampling containers for Antifreeze Sampling

Ethylene glycol \rightarrow EPA 9015 M \rightarrow 1 Ltr unpreserved

TCLP RCRA Metals \rightarrow EPA 6010B/7470 \rightarrow
 \rightarrow 250 poly unpreserved

TCLP Benzene \rightarrow EPA 8260 B \rightarrow 3 Vials HCl preserved

09 NC007 DW 07

@ 1700

Ethylene glycol \rightarrow EPA 9015 M

TCLP Benzene \rightarrow EPA 8260 B

TCLP RCRA Metals \rightarrow EPA 6010B/7470

09 NC007 DW 08

duplicate of

@ 1715

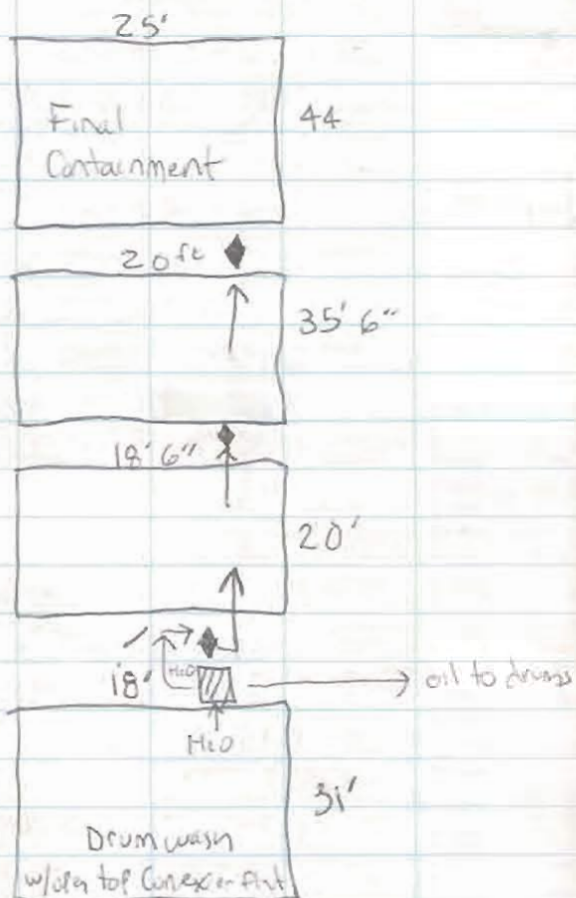
Containment water
pH 7.02

231

OBS 2x8oz oil can spec
(12 hrs)

8-8-09

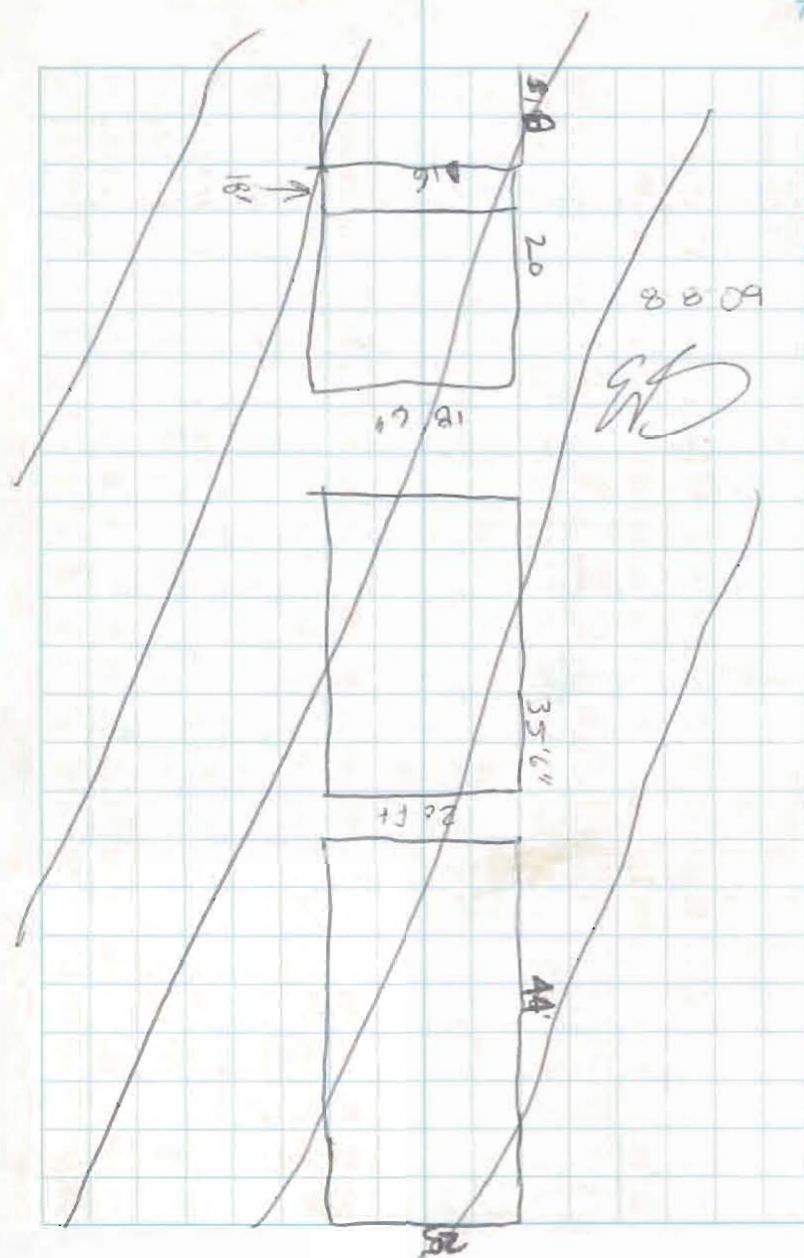
HWAP Water/oil reclaim area



▨ - oil water separator

◆ - water scrubber

Entrance to
HWAP



H₂O sampling - contaminant

Analysis

09NC007WA-03
@ 1700

EPA 8082
EPA 6010/7417A
EPA 8015M
EPA 8260B

09NC007WA⁰³MS/MSD
@ 1700

EPA 8082
EPA 6010/7417A
EPA 8015M
EPA 8260B

09NC007WA-04
@ 1715

EPA 8082
EPA 6010/7417A
EPA 8015M
EPA 8260B

stop @ 1830

start 1845 → 1945

August 9 2009

0630 Safety Meeting

- Sample packaging of second containment area sample
- Re-packaging of AECOM samples and 007 Sludge / Kitty litter contaminated with oil / Hot oil drum samples. Security aviation plane did not come Saturday due to fog, so packaging samples were re-packed.
- Mapping of Site 9 possible land fill.
- Vehicle cleaning

August 10, 2009 ^{SS}

0630 Safety Meeting

- Sample log
- Photo log

- Site = 007/MOL

SS

August 11, 2009 ^{SS}

Need for Accn	HAVE	need for AZO
60 HCl - 1 liter	32	0
10 4oz Septum	18	6
10 8oz	24+33	
4 sets trip blank	25 ^{120 GSOV} included	
14 temp blanks	24	
14 cooler		

ORDER

- Logs
- reconnaissance of suspect sites

SS

August 12 / August 13

0630 Safety meeting

- Photo log
- Sample log

Beach - reconnaissance of suspect sites including 7 Seal Birds. Investigated a reported

4/5

11. Shors

August 14, 2009 E/S

0630 Safety

- Camp de-mobilization
- Paperwork Cleanup

- Water impoundment - final HWAP (Post) Pad Sample

DRUM PAD SAMPLES

09NC007 SB05

@ 0945

- ANALYSES
1. RCRA metals DRO/RRD
 2. PCBs - EPA 8081
 3. GRO/BTEX - AK101/EPA 8260B

(Schmidt
Conex's @ HWAP)
GPA 6010A/7471, 8082
on 11/12/103

09NC007 SB05 MS/MSD

@ 0945

ANALYSIS

- ANALYSES
1. RCRA metals DRO/RRD
 2. PCBs
 3. GRO/BTEX

8/14/09 ^{EB}09NC007 SB06 (Duplicate of
09NC007SB05)

@ 1000 hrs

1. RCRA metals DRO/RRO
2. PCBs
3. GRO/BTEX

09NC007 SB07

@ 1015 (on driveway)

1. RCRA metals DRO/RRO
2. PCBs
3. GRO/BTEX

Environmental Conex -

- Prepared sample bottles for R-James to finish water treatment sample of under containment area

- Flight home to Ambler

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...for outdoor writing people."*



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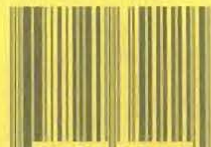
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ALL-WEATHER

FIELD

No. 353N

BERS

Russell James

Job # 49028

Northwest Cape

"Rite in the Rain"
ALL-WEATHER WRITING PAPER



Name Russell James

Address 111 W 10th Ave Apt. 1
Anchorage, AK 99501

Phone (907) 563-0013

Project Northeast Cape

BERS Job # 49028

Day 28 ISCD / Future Site Investigation

Book 1 of 1

9/10/09 - 9/14/09

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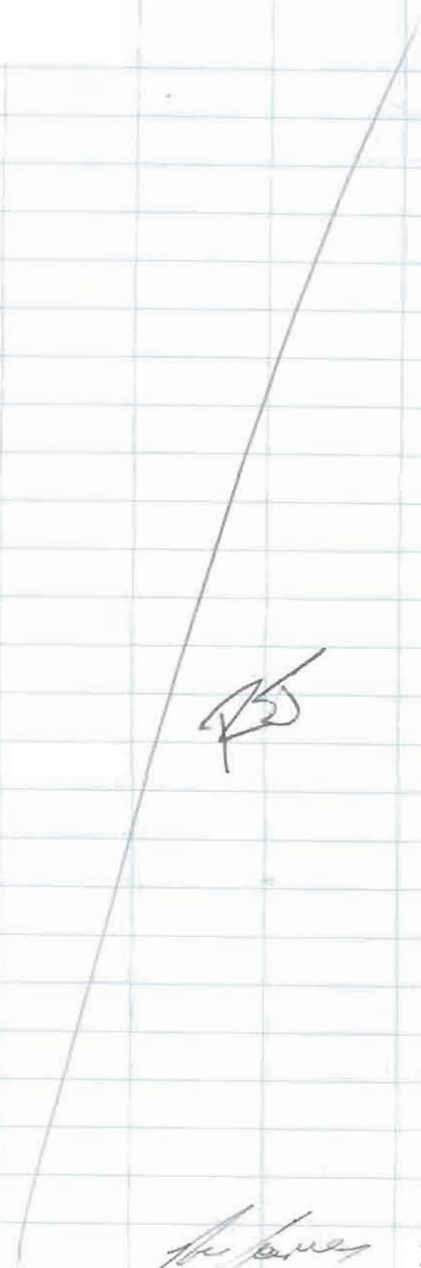
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PAGE	REFERENCE	DATE
1	Travel to Nome - Prep	9/10
3	NE Cape Site Investigations	9/11

- 9/10/2009 Thursday NE Cape Jet # 49028
 55°F - 60°F Mostly Cloudy
 Objective: Travel to Nome. Prep for day 28
 Sampling event at NE Cape
- Arrive at ANC airport 0930
 - Plane delayed, board @ 12:30
 - Arrive in Nome ~14:30
 - Gather supplies from Todd Fisher
 - Travel to Boeing Air and organize gear for tomorrow's flight to NE Cape
 - Call Floyd in Seward to arrange a weather update for tomorrow morning from Eugene in NE Cape
 - Call David Olsen to confirm the flight and inform him that we will have 6 people plus gear.
 - Dinner ~18:00
 - Buy groceries for tomorrow's lunch
 - Discuss plan of action with:
 Eric Barnhill, Aaron Tamborini and Bob Schlosser
 - Call Scott McClintock - Leave message regarding tomorrow's flight to NE Cape
 - End 20:00 (12)

FS

David Jones 9/10/2009



James 7/10/09

Friday 9/11/2009 NE Cape 49028

Objective: Day 28 Soil-Groundwater Sampling

- Russell James, Eric Bernhill, Aaron Jambrosic, Bob Schlosser
- Depart Nome 09:00 for NE Cape
- Arrive NE Cape ~ 09:45
- AS & BS begins pugging MW08 ~ 10:00
- BS & EB make 2nd trip to 150 site
- Surveyors set up base station and walk to control point near site 007
- Begin MOC Creek investigation/survey ~ 10:30
- Take photos of concrete outflow 1032 - 1037
- Probing ground w/lathe around outflow - I can stick the lathe ~ 8-10 inches deep into the surrounding sediment
- Photo 1053 shows the lathe almost 2 feet into ground where the channel from the western and Eastern areas Merge in the open field near where the pond might be. Note, the Pond is dry today

James 9/11/09

1054-1060 show a series of photos looking from south and then panning west to North. 1060 is looking North downgradient and shows an overview of the drainage

1061-~~1068~~¹⁰⁶⁹ show 180° pan looking South to North from high spot on East side of drainage. Photos pan S→W→N

1070-1077 - From West bank Pan S→E→N across drainage from Eastern high point

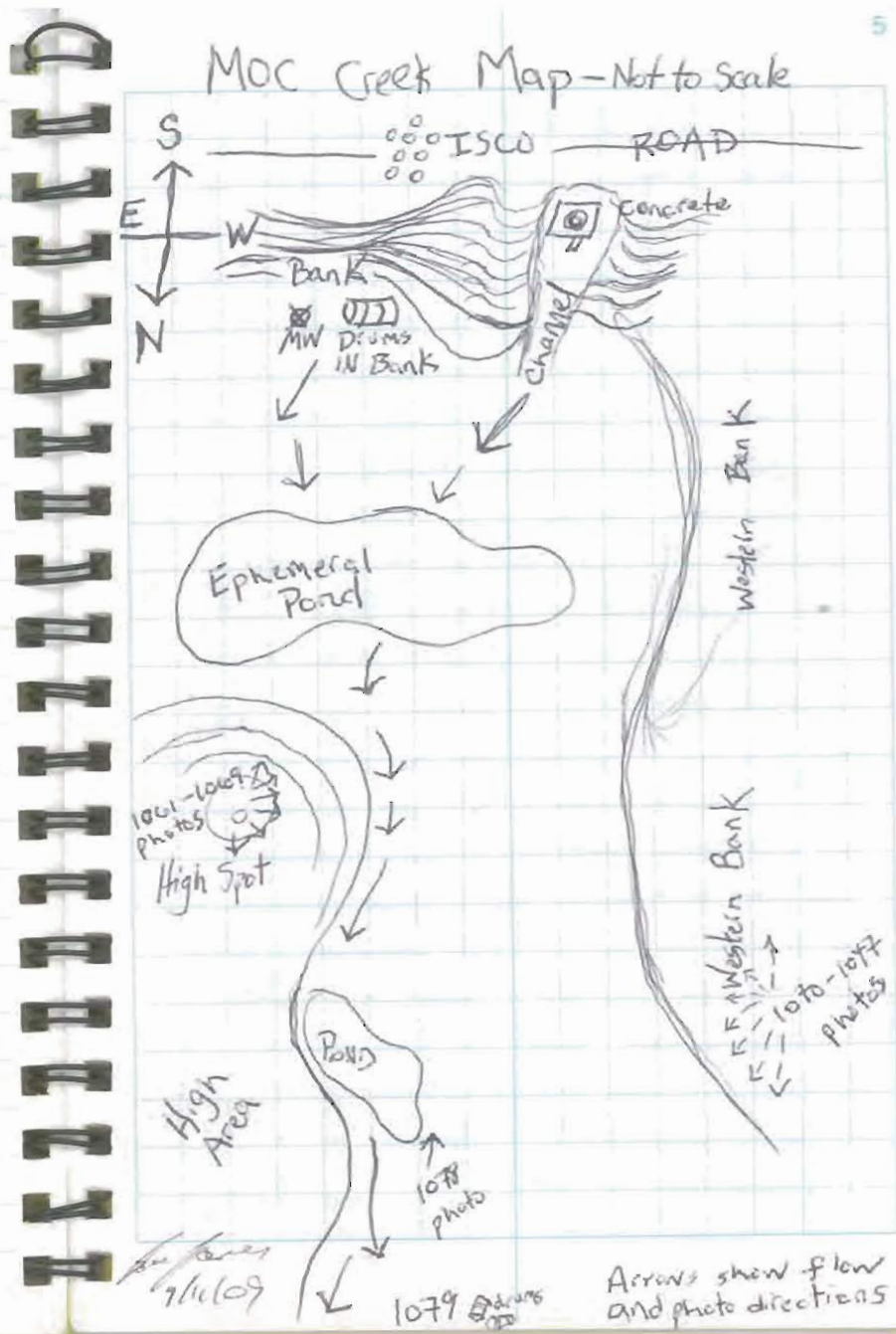
1078 - looking S - Easily push lathe 2' into ground pond and Eastern high point are visible in background

- In the southern portions of the stream closer to the MOC, the flow is on the Eastern side along the bank of the Eastern high spot

- 1079 looking S toward MOC along Eastern high spot and main channel. Easily push lathe 2' into and through thick organics and sediment

- 1080-1084 looking N showing area where water funnels into main channel whose East and West high areas come close together

7/11/09



- 1109-1123 - 360° - S → W → N → E

photos showing Main Western channel

- In the Funnel Area at the topo break after the break there is an Eastern and western channel. The eastern channel gradually merges with the West after entering a broad wet area. The

2 streams merge into a pond before proceeding further to the Sugi.

- 1124-1134 - 360° S-W-N-E at S tip of pond near where 2 channels from East and West Merge

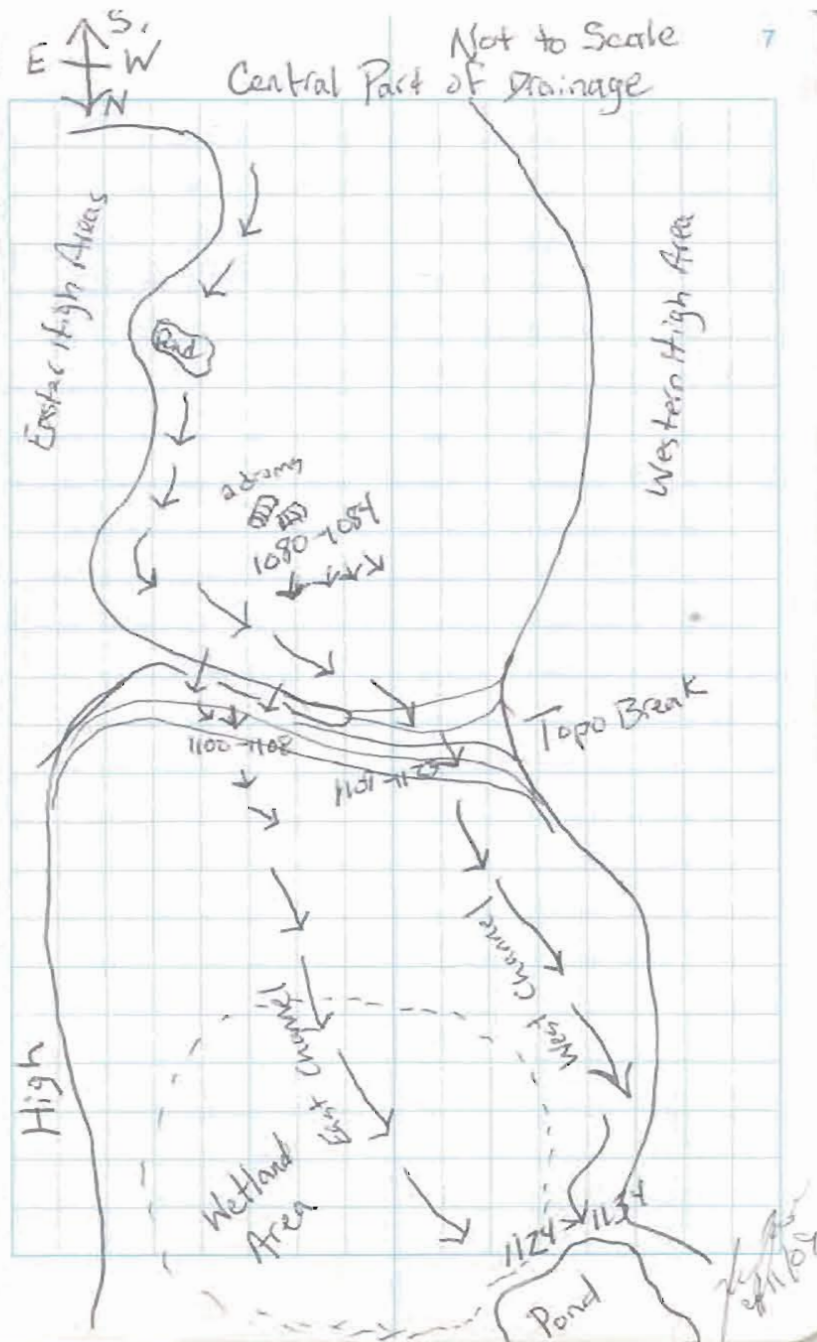
- 1135-1136 on West bank to the west of the ponds looking South. Reindeer skeleton w/ Antlers caught in wiring

- 1137-1139 from West bank between 2 ponds. 1137 looks South. 1138-1139 look north to the Sugi.

- 1140 look S along W bank toward MOC

- 1141 look N along W bank toward Sugi River

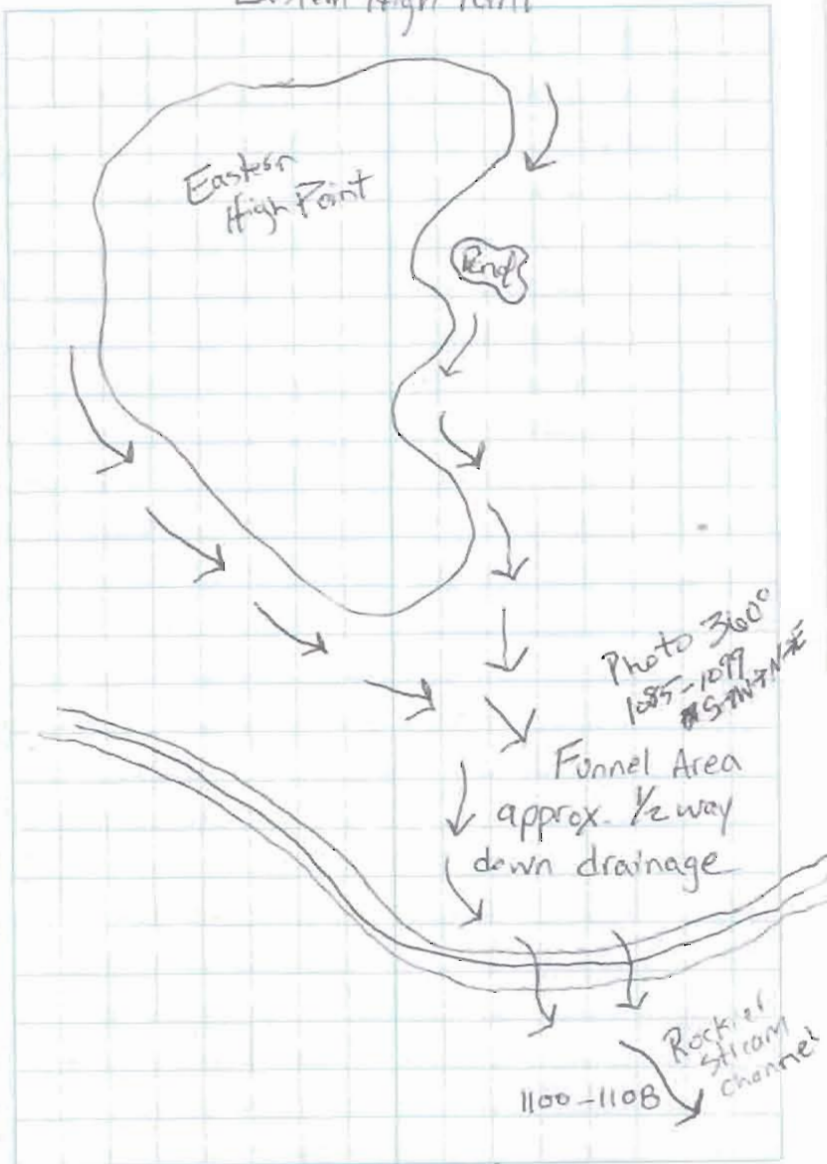
Theresa Long 8/11/09



- Water flows around the East and North sides of the Eastern High Point and meets at the funnel area
- 1085-1099 - 360° photos S→W→N→E→S near funnel area. Topography drops to the North where a more clearly defined channel begins
- 1100-1108 From N side of funnel area where elevation drops, pan from S→W→N shows streams flowing toward main channel and Misc debris

Theresa Miller

Eastern High Point



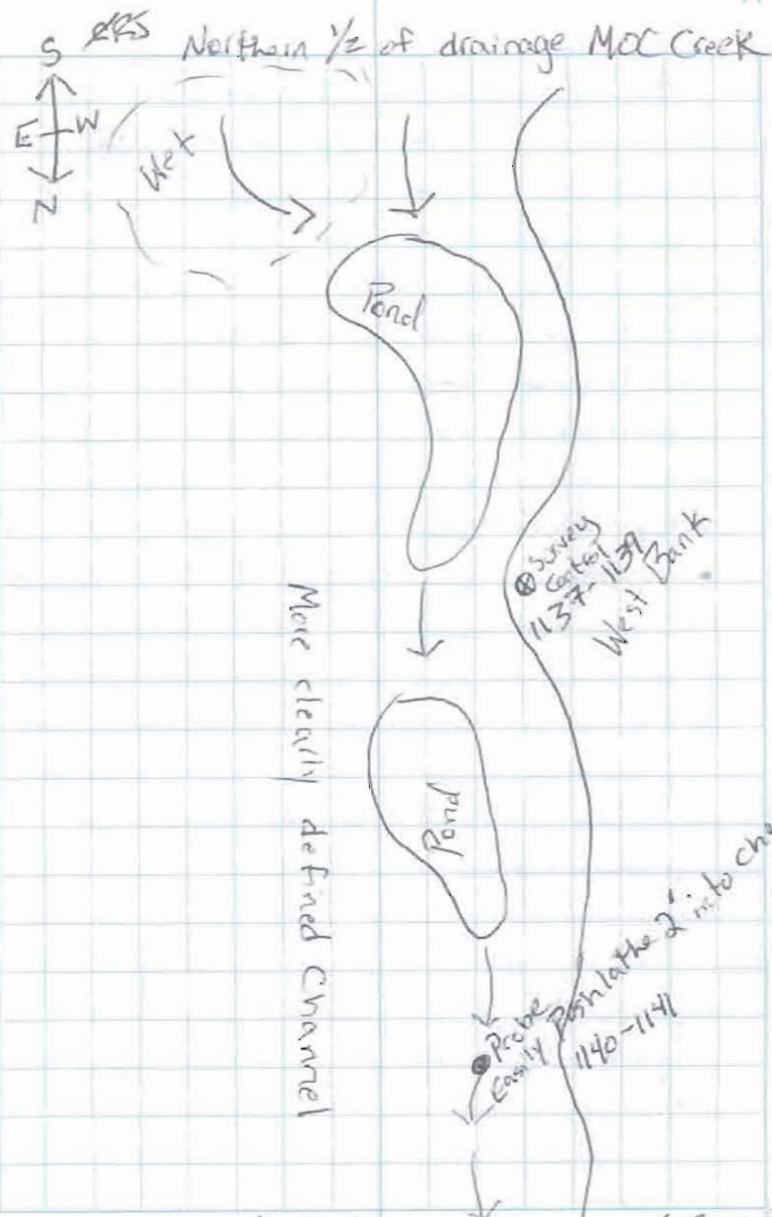
Theresa Miller

• 1142-1143 taken on the Northern section of MOC Creek. 1142 looks S toward the Moc. 1143 looks North toward the Sugj. The channel on the Northern portion of the drainage is well defined and the western bank is directly adjacent. The bank rises about 6 feet above the channel in Elevation. The western bank is without doubt the best choice for a road when dealing with the northern section of the drainage

- 1144 - looking S at pond/stream from W-bank
 - Probed w/lathe and can easily push 1 1/2 - 2 feet w/little resistance.
 Resistance at 1 1/2 - 2 feet is common in most of the probed areas

- 1145 looking S toward Moc. Taken from the intersection w/Sugj. Lathe is placed in what appears to be a spring. Sand appears to be coming from the spring. Maybe silty/sand. This silty sand layer may underlie/underlay the organics/sediment upper layers

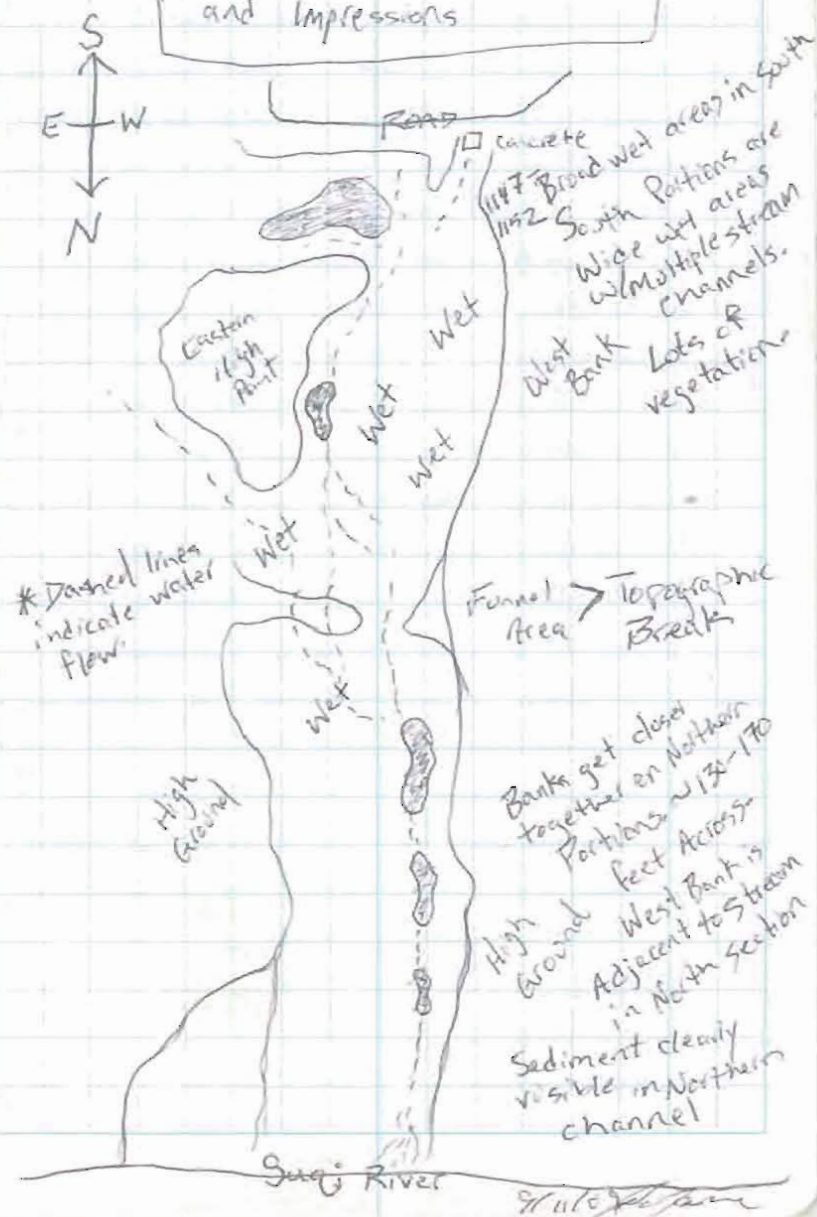
flyover 8/10/09



- 1146 looks N to the Sugi River at the intersection w/ Mac creek
- Banks Narrow to the North
- Broad wet areas to South
- Southern pond not present during this visit (pond N of Mac and tanks not present. General wet area)
- In nearly all areas, I could stick lathe through the sediment and organics approx. 2 feet deep before hitting resistance. In the North 1/2, the resistance was clearly some harder/denser layer. In the South, the organics appear to be thicker based on what I can glean by probing
- 1147 - 1152 - 1800 S → E → N overview of Southern Area
- 1161 - 1162 - From E edge of pond N of tank prints looking Westward concrete outflow drainage (Mac Creek drainage) area

Reyes 7/11/09

Mac Geek General Overview and Impressions



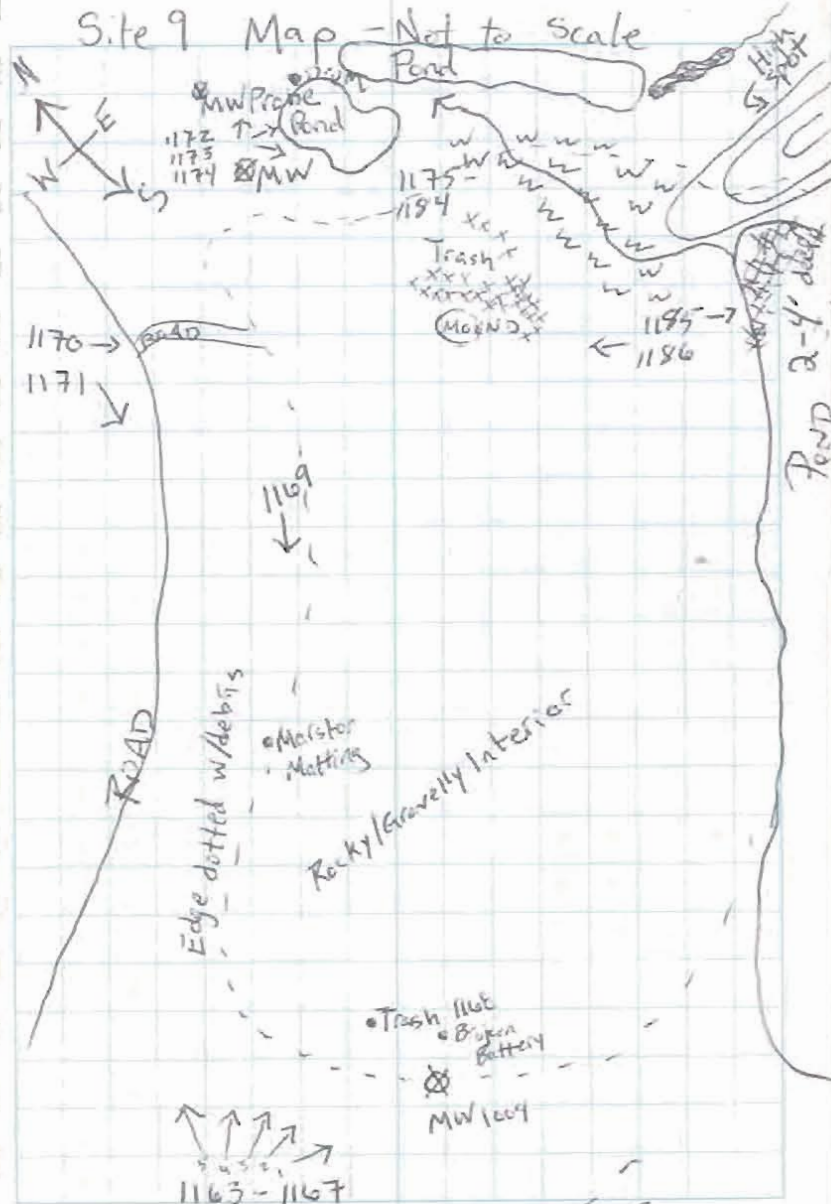
~~9/11/02~~

Site 9 Investigation

- Mound-general high Area Marks the location. Gravel/Rocks in the interior high spots rounded to NE by Wetlands/streams/ and ponds.
- 1175-1184-360° E→S→W→N
- Heavy trash in NE side in water/wetlands
- 1187-1197-360° photos from high spot(divide) S→W→N→E
- Divide/High spot is creating the east side, large pond and it is flowing out the west side through the garbage/debris in the landfill
- The water may be diverted by cutting a trench through the divide to connect the Pond to an eastern drainage.

The above 9/11/09

Site 9 Map - Not to scale



de paves
4/11/09

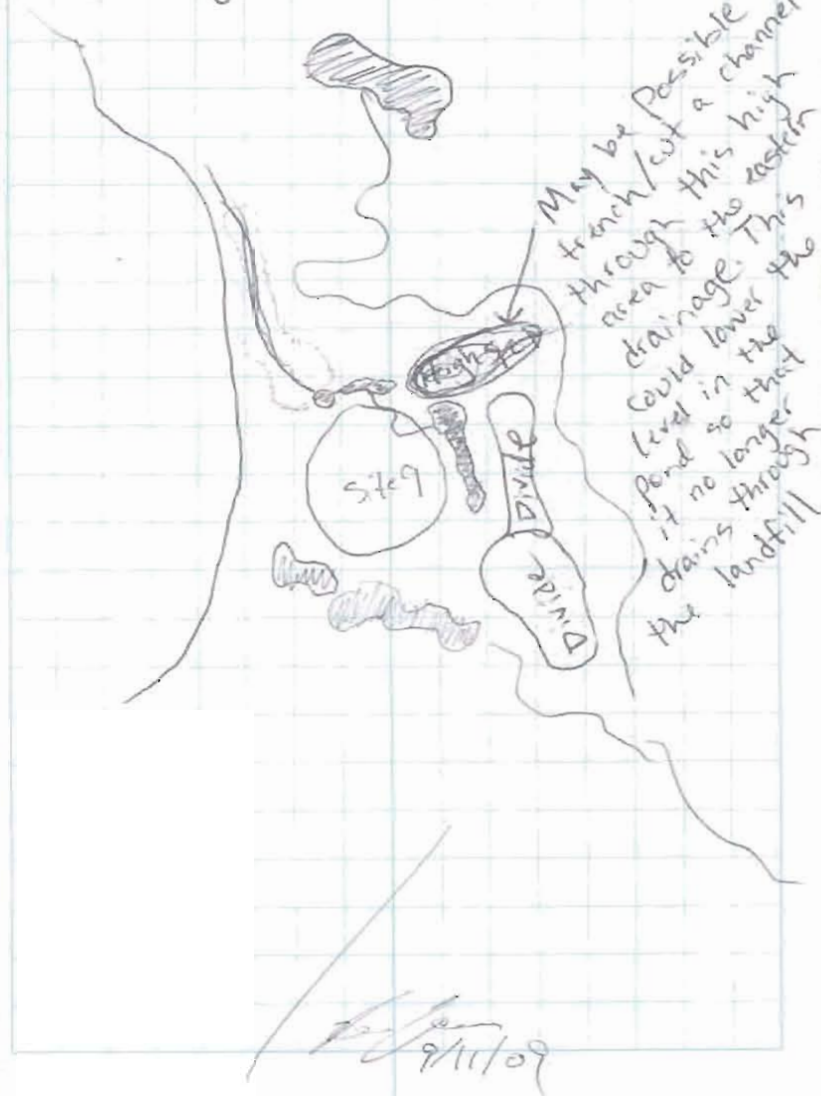
- Site 7 pictures begin at 1198 → looking SE shows grass growing on the cap
- Photo 1208 shows site 6 as seen looking N from the Road
- Pack up and leave NE cape ~18:30
- Arrive in Nome ~19:30
- Return to Nugget ~19:45
- Pack supplies
 - organize notes

End 21:00 (14)

FS 9/11/09

Drainages Around Site 9

Sugi River





"Rite in the Rain"

ALL-WEATHER

FIELD

No. 351

Russell James

BERS

NE Cape

Job No. 49028

1 of 2

"Rite in the Rain"
ALL-WEATHER WRITING PAPER



Name Russell James

Address 111 W 16th Ave, Third Floor
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Intrusive drum Removal
Landfill Cap

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2 7/6/2009 NE Cape Job No. 49028

Windy, Mostly Cloudy 50° F

Objective: Travel to NE Cape

- 0930- Arrive ANC airport
- 1100- Depart for Nome
- 1230- Arrive in Nome, Take gear to Bering Air
- 1445- Leave Nome for NE Cape
- 1615- Arrive NE Cape - Meet with surveyors
- Travel to Landfill, MUC, borrow source
- Check Environmental Conex
- set up new Router Dinner ~1830
- set up Environmental / CQCSM office
- Install printer software
- Troubleshoot print driver install
- Re-install software
- Review plans - SAP, WP, CQCP
 - discuss HWAP sampling
- W/E Barnhill - Email H. Maserjian
- 2000, End of day (11)

RJ

7/7/2009 NE Cape 49028

Cool, very windy

Objectives: landfill survey / HWAP sampling
OBSO safety: Communication, yield to the

Ruck trucks, putting radios in the vehicles, talk to each other, pick-up trash and debris, Emergency phone #'s, phone locations, ATV use - No 4-wheelers on the job. Tell people where you're going if you leave after hours, sign-in/sign-out, PPE - safety vests, hard-hats, glasses,

Haz. Mat - gloves

Drinking water in bottles, still have to test the water system.

Wildlife - Foxes, Rabbits - do not feed.

Markings on the Tents and Facilities

Winds - be aware w/ doors and wind direction.

Look out for debris at the demo areas.

Medical Forms for Medic. Clinic will be set up w/ OTC meds + other.
Fire extinguishers + First Aid kits

7/7/09 RJ

4 safety cont:

- surveyors at the landfill, sampling at the HWAF
- Monitor fuel use - clipboard & logbook
- Surveyors are setting up base station
- Print figures of the landfill
- Email Melodee Carlson to order new black print cartridge
- Talk to Chuck about prep phase meeting.
 - will hold when QAR arrives
 - discuss hazards, safety
- people to be present: Chuck, Maze, Me, QAR, Eric
- Head to Landfill to mark the control points and potholes for the surveyors
- Potholes:
 - PH1 - photo → NW west
 - @ PH2, PH3 - NW photo
 - photo - NW west
- PH4 - NW photo, PH5 - N photo
- PH6 - N photo, PH7 - N photo
- PH8 - S photo, PH9 - S photo
- PH10 - N photo, PH11 - N
- PH12 - N, PH13 - N
- PH14 - N, PH15 - N

7/7/09 *Lu Pa*

7/7/09 *Lu Pa*

5

- PH16 - N - No trash
- PH17 - N - No trash
- PH18 - NW - Debris
- PH19 - N - Debris
- PH20 - N - No trash
- PH21 - N - Minor debris
- PH22 - N - Debris, Empty drum
- PH23 - N - No trash
- PH24 - W - Debris in hole and surrounding area
- PH25 - N - Debris
- PH26 - N - Minor shallow debris
- PH27 - SE - Debris
- PH28 - N - No trash
- PH29 - SE - No trash
- PH30 - N - No trash
- PH31 - NE - No trash
- PH32 - SE - No trash
- 1000 - Return to office to begin
- DQCR - received email from P. Carl stating DQCR might be put off until Thursday when M. Walker returns.
- Begin work on DQCR for 7/6/2009
- Talk to Randy Black about getting Man and Equipment hours.

7/7/09 *Lu Pa*

7/7/09

- Randy says he'll start giving daily's to the crew for them to fill out w/hour worked and machine hours
- Items to discuss w/chuck:
 - ① Materials received
 - ② Topics of safety meeting

- Email P. Carl regarding DQCRs. Will want to hear from her to decide whether or not to send a report for today.
- Email

Phone conversation w/G Jarrell and P. Carl
 - check the labels of the glass cleaner that was shipped by T&E Freight

- Get batteries for Environmental Scale
- Lunch
- Mark potholes w/lathes
- PH33 - E - Minor debris
- PH34 - N - Debris
- PH35 - E - Debris, DRUMS

- PH36 - E - Minor debris
- PH37 - N - Minor debris
- PH38 - SE - Shallow trash
- PH39 - E - No trash
- PH40 - N - No trash
- PH41 - E - No trash
- PH42 - E - No trash
- PH43 - W - surface debris Minor
- PH44 - E - Minor surface debris
- PH45 - S - No trash
- PH46 - NW - No trash
- PH47 - N - No trash
- PH48 - W - Minor debris
- PH49 - SE - No trash
- PH50 - NW - No trash
- PH51 - SE - Minor surface debris
- PH52 - W - Empty destroyed drum
Minor debris
- PH53 - NW - Minor debris
- PH54 - S - Debris
- PH55 - NE - No trash
- PH56 - W - Minor debris
- PH57 - NE - No trash
- PH58 - S - No trash

7/7/09

- PH59-W- Road Matting
- PH60-W- No trash
- PH61-S- No trash
- PH62-NE Minor debris
- PH63-NE- Drum w/liquid
- spilled
- PH64-S- No trash
- PH65-S- No trash
- PH66-SE- No trash
- PH67-S- No trash
- PH68-W- No trash
- PH69-W- No trash
- PH70-NW- No trash
- PH71-N- No trash
- PH72-NW- No trash

- Take GPS area of the HWAP
- GPS sample locations
- GPS readings taken w/Trimble
- GeoXT running Trimble Terra-
- sync software
- Discuss DCR procedures
- w/Randy Black and Chuck Croley
- Download photos, Update field book
- Recharge camera battery

7/7/09 *for Jones*

- Rename photos
- Email pics to G Jarrell about
- Dangerous goods
- Download GPS points
- End 2145 (14)

RJ

7/7/09 *for Jones*

Cloudy, Misty, cool

FS

Objective: Construct AWAP, Prep phase Meeting

Safety Meeting: Tailor for all crew,

Medical Form, WAR on-site 7/17

prep phase checklist for drums and
hauling this afternoon, New arrivals

① Scott from Emerald ② Scott w/AEcom

③ Mark w/AEcom ④ Tyler from BERS

- will be sharing equipment

- Containment building today, proper lifting
w/liners while laying the base liner

- 3 more people arriving today depending
on weather

- Maze: Vehicles have radios in them now
1 side-by-side is down

- In-office - prepare for prep phase

- plane arrives ~ 1000 w/crew (3)

- ~~E~~ Bruce Schnever

Dan Faulk

Allen

- Drawn prep phase Meeting
checklist w/Chuck

- Prep phase Meeting held at 1300

- Notes and prep phase checklist
scanned to Chuck's computer

7/8/09 *Allen*

- Print series of Figures
of the NE Cape site

- Head to Landfill to Mark the
trench and take photos

- Lathe w/flagging put up around
Photos

① 20090708-1 - N facing -

S-side of road - drums buried

② 20090708-2 - N facing

leaky drums on S-side of
Road bank

③ 20090708-3 - N facing

stained soil S-Roadbank

④ Trench-1 → NE facing

S-side roadbank trench

⑤ Trench-2 → NE facing

S-side roadbank trench

- Download pictures

End 2000 (12.5)

FS 7/8/09 *[Signature]*

Cloudy, cool, Windy

FS

Objectives: Construct MWAP

Safety Meeting 0630:

- Stower is better, carefully dismount equipment - 3 points of contact.
- Watch out for TV line, will be buried
- Trip hazard - Cold temps, beware
- Continue w/containments, water scrubbing system
- Email M. Ellanna for some large plots of the area. Email M. Welker, L. Maserjian, M. Hannah, J. Sharp-Zahl about getting new figures and plans out to the site.
- Head to Landfill (007) w/survey equipment to map the general area

Distances from Road Centerpoint to

N-Edges of Trench: From NE \rightarrow SW:

- ① 74'
- ② 52'
- ③ 32.5'
- ④ 35.5'
- ⑤ 55.5'
- ⑥ 85.5'
- ⑦ 132'

S-edge of Trench SW \rightarrow NE

- ① 129'
- ② 86'
- ③ 52'
- ④ 38.5'
- ⑤ 55'
- ⑥ 84.5'
- ⑦ 97'

M. Hannah

Distances from MW to S-side of Road edges of visible Metal Frame NE to SW:

- ① 141.5'
 - ② 118'
- then continue w/measurements marking the toe of slope from MWs

- Take pictures of roadside drainage where ~~E~~ culvert will be placed on SW end of landfill

3 pictures:

- ① ~~20090709~~ 0194.jpg - W - 1009
- ② 0195.jpg - W - 1010
- ③ 0196.jpg - NE - 1010

- Get GPS unit - walk/GPS road centerline
- GPS Potholes and trench
- Make Map of the potholes and Anomalies
- GPS Borrow source
- End 1915 (12-25)

FS 7/19/09 M. Hannah

cloudy, misty, cool

RS

Safety Mtg: Traffic communication during hauling activities. Radio base station this morning. E-brake on 988.

- Received dwg from Eio land w/survey info. Check out the drawing in ArcGIS. New topo was created.
- Download pictures from yesterday
- Work w/dwg from surveyor, print sheets of new contours for Chuck
- Review HTW Accum. Summary sheet w/Tyler - Scott Schultz
- When comparing surveyor drawing w/GPS points collected from our units I've found that 2 points of the same object differ by about 85 feet. The drawing appears shifted to the southwest approximately $\frac{1}{2}$ ft West and 72 ft South.
- going to troubleshoot the issue this afternoon.
- Is the GPS off or is the survey off?

7/10/09 for James

- Some of the DCRs were sent to M Welker today. Chuck informed her that signatures and pics will not accompany the DCRs due to internet bandwidth and file sizes, but will be furnished to the GAF once on-site via flash drive.
- Tap phase Meeting for ISCO will be held tomorrow. AECOM Walk Plan will be reviewed this afternoon and evening.
- Chuck emails 9 DCRs to M Welker who sends to the distribution list of:
 - ① Cary Coraboom
 - ② Lisa Geist
 - ③ Mike Utley
 - ④ Tom Boyles
 - ⑤ Stan Wharry
 - ⑥ Valerie Palmer
- Print and sign DCR 1-9
- Arrange DCR pdfs
- GPS MW 7-4
- Photo:
 - 0218.jpg - NW - Road at landfill
 - 0219.jpg - WNW - Road at landfill
 - 0220.jpg - WNW - HWAT Improvements
 - 0221.jpg - W - Culvert by landfill
 - 0222-223 - E - culvert by landfill

for James

0225.jpg - SE Fuel Containment

- 2 new Arrivals: Sean McBride
~~Robert Nelson (Bob)~~
 Bob Schlosser (AGC)
- Work on prep phase checklist for
 15CO Treatment 1930
- Enter info on previous DQCRs → lots
 of catch up work happening on
 the dqr's
- Print prep phase checklist
 End 2145 (13.25)

45 7/10/2009

[Signature]

Saturday 7/11/2009 NE Cape 49028 17

cloudy, misty, cool

Objective 5 AECOM Test Pits, Drum Exposure
 Safety Meeting: Excavator safety - Eye
 contact w/operator, High Vis Clothing,
 Prep phase meeting checklist this
 Morning, Traffic safety - slower is
 faster

- Prep phase Meeting

- Scan prep phase

- Go to 15CO site 27

Photo: 0226.jpg - NW-

Test Pit - Excavation Excavator

0227.jpg - E - Test Pit 2

0228.jpg - E - Test Pit 2

0229.jpg - E - Test Pit 3 being
 excavated

0230.jpg - E - Test Pit 3. Excavation

0231.jpg - NW - Site Barrier 15CO

0232.jpg - E - TP3 profile

0233.jpg - NW - site Barrier 15CO

- 1524 silt fence being installed
 at landfill

photos 0234.jpg - W - silt fence on
 S-side of landfill Roadbank

0235.jpg - W silt fence install

7/10/09 *[Signature]*

0236.jpg - NW - Road
around landfill

0237.jpg - W - ~~Surface~~
excavation of metallic anomaly
area - No drums or visible
debris

0238.jpg - NE - Pothole in
anomaly area - metal pipe
- GPS New Potholes in the areas
of metallic anomalies

- End 1900 (12)

KS 7/11/09

[Signature]

Sunday 7/12/2009 NE Cafe 49028

Windy, partly cloudy, Cool.

Safety Mtg 0630: PIRE in HWAP.

- Mosquito spray - Traffic Safety
- Watch for trenches at
1500 site
- DQCRs - create PIR's for
DQCRs - sign 10-16 (Reports)
- PIR and attach photos
to Daily Reports
- All DQCRs are partially complete
through 7/11/2009
- Landfill drum Removal - one drum leaked
during pothole investigation
 - this drum was transferred
to a tote and transported to
the HWAP - The contents were
pumped into 2 new drums. Contents
included water and oil. The
drums will sit and the oil will
be pumped into a single, new
drum. The water will be poured into
the impoundment or straight into the
oil/water separator
- A sample of the oil was field
tested w/Chlor-d-lect 1000
Result < 1000 PPM
7/12/2009 *[Signature]*

- Non-Haz Waste stickers were stuck onto the Accumulation Drums and they were transferred to the cleaning impoundment area
 - One 85 gallon drum was set aside in the cleaning area for absorbent pads a Non-Haz Waste sticker was placed on that drum also
- Photos:

- ① 0241.jpg SW - photo of pot hole after liquid removal
- ② 0242.jpg - S - Tote containing drums in landfill
- ③ 0243.jpg - Tote w/drums & Non-Haz stickers in HWAP - N
- ④ 0244.jpg - NW - Drum picked on skid - steer
- ⑤ 0245.jpg - N - Drum Recovered from landfill

End 2000 (1205)

45 7/12/2009

for Paul

Monday 7/13/2009 NE Cape 49028

Partly Cloudy, Very Windy

- Safety Mtg: 0630 PPE - Tyvek, Saranex splash shields, goggle vs. safety glasses in the wind. QAR will arrive today weather permitting. Sketches in Clinic
- Not cleaning/pressure wash in wind.
- Meet w/Chuck - daily inspection logs
 - put people's names in Remarks section
 - add total bodies in camp somewhere
 - 15CO will dig 2 More Test Pits
 - Eugene Returns Tuesday w/emerald person. Scott will leave Thursday and Derah will be coming in.
 - Fill out DCCR for 7/12, get signatures for DCCR 10017
 - Send Timesheet to P. Carl
 - DRUM REMOVAL
 - photo: 0246 - W Pumping drum
 - 0247 - W. Drum lifting
 - Battery Recovered at 1132 and placed in open top
 - Recovered 12 drums from the landfill to date ~ 200 gallons of oil
- 7/13/09 Paul

- Recovered 1 whole battery from the landfill today
- Rains started about mid-day
- ~1830 we took out a 55-gallon drum almost completely full of oil -

Photos:

- 0246.jpg - Pumping drum
- 0248.jpg - unknown cans - N-facing
- 0249.jpg - NW - unknown Tank
- 0250.jpg - NW - Excavation operation

Drain 1900

End 2045 (13)

FS

7/14/2009

[Signature]

Tuesday 7/14/2009 NE Cape 49028

Cloudy, Cool

RJ

Objective: Remove liquid filled drums

0630 Safety Meeting: Stay Warm in the cool wet weather.

Give Allen more space around the landfill Excavation

- Fill out DQCR 019 for 07/13/2009
- Conversation w/R. Black → Chuck will be staying in town until Monday
- Give DQCR 19 to CAR for Review at 0850
- Scan Trench Logs from AECOM
- Deliver DQCR to M. Welker
- Send Landfill GPS pothole Maps to Molly via email
- 18 cans pulled out of landfill so far → 13 at start of day
- Help AECOM w/GPS Data. Created a map of their study area for AECOM → delivered at 1200
- Head to landfill excavation ~1300

Photo:

0251.jpg - N - Excavation

1830 - QAR suggests dust control measures during dry, windy conditions tomorrow.
- We will incorporate the dust control using the water truck

- 19 drums recovered from the landfill total to date
→ 6 today

Shift ended @ 1915 (12.25)

RJ

7/14/09

Full Jones

Wednesday 7/15/2009 NE Cape 49028

Mostly Cloudy, Cool

RJ

Intrusive Drum Removal / Landfill Cap

0930 safety Meeting: Footing - watch for debris and misc. objects under foot
Be prepared for the wind - safety goggles
- Be cautious in high traffic areas near landfill

- Instructions from QAR: Pull the batteries as we come across them and throw them in a drum - Corps is concerned about lead.

- M. Welker said we will fill at 6" lifts and track walk for compaction.
- Compaction will be done until considered sufficient by operators/foreman/site super - This info will be passed on to site QAR

- Put up the HUAL emergency contact sign

- Surface disturbance @ landfill

① SD1 - Near Road

photo: 0266.jpg - N - Excavation

0267 - Crushed drum uncovered

Highs

near surface

- No evidence of full drums

② SD2 - photos begin at
0269.jpg

- Uncovering Marston Matting,
Metal banding straps
- no evidence of drums
0283.jpg SD2 post excavation
backfill

③ SD3 - Metal pipe

0284.jpg excavation - South
Drums uncovered during excavation
~ 7 drums were pulled out
and transferred to the HWA.
The drums are sitting at the
HWA awaiting transfer to
Accumulation drums

- Discussed the compaction of the
landfill cap w/ QAR and told
him we were going to lay down
in 6" lifts and compact w/ the
Tracks of the equipment/ bulldozer
until the operators believe compaction is
sufficient before laying down
another layer. If compaction questions

7/15/2009 *[Signature]*

arise, the Foreman and Site Super
have adequate knowledge/Experience
to address the issues.

- The QAR's response indicated he
agreed w/ the approach and ~~7/15/09~~
that backfilling of the ~~completed~~
excavated bank could commence.
- 6 drums pulled today
End 2075 (42.75)

TS

7/15/2009
[Signature]

Calm, cool, partly cloudy

RT

Objective: Metallic Anomaly Surface disturbance
and intrusive drum removal0630 Safety Meeting: Watch out for
equipment and don't get under loads.
Watch for trucks at the landfill- Continue pulling drums from anomaly
area that was begun yesterday.- Call M. Welker about setting up a Cornex
in HWHF to work in for wind block.- Mark Houston said they uncovered
metal piping that is most likely
fuel line in one of the test
pits today. It had a strong fuel
odor. They noticed a perched water
zone w/ high transmissivity. The
test pit was backfilled to prevent
spreading of contamination.- Deliver DACE to QAR for
Review- QAR instructed BERS to construct
silt fencing around excavation
areas at the toe of slope- QAR told BERS that the silt fencing
on the NE slope as stated above
would not be necessary7/16/09 *[Signature]*- Metallic anomaly on S side of Road
was excavated and no metal drums
were found. Very little
debris was found- Stakes indicating fill depth/lifts
were driven in the backfill
area- NE landfill anomaly is currently
being investigated. Drums w/ liquid
are being found

- Photos taken of backfill area

Metal Anomaly investigation areas
≈ 13 drums excavated and transferred
to HWHF today. We have a total
of 38 drums to date. It's possible
that we could recover the 50
from the Super of WorkRT 7/16/09
[Signature]

30 Friday 7/17/2009 NE Cape 49028

Raining, Cool, Calm Winds

0630 safety: No Smoking when pulling drums in the excavation. Stand back when smoking.

Jess Cheatwood gave a briefing on Emergency supplies for Mass Accidents

- Begin work on DQCR ~~0727~~ this Morning
- Create progress map to attach to the DQCR of anomalies excavated and the current area of Backfill
- 09:24 give DQCR to GAT for Review
- Note: Den of Foxes was disturbed during drum removal this morning. 4 Kits and mother were observed. The operation was paused to allow time for the foxes to move.
- GAT mentioned keeping smoking away from drums. Also mentioned being more alert around the ~~exc~~ equipment. Stand back from the excavator and pay more attention to the heavy equipment. Closed drums w/unknown contents should be opened w/ brass punch or excavator w/crew @ safe distance.

the James 7/17/09

31

- 2 drums recovered at 10:00

~ 1300 - Prep phase meeting for 1500 Well Installation

- 3 new Arrivals on Security Aviation

- ① Valerie - SAR
- ② Johnny Willis - Mechanic
- ③ Doug Byers

- Give Rev 1 plans to Mark Heaston

- Meet w/Valerie Palmer

- Continue drum removal at landfill
- HMAP wash cone was set up and used today

- 55 gal drum was brought to the excavation for contaminated soil.

End 19:00 (12)

RS 7/17/2009

[Signature]

Train, Cool

RJ

Objective: Drum Removal

06:30 safety: Work at wet conditions.

Use 3 point lifts getting in & out of equipment. Take a break if you get tired. Don't let monotony of work put you to sleep. Guard against cold stress.

Work on DCR - Deliver to Valerie -
Q 10:30

Drum Excavation progressing in NE Anomalies
Photos:

0313.jpg - SE - Drum Hwap - Washing

0314 - " - " - "

0315 - SE - Hwap - Clearing

0316 - NE - Excavation of NE Anomaly

0317 - NW - Stockpile

0318 - S - Landfill

0319 - E - NE Anomaly

0320 - N - Excavation

0321 - S - Excavation

0322 - SE - Hwap Oil transfer

0323 - Oil & Sludge

0324 - Hwap Clearing Area

7/18/09 *[Signature]*

- Complete excavation of NE Anomaly below Road. Continue excavating on other side of Road. Gravel from Road is stockpiled & separated from underlying soil.

- 1 drum pulled from landfill today

End 19:00 (12)

RJ 7/18/09 *[Signature]*

34 Sunday 7/12/2009 NE Cape 49028
Cloudy, Calm, cool RJ-3085

06:30 Safety: Keep windshields clean
and watch for slippery and muddy
conditions.

- RAR ~~mineral~~: splash shields
in washing area - wear seatbelts in
vehicles.
 - Drum cleaning - Totes of drums are
being heated w/ the Frost Fighter in a
coner to reduce the viscosity
of the oil and make it easier to
deal with (transfer)
 - Continue excavating the NE anomaly
- completed - 2 drums removed
75 total drums Recovered
 - Start backfilling the excavation of
the NE Anomaly
 - Found an area adjacent to the
NE anomaly, by the road where
drums are poking out of the ground.
- This area will be
investigated tomorrow
 - Emailed M. Welker to request more
gloves and Tyvek for the drum
cleaning
- / James
7/12/09

Monday 7/12/2009 NE Cape 49028

Rain/Cool

06:30 Safety: Seatbelts, New dumping
area, so traffic will change

- Got Drill Rig Logs and Beachdo Logs from
AECOM.
- Fill out DQCR
- Discuss Glove situation w/ George
and Carl
- Shane mentioned creating a new
waste stream "oil debris including
metal" to just simply dispose of
crushed drums w/ minimal recoverable
oil.
- Talked to Shane O'Neill about
the HAWAT. He will start jacking
in w/ the cleaning and pumping crew
and help w/ cleaning and pumping
the drums. He mentioned getting
1 or 2 extra cones to heat the
oil and water up in the cones
w/ the Frost Fighter and still have
a cone to use. He thinks a
rotation would be a good idea.
The HAWAT needs certain people
in and out of the containment

area, as well as someone who can operate the equipment.

He said gloves are becoming an issue (more are on the way). I explained to him that diesel on an absorbent can be used to help clean gloves and boots, but no free liquid should be lying around. He is going to coordinate w/George Mack about the general logistics of the operation. He will determine, w/George, the personnel suited for each "station" of the HWAAP. Tyvek sleeves will be taped over gloves for crew in the contaminated areas to prevent oil from entering the insides of the gloves. He needs duct tape.

- Excavating an area that did not appear to be on the geophysical anomaly map. Adjacent to the Cargo Beach Road (North).

Photos:

0331.jpg - shows metal debris in this area

7/20/09

- 0332, 0333, 0334.jpg all show metal debris sticking out of the ground.
- No drums w/liquid recovered from this area.
 - Move on to the large NW metal anomaly area.
 - photo: 0338.jpg - E - beginning excavation of NW anomaly.
 - No liquid recovered from this area yet, but some soil showing evidence of staining was removed.
 - We recovered 2 partial batteries today.
 - We discovered what appears to be a PCB light ballast.

End 1900 (12)

RS 7/20/09

[Signature]

Tuesday 7/21/2009 NE Cape 140
 Landfill Drum Removal Job #49028
 Partly - Mostly Cloudy, Cool w/ periods of rain
 00:30 Safety Meeting: Stay Alert - Don't
 let Machinery Make you tired. Don't
 lose concentration. Move safely around
 equipment

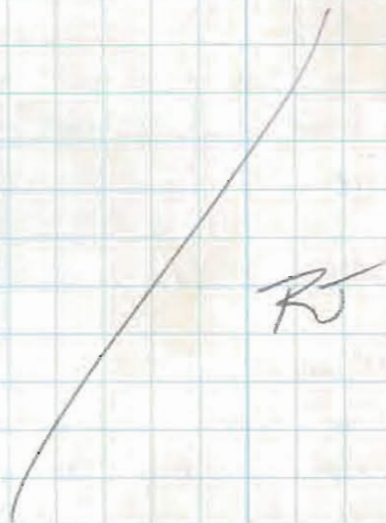
- Spill Report @ 09:30 to Northern
 Alaska reporting center
- Send DCR to QAR Valerie Palmer
 at 10:00.

- QAR said it would be okay to
 put kitty litter in the drums
 that have been emptied after
 50 drums have been stored
- QAR told Shane O'neil that the
 pillows from the water scrubber
 should be kept separate from
 the other oil debris from the
 landfill - Will run by Molly
 to make sure we are properly
 handling the pillows

- Plane arrived ~ 15:30 offload and
 some other supplies. The Drillers,
 David and Randy, left the site.
 Samples were sent to the lab
 for quick turnaround.

- Stop excavating @ 18:45, found
 2 PCB kallasts and 3 Batteries

End 1900 (12)



40 Wednesday 7/22/2009 NIS Cape RJ

49028 1500 Invasive Drum Removal

Foggy, Cool

06:50 Safety: Keep the headlights on in the fog. Stay alert. Keep Tyvek on in the HWAAP and take it off when not in the Containment area. Don't get distracted by the Mosquitoes.

- Email M. Welker to get clarification on what to do w/ water scrubber pillows and how to incorporate the kitty litter idea when cleaning the drums. Also passed on some of the concerns that the DQR had about the water treatment and discharge.

- Walk on DQR 027

- Email from M. Welker

- Ballasts and broken batteries are not in our scope of work. The water treatment Scrubber pillows can be accumulated w/ all the other city debris.

[Signature] 7/22/09

41

- Email Scott McClintock about the landfill Survey he submitted to us

- Excavating NW anomaly
- QAL suggesting using dust Control Measures - I told Doug Byers to get the Message to George Mock
- Dust Control was instituted

End 1900 (127)

RJ 7/22/09

[Signature]

42 Thursday 7/23/2009 NE Cape 49028

1500 Treatment Drum Removal, Foggy, Cool
06:30 Safety Medic Briefing on AED

Trenching at Landfill

1) T1 - 0482.jpg - photo -
NW - 10x10x4
GPSed T1

0483 + 0484.jpg show T1 open

2) T2 - 0485.jpg - NW
GPSed T2

3) T3 - 0489 - 0490.jpg - W, N

Reminders

We have 51 drums. The WRR
said Molly would have to submit
a letter to the Corps for the
change order regarding the
kitty litter / oil dry

4) T4 - 0495 - NW - pre-dig

5) T5 - SE - 0499.jpg - 0500 - pre-dig
501-502.jpg post dig

43

T6 - 0503.jpg - SE - pre-dig
GPSed

Soil Canex Weights:

① WMXU 0017 - Soil
- 46,200 Tare = 4890 = 41,310 lbs

② WMXU 0095 - Soil
42,600 Tare = 5030 = 37,570 lbs

③ WMXU 0025 - Soil
34,300 Tare = 4720 = 29,580 lbs

= 20.66

+ 18.79

+ 14.79 \Rightarrow 54.24 tons of Soil

- Sit Fence Installation at toe of slope

- Called Molly about the Kitty litter

- only for sludge, crushed drums

- Accum water may be analyzed
in Anchorage

We are still washing easily washable
drums

- Return to Camp @ 1900

- Tell Shane O'Neill that he will
be leaving tomorrow due to lack of work load
and to talk w/General about his performance

End 2000 (125)

44 Friday 7/24/09 NE Cape 49028

1500 Treatment Drum Removal
Partly Cloudy, Cool

- 06:30 Safety: Medical Video → Not available due to technical issues.
- Keep up the safe work things are going well. A plane will arrive today w/Chuck and supplies
 - Work on DCCR after safety Meeting

- Landfill Excavation
 - Drums w/light oil or gas being recovered

- Floor diked drums being put back in landfill

515, 516, + 517 - pg show photos of drums w/floor diked in landfill after processing.

- 14:00 Teleconference w/AECOM
 - going to perform the pilot study in the shallow perched Aquifer.

- Order New yellow latex boots
End 1900 (12) /RJ 7/24/09

Saturday 7/25/09 NE Cape 49028

45

1500 Treatment Drum Removal, Foggy, Cool RJ

06:30 Safety Meeting - Keep lights on in the fog. Medical video on heart defibrillation

08:00 Give the Excavation More Room

- Work on DCCR 050

Email to V. Fajer @ 08:45

- Chlor-N-Oil tested a thing found in the landfill w/oil level indicated

level was < 50 ppm

Photo: 0524 + 0525 - pg show area of oil contaminated soil

- Drums were pulled from the landfill
 - Note: The excavation is fairly deep, in some places reaching about 12 feet. Drums are being pulled from the bottom levels of the excavation

- Eleven drums were pulled today

- Bering Air Flight ~ 20:00

Chuck and Jeb Adkins arrived

Shane O'Neill left the site

Environmental Received New Tyvek suits and gloves and splash Shields

End 20:30 (12.5)

/RJ 7/25/2009

46 Sunday 7/26/2009 NE Cape 49028

ISO Treatment/Intrusive Drum Removal

Rain, Cool, Calm Winds

06:30 Safety Meeting - Look out for 4-wheeler.

3-point Mount Dismount. Wash hands after using the bathroom and before going through the dinner line.

- Work on DQCR → send off #30 via email, Begin #31 for 7/25/09
 - send to check for Review

- Head to landfill, Take Tyvek splash shield to HWAP

- Continue drum removal
photos: 2 taken of drum removal procedures

- 1 pub light ballast found
- 2 batteries found
- 11 drums recovered
 - End @ 17:15 (10)

RS 7/26/2009

to James

7/27/2009 NE Cape Job No. 49028 47

ISO Treatment/Intrusive drum Removal

Slight Rain, Cloudy, Cool

RS

06:30 safety: PPE around iso tanks in the fuel containment area.

Be careful on steep grades w/ heavy loads. No smoking w/in 50 ft of fueling operations. Keep cigarette butts ~~off~~ off the ground. Reminders: this is a dry camp.

- Work on DQCR 032 for 7/26/2009
- Check HWAP - Discuss procedures w/ Doug Byers
- 4 drums as of 10:30 out of the landfill
- 12 batteries at end of day
- 11 drums @ 1800

- Boeing Air flight came in and delivered crew from Zenali Drilling

End @ 1800(11)

RS 7/27/2009

to James

48 Monday 7/28/2009 NE Cape 49028

Mostly Cloudy, Cool - Calm Winds

1500 Treatment / Invasive Drum Removal / Landfill Cap

06:30 Safety Meeting - High traffic at Landfill.

Operators: Watch for people walking. Wear high vis clothing. Slower is faster. Lay down in 6" lifts and track walk thoroughly.

- Work on DQCR 033 for 7/27/2009

- 6 drums as of 10:00

- 2 batteries as of 10:00

- A1 - A10 are full \Rightarrow 500 gallons oil

- PA1 - PA2 are full

- D1 - D6 (sludge) are in Conex (D7 is full)

- F1 - F2 (pillows) are in Conex

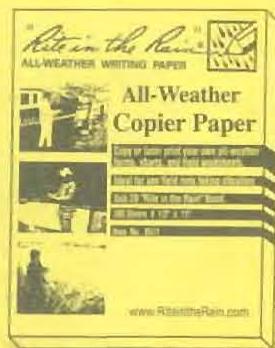
- 17 drums @ end of day

- 12 batteries @ end of day
End @ 1830 (11.5)

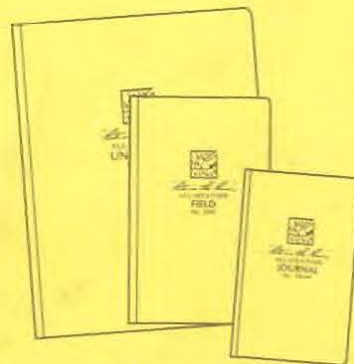
RS 7/28/2009

Dr. James

"Rite in the Rain"
ALL-WEATHER WRITING PAPER



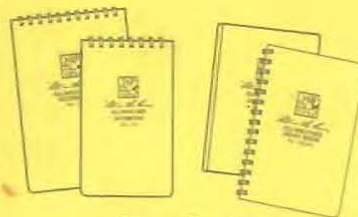
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No. 351

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Northeast Cape, St. Lawrence Island Alaska
ISCO Treatment/Intrusive Drom Removal/Landfill Cap

4 5/8" x 7" - 48 Numbered Pages

Job No. 49028

2 of 2



Project In-Situ Chemical Oxidation (ISCO)
and Intrusive Drum Removal /
Landfill Cap
Northeast Cape, St. Lawrence Island,
Alaska

CONTENTS

2 Wednesday 7/29/2009 NE Cape 49028

Cloudy, Cool, Calm 1500/Landfill Drum Removal RS

06:30 Safety: No Smoking signs around fueling areas. Be very aware in Landfill area - good job yesterday. Think ahead about supplies we might need so we don't run out.

- Work on DCCR 034

- Monitor Landfill Excavation

- Obtain signatures from Site Super and OAR for DCCR 034

[Follow-up phase inspection w/OAR

- Initial Phase 2/OAR for Landfill Cap
Follow up was for Intrusive Drum Removal

- OAR noted that we need a PID at the excavation

- OAR recommended waste characterization sampling of the drums and soil

- 11 total drums today

- 5 batteries

End @ 1900 (11.5)

Joe Jones
7/29/2009

Thursday 7/30/2009 NE Cape 49028 3

Rain, Wind, Fog, Cool, 1500/Drum Removal, Landfill Cap RS

06:30 Safety: Visibility in Bad weather. Keep lights on, windows clean. Watch out for traffic at the landfill

- Work on DCCR 035

- Go to Landfill Excavation @ 10:00

- Lunch @ 12:00

- Return to Landfill @ 12:30

- Return to Camp @ 13:15 to print Report and get signatures

- Email M. Welker about Waste water sampling and treatment

- Send off DCCR at 14:45 to V. Palmer, M. Welker, & C. Croley

- Discuss wastewater discharge permit
Reminder: Talk to AECOM about using their YSI and Turbidity Meter.

- Landfill Excavation - continues

- Check HWAP - Drums are stored nicely - Discuss logistics w/Zong Byers

- 11 drums and 7 batteries at end of day
End 1900 (11.75)

RS 7/30/2009
Joe Jones

4 Friday 7/31/2009 NE Cape 41028 RS
cloudy, Cool 1500/Dram Removal/Landfill Cap

0630 Safety: Proper lifting technique when handling heavy objects. Stay Clean: Wash hands and clothes. Take advantage of the facilities.

- Another Containment will be constructed today.
- Work on DPCR 936

- GPS features at Landfill:

Using Trimble GeoXT 2003

- Terrasync software - Lat/Long

Datum: WGS 84

① TBM-G ② Current Excavation Area

③ Rd Centerline ④ East side

of Road Backfill Area

Photos from Road of backfilled/

Capped areas in Landfill

⑤ ECO RTK 3 - photo facing E

Shows RTK 3/GPS w/drum in background

⑥ RTK #2 - The gps unit is
see 8-9 satellites and getting WAAS

7/31/09 R. J. P.

5
HWAP Drum Inventory (11:00)
USED Oil

① A-1 ② A-2 ③ A-3 ④ A-4
⑤ A-5 ⑥ A-6 ⑦ A-7 ⑧ A-8
⑨ A-9 ⑩ A-10

Oily Debris

① PA-1 ② PA-2 ③ PA-3

④ PA-4

PA-1 & PA-2 are 85 gallon drums

Oily Sludge

① D-1 ② D-2 ③ D-3

④ D-4 ⑤ D-5 ⑥ D-6

⑦ D-7 ⑧ D-8 ⑨ D-9

Filter Pillows

① F-1 ② F-2 ③ F-3

- There are at least 12 lighting
ballasts and 2 totes nearly full
of Batteries

7/31/09 R. J. P.

- QAF mentioned capping:

Q7: Are we capping the entire landfill, or just the areas we've excavated?

- Will determine cost for fill Material Contract Mod.

- Plans call for 38,000 yd³ of material. If we're not using that much, then it should be taken out of the Contract Mod. ~~1/2~~ 7/1

- Talk with Chuck. He says we will be capping the entire hill.

- Set grade stakes @ backfill area

- Eleven drums @ end of day

- Seven batteries @ end of day

- End @ 1900 (11.5)

RS 7/31/2009

[Signature]

Saturday 8/1/2009 NE Cape 49028

Rain, Wind, Cool ^{Drum Removal/Landfill cap/} 1500 Treatment ~~125~~

Objectives: Waste Sampling, Landfill Capping, MonWell Install, Well development

Obj. 30 safety: Changing traffic pattern at the landfill. The winds are picking up, so be aware, hold on to doors. Sampling will occur this morning.

Work on ZOCR EST

- Talk w/Chuck about the capping procedures

- Landfill will be collecting Waste Characterization samples from the soil Corex containers this morning. Analyzing for PCB, DRO, TCLP RCRA Metals (6010, 7471A), TCLP Benzene (8260B)

- Collecting in 1x8oz jar and 1x4oz jar per sample

- Find out what we're doing w/the drill cuttings and how we plan on tracking the waste

- Chuck said we were going to dispose of the drill cuttings in the 55 gallon drums they are now in

8/1/09
[Signature]

- Monitor Excavation @ Landfill
- Send DOCR 037 to Molly, Chuck, and Valeria
- Put Waste Characterization samples into the refrigerator.

End 18:30 (11.5)

RS 8/1/09

Red Jones

Sunday 8/2/2009 NE Cafe 49020

Partly cloudy, cool cool/Drum Removal Landfill Cap RS
 @ 30 safety: Common sense and close calls. Chuck read 2 articles about common sense and close calls.

- Work on DOCR 038

- Landfill Excavation
- Some of the sludge drums appear to have free product in them, so they are going to be pumped/transferred into a closed top drum
- 10 drums. 5 batteries @ End of day
- Hydraulic line broke on the skid steer @ ~ 14:00 Very little oil was spilled - amount unknown at this point - If over 1 gallon, then the spill will be appropriately reported to ADEC < 1 gallon
- E. Barnhill took a FID reading of soils from the hydraulic spill at the borrow source. All readings were 0

End 18:15 (11.25)

RS 8/2/09

Red Jones

Monday 8/3/2009 NE Cape 1000/Drom/landfill
Cap, Fog, Mist, Cool Job No. 49028 RJ
06:30 Safety: Article on Cold Stress, -layer,
have an impermeable layer to guard
against water. Stay dry

- Work on D&R 039

- Continue Landfill Excavation

- Finish Excavation ~ 1530

- Check GPS to Confirm Anomaly
Location - All Anomalies have
been explored

- Package and label samples in preparation

of Bering Air Flight

- Load Samples onto Flight @ approx
19:40 —

RJ 8/3/2009

[Signature]

Tuesday 8/4/2009 NE Cape 49028
Cloudy, Cool Landfill Cap/1500 Treatment RJ
Objective: Clean Droms. Haul Material for
Landfill Cap
06:30 Safety Meeting:

- 2 Trucks will be Hauling today. Drom
cleaning and oil transfer will be taking
place at the HWR

- Work on D&R 040

Chlor-D-Test 1000 Screening

A1 - Pass 10:14 RJ

A2 - Pass 10:15 EB

A3 - Pass

A4 - Pass

A5 - Pass

A6 - Pass

A7 - Suspect

A8 - Pass

A9 - Pass

A10 - Suspect

A11 - Fail

[Signature] 8/4/09

EB took Waste Characterization Samples:

⇒ WMXU Cell - #11

Analyzing for DRO, PCBs, TCLP

RCRA Metals, and TCLP Benzene

Filling 1x8oz jar

1x4oz jar

⇒ WMXU 0005 - #12

End @ 18:00 (11)

RS 8/4/2009
for Jan

Wednesday 8/5/2009 NE Cape 49228

1500 / Drum Removal / Landfill Cap

Foggy, Cool, Partly Cloudy

RS

06:30 Safety Watch for Load 4-wheeler

traffic. Change of Pattern in Traffic.

Watch for fatigue and stay focused.

We will be digging test pits today to check the fill levels.

- Work on D&R 04/

- Digging Test Pits in Landfill to measure fill depths

① Top Center of hill

Fill 1.5'

② Top-East side Near Rd

Cut 5' - Cut 6"

③ Top-NE-Near Rd

Cut 18"

④ Near N-Road Entrance to Landfill

- No CUT / NO Fill - 2'

⑤ Near top of slope - NE side near Road

- Cut 2' - 24"

⑥ North LF off LF loop Rd

- CUT 6"

- ⑦ Top of Hill NW side
 OK
 ⑧ Lower Hill NW side
 OK
 ⑨ Low Hill West side
 Fill 6"
 ⑩ Upper Hill - just NW of LF Loop
 Rd.
 - OK
 ⑪ East side of Cargo Rd
 - Fill 6"
 ⑫ Eastern Rd bank - S side
 - OK

Total $3\frac{1}{2}$ areas that need
 Fill

- GPS the pit locations

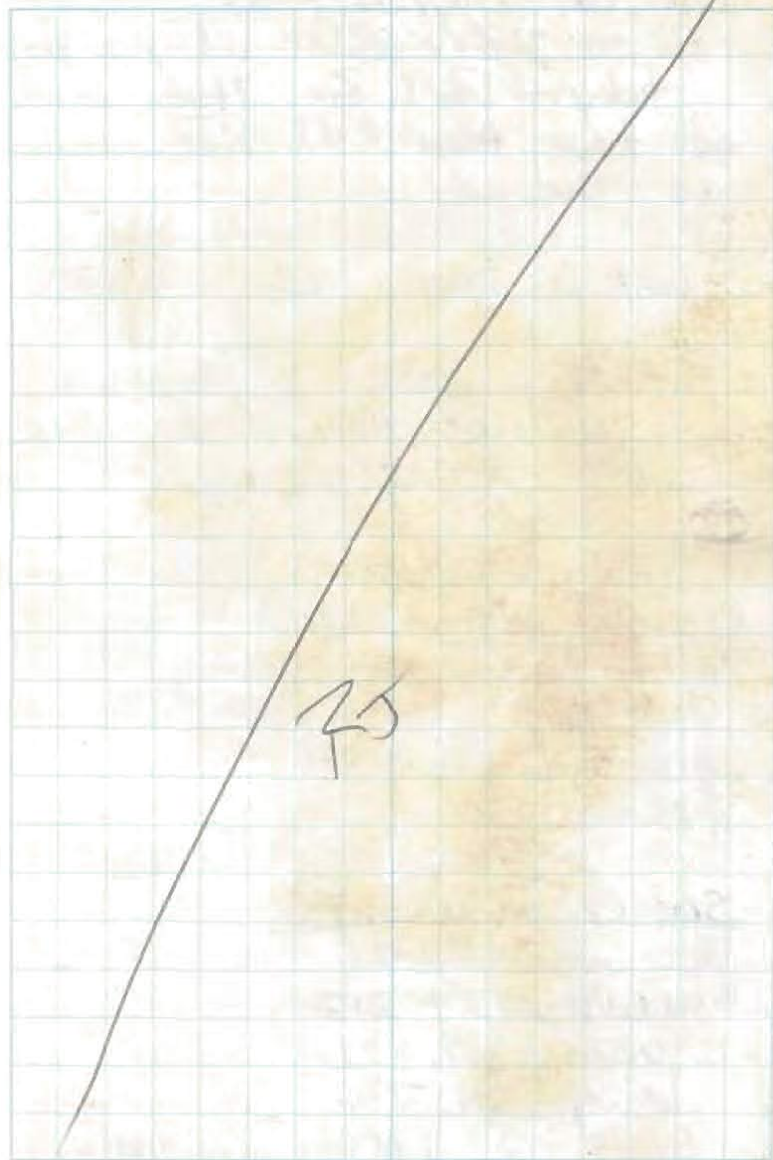
- Finish DOCR on

- Continue GPS locations

- Plane Arrived ~ 19:30 - loaded samples
 onto plane

End of 11:30 (11:25)

7/2/09 3/15/09



Thursday 8/6/2009 79025 NE Cape

Clear, Cool 1700/landfill cap RT
 80-90 Safety: Watch out for visitors
 today - Don't Run them over.
 We have more Reflective vests
 on the way

- Work on DQCR 042
- Pref Phase Meeting @ 08:00
 - Will be attached to DQCR
 043 for 8/6/2009

Chlor-D - Test

A-7 - Pass
 A-11 - Fail
 A-10 - Fail
 A-15 - Fail

Soil Core Weights

WMXU 6065 - 11,620
 WMXU 6141 - 27,212
 6025 - 29,580
 6024 - 24,380
 6095 - 33,970
 6017 - 41,310

8/6/09
 for Jones

4285 - 36,880

102.5 tons

Drum Waste Characterization Sample

= Hot Oil =

Sample ID: 09NC007DW01

Time: 10:15

Analyzing for: PCBs 8082

TECP VOCs 8260B

TECP Metals REPA 5 4010B/777

Total Halogens EPA 905C

Specifications (ignitability, total Halogens,
 PCBs and Metals) - EPA 1020A,
 905C, 8082, 4020

Sample ID: 09NC007DW02*

Time: 10:30 - Duplicate

Same analyses as above

* indicates duplicate sample

8/6/2009 for Jones

Sludge Sample - Oily Sludge

⇒ Sample ID: 09NCO07DW05
Analyzing for: Time: 17:30

TCU Metals

TCU VOCs EPA 600B/7471A

PCBs EPA 8082

→ EPA 8260B

Sample ID: 09NCO07DW06*

- Duplicate Sample to DW05

- Same Analyses as above

Time: 17:45

- Check to see where the
drill cuttings are going for disposal

- Up to A-22

- Up to D-17 of oily debris/kitty
litter contaminated w/oil

- 2 totes w/ batteries

End @ 18:15 (11.25)

/RS 8/16/2005

Friday 8/17/2005 NC Cape 19028

1500

Clear, Cool, Calm Winds

RS

06:30 safety: Watch out for local
Y-wheelers Scott Pittenger spoke
about the dangers of the oxidants
that are going to be used for the
injection

- Work on DOCR

Tote Weights

Battery 2 - 1100 lbs - Tote

Battery 1 - 2,500 lbs - Tote

Print DOCR 042 for Signature

- Head to Landfill to watch the
backfill process. Lay down Reference
stake for operator showing

6" Watch Marks

- Take photos of the backfill/
Capping process

- Continue Monitoring the Capping

- Get Carey Cassabian's signature
on DOCR 042

- Email DOCR 042 - Travel to HWAQ
Get Turbidity and pH of Containment

End 19:00 (12) RS 8/17

20 Saturday 8/8/2009 NE Cape 49028

Cloudy, Cool 1500/landfill cap RS
06:30 safety: Don't get complacent
here at the end of job. Stay aware of
the Machinery!

- Work on DQR 043 and 044
- Deliver to C. Coley and Carey
Cassabach for signatures
- Go to landfill to Monitor backfill
capping process
- Show Carey the cut and fill
stakes from the test pits
that were excavated to determine
fill levels

- Scott Needs 8 big Class 8
placards ordered

- Fill pits at Landfill
14:00:

- GPS file created "20090808"

- ① FP 1 - OK photo: 0674.jpg
- ② FP 2 - OK photo: 0675.jpg
- ③ FP 3 - Bottom Hill next to NW
pond - OK - 0676.jpg

8/8

21

④ FP 4 - 0677.jpg/0678
- OK photo

⑤ FP 5 - 0679 photo
- OK

⑥ FP 6 - 0680 photo #
- OK

⑦ FP 7 - 0681 photo #
- OK

⑧ FP 8 - 0682 photo #
- OK

⑨ FP 9 - 0683 photo #
- OK

- E Barnhill is taking a wastewater
sample ~ 17:00

- Ask Chuck about the Temp
Bench Mark left by the
surveyors. Can it be covered?

8/8

22 Sunday 8/9/2009 NE Cape 49028

Foggy, Cool 1500/1000/1100

06.30 Safety: Radios can sometimes be spotty. If you hear a message for somebody, pass it on. Stay aware of surroundings and don't rush.

- Work on DRC 045

- Obtain DAR signature for DRC 044

- Check out site 9 and the creek below the MOC that runs to the Sugj River
- Map site 9

- Pics begin @ 0700-jpg for site 9

Set up Instrument, level @ top Center of Mound
Inst. Height = 3.95'

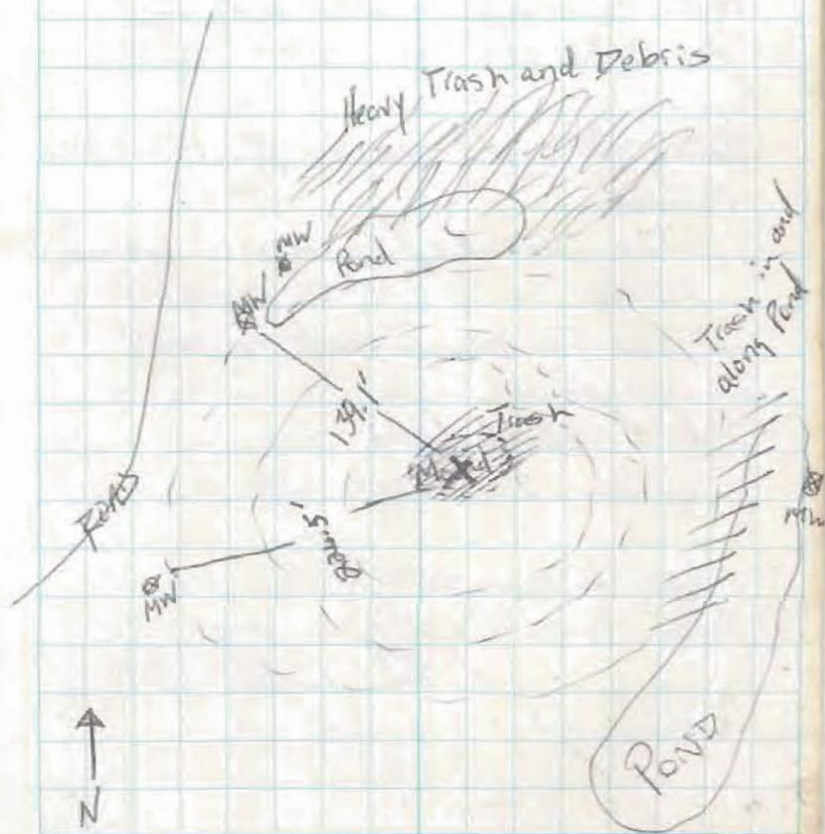
① 4.25'	② 6.15'	③ 6.70'
④ 7.65'	⑤ 7.13'	⑥ 5.20'
⑦ 4.86'	⑧ 2.75'	⑨ 5.07'
⑩ 6.32'	⑪ 8.08'	⑫ 9.61'
⑬ 9.71'	⑭ 9.55'	⑮ 8.48'
⑯ 7.92'	⑰ 6.80'	⑱ 5.77'

⑳ 12.16' e NW Monitoring Well

8/9

23

Mounded Area appears to be a natural topographic High. Trash is along the edges and consists of batteries, drums, equipment parts, Radiators, Wood, glass, Miscellaneous Iron, Tires. Heaviest on the N and East Side. Wetlands prevalent except on hill



8/9/09

- Washed the Environmental truck at the HWRP
 - Check w/ Scott Schultz on whether Emerald will need an Ash sample for the smartAsh disposal
 - The containments are nearly ready for Removal
 - Bering Air and security Aviation both Arrived.
 - The weather/Fog cleared around 12:00
 - The Fog moved back in ~17:30
- End 18:00 (11)

FS 8/10/09

- Monday 8/10/2009 NE Cape 49028
- 1500/Landfill Cap Foggy, Cool ~~RT~~
- 06:30 Safety & Good Job! Keep up the good work at a steady pace. The job is winding down, but stay focused and keep a steady pace.
- Many crew will be leaving this week. Thanks for a good job
 - Work on DEER 644 for 8/9/09-Sunday
 - Create maps regarding Site 9 in ArcMap
 - Investigate burn area at fish Camp on beach
 - Investigate area around the Runway and the creek below the MOC that runs into the Sugj River
 - Discard used oil from my 1/2 jars that are not needed into A-11 and A-10
- End 18:00 (11)

FS 8/10/09

Tuesday 8/11/2009 recap 19029
1500/landfill cap clear, cod RJ

00:30 Safety: Have a safe
transition back home

- Landfill Capping continuing
some photos taken of the
operation

Laborers are performing various
tasks from helping Hecom, cleaning
equipment, cleaning up work areas
~~11:30~~ 8/11/2009 Hauling Conexes.

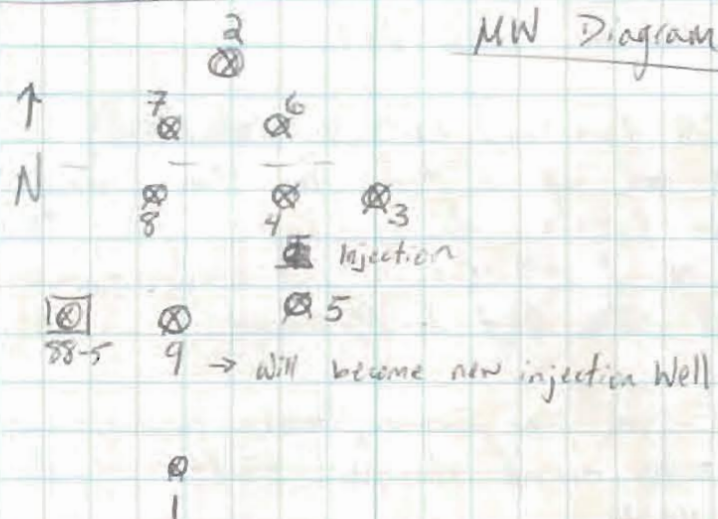
The area on the east side
of the Road at the landfill
where the drums were visible
was covered w/fill and the
area where 6" more was
needed was filled as well

10:30 Landfill Cap operator
currently covering top of hill

Hecom noticed oxidant
seeping out of the ground
at the 1500 area, so
additional Injection may not occur
8/11/09

Landfill Cap over the natural
Sd at the landfill should be
cut back to the minimal amount
of fill necessary to make the
cap functional.

1500 Site



End @ 18:00 (11)

RJ 8/11/09

1500/Landfill Cap Fussy, Cool

RJ

06:30 Safety: Aggressive Driving Advice:

Beware of aggressive drivers and
Road Rage back in town. Watch for dips,
humps and falls at the Landfill during
fertilizing and seeding operations

- Work on DACK OYS
- Call Eco-Land, LLC to attempt
to set up a time for the Surveyor
to return to NE Cape for the
final Survey - No answer, a
message left
- Survey the Beach, Roads, and other
sites around the Work Site w/GPS
unit
- Visit AECOM at 1500 site
 - They show a fissure in the
ground and explain that relatively
high pressures and temps were
obtain during the injections at
MW09

- Plane arrived ~ 16:00
Food, fertilizer and seed
arrived
- Mike Gallegos and Kevin
Fitzgerald left the site

End 18:00 (11)

RJ

[Signature]
8/12

1500/Landfill Cap. Rain, Cool

RJ

06:30 Safety: Side-by-sides will be used for seeding and fertilizing today.

- We need sample Results ASAP for the Waste Characterization

- Work on DCCR 049

- Download GPS data from yesterday

- Talked to Scott McClintock about coming out on Monday to perform the post-construction Survey - He will plan on at least an overnight stay

- Visit to Landfill \Rightarrow Fertilizer is being spread - West portion was completely spread

- Landfill operator is finishing the Cap - Track-Walking.

- Seed will be spread following the fertilizer

- Photos taken of the Landfill

See you 5/13

- Barge will be off shore the morning of the 2nd

- Some waste characterization samples were received via email.

- Terri Torres said the lab had some technical difficulties that caused delays in the Results getting to us. She sent us some preliminary data, but only for limited analyses.

- Discussed the sample Results with Scott Schultz - We'll have to wait for some more data before we can load the Conex

End 1800 (11)

RJ

R. Jones 11/13

32 Friday 8/14/2009 NE Cape 49023 BERS

Rain, Cool - Calm Winds Sea/Landfill Cap R

06:30 Safety - Alcohol burn today. Do not approach the burn. It will be hard to see the fire, but it will be hot.
- Bring the light tower to camp this morning. We will need it for the morning since it's getting darker everyday.

Objectives: Continue demo prep.

- Awaiting analytical in order to load wastes into Conex for transportation.
- Airplane is expected this afternoon.

- Work on DQCR 050

- Email to Corley @ 05:30

- E. Barnhill and S. Schultz are trying to obtain lab results from TestAmerica

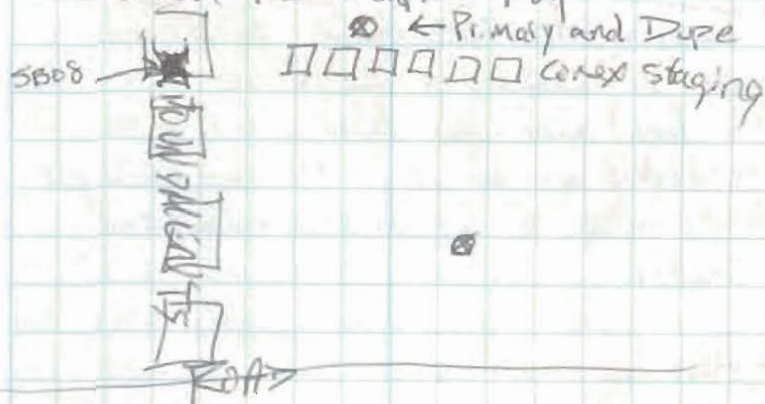
- EAB collects Drum Pad samples ~ 09:45

Samples will be analyzed for
Refr Metals, PCBs, PROKRO, PCBs (8081),
and GROBATX

See James 8/14

33

Drum Pad Sample Map



- Review Preliminary Sample Results
 - Rewrite labels for the Kitty Litter / Oil Sludge drums for Manifest 000297302FLE-10
 - Visit HWAP and pull plywood off top of drums so they can be accessed to reattach the label
 - Plane arrives ~ 20:00 - 1 person - (Not field crew, a local man) MedEvac to Nome.
1/2 crew left the site: Jeff Atkins, Bruce Schneider, Michael Tedie and Eric Barnhill
- End 11:30 PM 20:30 (11.5)
/ the Jones 8/14

Saturday 8/15/2008 NE Cape 49028

Clear, Cool 1510/landfill cap

RS

06:30 Safety Good Visibility this

Morning, don't let that scare you. We'll be working a variety of tasks today. The local who was MedEvaced out yesterday will be okay. It's nice that we were able to supply him w/food and shelter.

- Work on DQR 051
- Organize GPS/GIS in preparation for the surveyors' arrival on 8/17
- Review sample results w/Scott Schultz - he will load the drums into the Conex this afternoon
- Note: Check w/AECOM about sample TAT - Can the samples go standard or do they have to be RUSH?
- Wastewater TAT and TagH are below the discharge criteria. If PCB results are below

8/15 Bill Jones

5 ug/L then the water will be ready for discharge.

- Sediment investigation photos begin at 0910.jpg
- GPS features around the MOC and Sugj River
- Talk to S. Schulte from Emerald. Still no PCB sample results
- Email from M. Welker - No PCB results due to technical difficulties at the lab

End 18:00(11)

RS 8/15

Bill Jones

Sunday 8/16/2009 NE Cape 4°10'20"

Cloudy, Cool 1500/Landfill Cap/Drum Removal RJ

06:30 Safety: Moving Fuel ISO's. Wear PPE, Harness. Keep good communications on the Radio - The ISO's will be moved to the beach.

- 2 crew, Dean and Doug, Move to Global Services' payroll and will be working on deconstructing the camp.
- A plane will come today if the weather allows - Robert Nelson will be leaving
- Work on DQCR 052 for 8/15/2009
- Get Signature from Chuck for DQCR
- Photograph the Fuel Storage Area. It has been taken down - The liner is being taken up by George and Carl.
- GPS some features down on the beach w/Chuck
- Plane arrives (Bering Air) - 3 Global Personnel Arrive: Steve Byers, George Rowe, and Tim

- Jack Willis and Robert Nelson left the Site.
- Global began deconstructing the Camp
- AECOM Finished sampling the Monitoring wells.
- AECOM staked out areas ~~that~~ that they would like to be surveyed when the surveyors arrive

End 18:00 (11)

RJ 8/16/09

[Signature]

38 Monday 8/17/2009 NE Cape 49028

Clear, Cool 19°C/Landfill Cap/2mm Personal **RS**
06:30 Safety: A lot of work being performed
in a small space. Be aware of what's
around you when operating equipment,
especially in the skid steer.

- Work on 20CR 053

- Go to AECOM Conex - get blue drums
for Purge Water

- Pick up overpacks from HWAP -
The overpacks will hold the blue
poly drums. AECOM will use them
for purge water during later sampling
events

- Label the overpacks for Haz Waste
8 placard (corrosive) was
attached

- Fill out Goldstream form for AECOM's
water samples that will ship
today.

- Air Waybill # 2303 2135

- Make Copy of AECOM's COC

39

Notes for AECOM: AK101/8200B and
D6/RFO samples ~~should~~
for MS/P should be collected
w/double the bottles

- Visit 1500 site with AECOM and they
showed me the features that
they would like to be surveyed

- Plane arrived ~ 12:30 - Eco-Land
surveyors arrived - Scott McClintock
and Janice - They will be
performing their base surveys and
working on the landfill Cap topo
for the remainder of the day

- Landfill Cap topo survey completed
~ 17:00 - Travel to 1500 site
w/surveyors to check out what
will need to be surveyed tomorrow

- Return to Camp and ^{check} email - Message
from Molly - No Results Today -
End 1800(11) / **RS** 8/17/09

Tuesday 8/18/2009 49023 NE Cape

Clear, Cool 57°-70°F 1500/Landfill Cap ~~RT~~
08:30 Safety/Excavating at the 1500
site. Make eye contact w/operator, watch
the swing Radius.

- Get Chuck's signature on DGC 053
and Email to Molly. Work on DGC 051

- Receive AECOM daily Report from
Lance Preuss

- Fill out pre-final and punch-out inspection
forms for Ditch Removal and
Landfill Cap. Print Forms.

- Print follow-up inspection for 1500
site.

⇒ 2 Pre-finals Today
1 follow-up Today

All CLIN Addressed today
w/inspections

- Talk to M Walker - she will
talk w/Bill Ficke @ AECOM to
discuss logistics of the 14 and 28
day sampling event

- Visit Surveyors at 1500 site -
They are performing a general Survey
of the whole area

- Charge GPS Unit.

- Site Photos

- ① 1010.jpg - Landfill seen from
Rd Intersection
- ② 1011.jpg - Survey at MOC
- ③ 1012.jpg - 1500 4" PVC and
~~East~~ Trenches for Sil Sample
- ④ 1013.jpg - Borrow Area
- ⑤ 1014.jpg - Borrow Area
- ⑥ 1015.jpg - Landfill Cap from
Rd near borrow pit - showing
South side of Cap
- ⑦ 1016 - Culvert - S-side at LF
- ⑧ 1017 - N-side of Culvert at LF
- ⑨ 1018 - Landfill as seen from HWAP
- ⑩ 1019 - HWAP - West viewing
- ⑪ 1020 - Beach Staging - West viewing
- ⑫ 1021 - Beach Staging - East viewing
- ⑬ 1022 - E side of LF - Note removed Sil Force
- ⑭ 1023 - E side of LF

- TRENCHES Surveyed @ Landfill
@ 12:30 - 13:00
- 13:15 - Survey Leaf Rd at Mac
Bayin 1300 Survey
- Aid AECOM in installing the 6" PVC pipes that will be used for ~~groundwater sampling~~ soil sampling during the 7 day and 28 day sampling event
- Email from M Welker says I will be joining AECOM for the 1st and 20 day sampling events
- ⇒ Collected Final Drum Pal (HWAAP) Sample
→ Sample ID: 09NCO07SB08
Analyzing FOR: GRO/BTEX AKK/5200B
PCBs EPA 8082 and ~~TCM/8 metals~~
EPA 6010A/7471
DRO/RRO AK102/103
- A GRO/BTEX Preserved w/MeOH
TIME = 17:45
8/19/2009 8/18/09

- Fill out COC for samples
09NCO07SB05 8/14 09:45
" SB05 MS/D 09:45
10:00 → " SB06 - Duplicate of SB05
" SB07 10:15
" SB08 8/18 17:45

- COC: 20090819 FOR TESTAMERICA
TALOMA

End 19:45 (12:75) ~~RS~~
Visit 1500 site
and help w/ the Hand
Augering
8/18/09 21:00
~~RS~~ ~~Hand Augering~~
(13.5)

8/19/2009

~~Hand Augering~~

44 Wednesday 8/19/2009 NE Cape 49028

Clear, Cool mid/noon Removal/Landfill Cap RS
06:30 Safety: Communications: Key to
Safety. We've done a good job of
communicating so far.

- Scan Pre-final Inspections

- Work on DCR 855

- Pack Samples

- Take DCR & Chuck and deliver
pics and DCRs via jump drive

- Phone # for Eugene's family in
Savonga: (907) 984-6228

- Key for the Knack gang box - All 2 ^{key}
- Talk to Chuck

- Savonga Village Offices

Sylvia: 984-6414

Floyd: 984-6514

Myriam - Gene's daughter-in-law

Phone #

Name Todd Fischer - 244-1606

- Will have Freezer

45

- AECOM should contact Todd
Fischer

- Bering Air: 907 443-5464

Dave Olsen: 443-8985

Jackie Henry on Weekends

Dispatch 443-5041

Combo Lock Codes: 0112

- Tools under the side x side

- Talk to Johnny about the
side x side 10 bolts to remove
the top during transport

- Day 28 - Eugene will be here
to Assist - Day 3 - CASA

Complete demol water box -
side x side

46 Tuesday 8/25/09 ISCO site Clear, Cool
14 day sample event ~40°F

Northeast Cape Job No. 49028

06:30 Safety - Protect Hands, Back, and
Eyes. Lead by Lance Preuss (LP)

LP, Aaron Jambroski, Russell Jones

- Arrive NEL via Bering air ~09:30

MW04 1125 sample time

09ACMOGW34

DRO/RRO

GRD/Benzene/Naphthalene

AK102/102

AK101/ EPA 8200B

- Assisted by Eugene Toolie
- Low-flow sample Method
- Sampled 7 monitoring wells - MW02 - MW08
 - collected 1 duplicate from MW02
 - collected 1 MS/D from MW03
- Sample logs filled out for each MW
- AJ ran Chemets field screening
- Repack Knack box - Leave side x side w/Eugene

- Leave NEL ~ 19:00

End 20:30 (14)

/RS Jones 8/25

The List

- ① Sample the failed Chlor. D-Tests
- ② Sample the oily sludge
- ③ Sample Soil Coneres
- Get ~~*~~ Container Weights
- ④ Batteries
 - ① Inventory
 - ② Collect
 - ③ Ask George about Poly Drums
 - ④ Consolidate
- ⑤ Walk the site and look Around
- ⑥ GPS the excavated Area

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FIELD

All-Weather Notebook
No. 351

Russell James
Bristol Environmental Remediation
Services, LLC - BERS
Northeast Cape St Lawrence Island
Alaska
ISCO Treatment/Intrusive Drum
Removal/landfill Cap

4 5/8" x 7" - 48 Numbered Pages

Job No. 49028

2 of 2

APPENDIX D

Spill Report



111 W. 16th Avenue, Third Floor
Anchorage, Alaska 99501-5109
907-563-0013 Phone
907-563-6713 Fax

DATE: August 19, 2009

TO: Brian Jackson; Alaska Department of Environmental Conservation

FROM: Molly Welker, Bristol Environmental Remediation Services *Molly Welker*

RE: Northeast Cape St. Lawrence Island Hydraulic Fluid Spill

On July 20, 2009 at approximately 1600 hours a hydraulic fluid line on a Volvo 330L Loader/Forklift failed near an active borrow area where rock and soil was being removed. The broken fluid line resulted in a hydraulic fuel spill. The spill was of approximately 15 to 20 gallons of petroleum based hydraulic fluid which was subsequently recovered and reported to the Alaska Department of Environmental Conservation.

The cleanup activity consisted of removing the spilled hydraulic fluid along with the surrounding soil and rock. The materials were removed using shovels. There was approximately three cubic yards of soil/rock removed along with the spilled fluid; the excavation was approximately four to six inches in depth and covered an area that was approximately 10 feet by 20 feet. The removed materials were shoveled into open top 55 gallon drums, and the contents of the drums were later moved into a lined open top Conex which will be barged to a disposal facility.

After the cleanup activity was finished and the vehicle was fixed and moved Bristol personnel took soil samples from spots along the length of the excavation. There was no odor or visual evidence of petroleum product observed. Six samples were taken from various spots along the spill area including sidewalls and excavation bottom. The soil samples were placed in sealed Ziploc bags and were allowed to volatilize in the sun for a period of approximately twenty minutes. At the end of twenty minutes PID readings were taken of all of the samples. All samples had a PID reading of zero.



Hydraulic Spill Site after Cleanup



Hydraulic Spill after Cleanup

Bristol

ENVIRONMENTAL & ENGINEERING
SERVICES CORPORATION

Job No. 49028

Project: Northeast Cape Landfill

Computed:

Date: 8-19-09

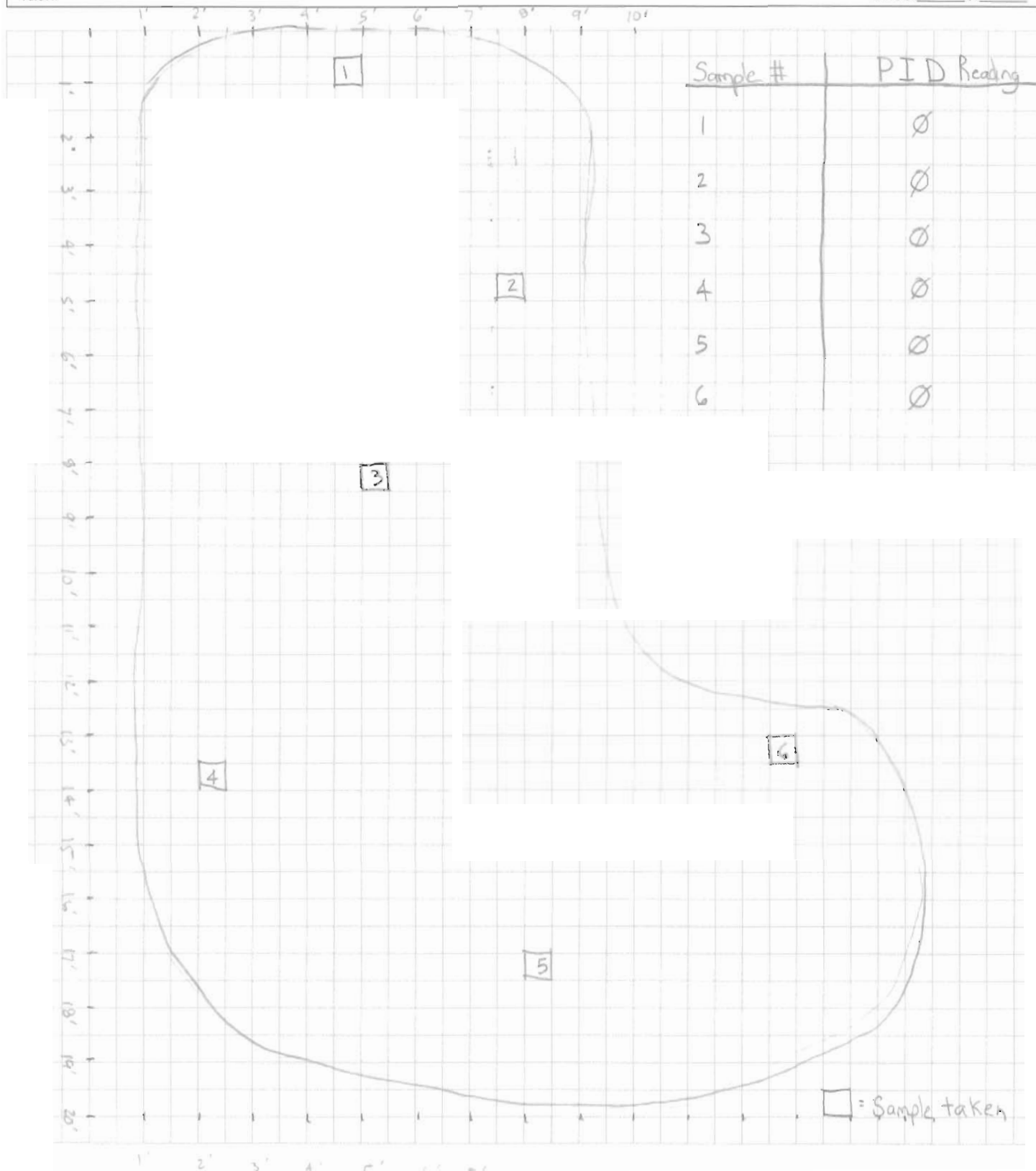
Subject: Hydraulic Fuel spill

Checked:

Date:

Task:

Sheet of





ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORM

ADEC USE ONLY

ADEC SPILL #:		ADEC FILE #:		ADEC LC:	
PERSON REPORTING: Russell James		PHONE NUMBER: (907)563-0013		REPORTED HOW? (ADEC USE ONLY) <input checked="" type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> Troopers	
DATE/TIME OF SPILL: 7/20/2009 16:00		DATE/TIME DISCOVERED: 7/20/2009 16:00		DATE/TIME REPORTED: 7/21/2009 09:30	
INCIDENT LOCATION/ADDRESS: Northeast Cape, St. Lawrence Island, Alaska		DATUM: <input type="checkbox"/> NAD27 <input type="checkbox"/> NAD83 <input checked="" type="checkbox"/> WGS84 <input type="checkbox"/> Other		PRODUCT SPILLED: Hydraulic Fluid	
		LAT. 63°18'0.903"N			
		LONG. 168°57'11.086"W			
QUANTITY SPILLED: 15-20 <input checked="" type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY CONTAINED: <input type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY RECOVERED: 15-20 <input checked="" type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY DISPOSED: 3 yds soil <input type="checkbox"/> gallons <input type="checkbox"/> pounds		
POTENTIAL RESPONSIBLE PARTY: Name/Business: Bristol Environmental Remediation Services, LLC Mailing Address: 111 W 16th Ave., Third Floor Contact Name: Steve Johnson Contact Number: (907)563-0013		OTHER PRP, IF ANY:		VESSEL NAME:	
				VESSEL NUMBER:	
				> 400 GROSS TON VESSEL: <input type="checkbox"/> Yes <input type="checkbox"/> No	
SOURCE OF SPILL: Volvo 330L Loader/Forklift hydraulic lines.		CAUSE OF SPILL: Hydraulic line break.		CAUSE CLASSIFICATION: <input checked="" type="checkbox"/> Accident <input type="checkbox"/> Human Factors <input type="checkbox"/> Structural/Mechanical <input type="checkbox"/> Other	
		<input type="checkbox"/> Under Investigation			
CLEANUP ACTIONS: Placed absorbents over the spill. Shoveled dirt with liquid into drums. Overexcavated soil with excavator down to clean soil/gravel.					
DISPOSAL METHODS AND LOCATION: Placed in lined container (total of 3 yards of material) and sent to a disposal facility.					
AFFECTED AREA SIZE: 10 X 20 feet	SURFACE TYPE: (gravel, asphalt, name of river etc.) gravel and rock		RESOURCES AFFECTED/THREATENED: (Water sources, wildlife, wells, etc.) None		
COMMENTS:					

ADEC USE ONLY

SPILL NAME:		NAME OF DEC STAFF RESPONDING:		C-PLAN MGR NOTIFIED? <input type="checkbox"/> Yes <input type="checkbox"/> No	
DEC RESPONSE: <input type="checkbox"/> Phone follow-up <input type="checkbox"/> Field visit <input type="checkbox"/> Took Report		CASELOAD CODE: <input type="checkbox"/> First and Final <input type="checkbox"/> Open/No LC <input type="checkbox"/> LC Assigned		CLEANUP CLOSURE ACTION: <input type="checkbox"/> NFA <input type="checkbox"/> Monitoring <input type="checkbox"/> Transferred to CS or STP	
COMMENTS:		Status of Case: <input type="checkbox"/> Open <input type="checkbox"/> Closed DATE CASE CLOSED:			
REPORT PREPARED BY:		DATE:			



111 W. 16th Avenue, Third Floor
Anchorage, Alaska 99501-5109
907-563-0013 Phone
907-563-6713 Fax

DATE: August 19, 2009
TO: Brian Jackson; Alaska Department of Environmental Conservation
FROM: Molly Welker, Bristol Environmental Remediation Services *Molly Welker*
RE: Northeast Cape St. Lawrence Island Hydraulic Fluid Spill

On July 20, 2009 at approximately 1600 hours a hydraulic fluid line on a Volvo 330L Loader/Forklift failed near an active borrow area where rock and soil was being removed. The broken fluid line resulted in a hydraulic fuel spill. The spill was of approximately 15 to 20 gallons of petroleum based hydraulic fluid which was subsequently recovered and reported to the Alaska Department of Environmental Conservation.

The cleanup activity consisted of removing the spilled hydraulic fluid along with the surrounding soil and rock. The materials were removed using shovels. There was approximately three cubic yards of soil/rock removed along with the spilled fluid; the excavation was approximately four to six inches in depth and covered an area that was approximately 10 feet by 20 feet. The removed materials were shoveled into open top 55 gallon drums, and the contents of the drums were later moved into a lined open top Conex which will be barged to a disposal facility.

After the cleanup activity was finished and the vehicle was fixed and moved Bristol personnel took soil samples from spots along the length of the excavation. There was no odor or visual evidence of petroleum product observed. Six samples were taken from various spots along the spill area including sidewalls and excavation bottom. The soil samples were placed in sealed Ziploc bags and were allowed to volatilize in the sun for a period of approximately twenty minutes. At the end of twenty minutes PID readings were taken of all of the samples. All samples had a PID reading of zero.



Hydraulic Spill Site after Cleanup



Hydraulic Spill after Cleanup

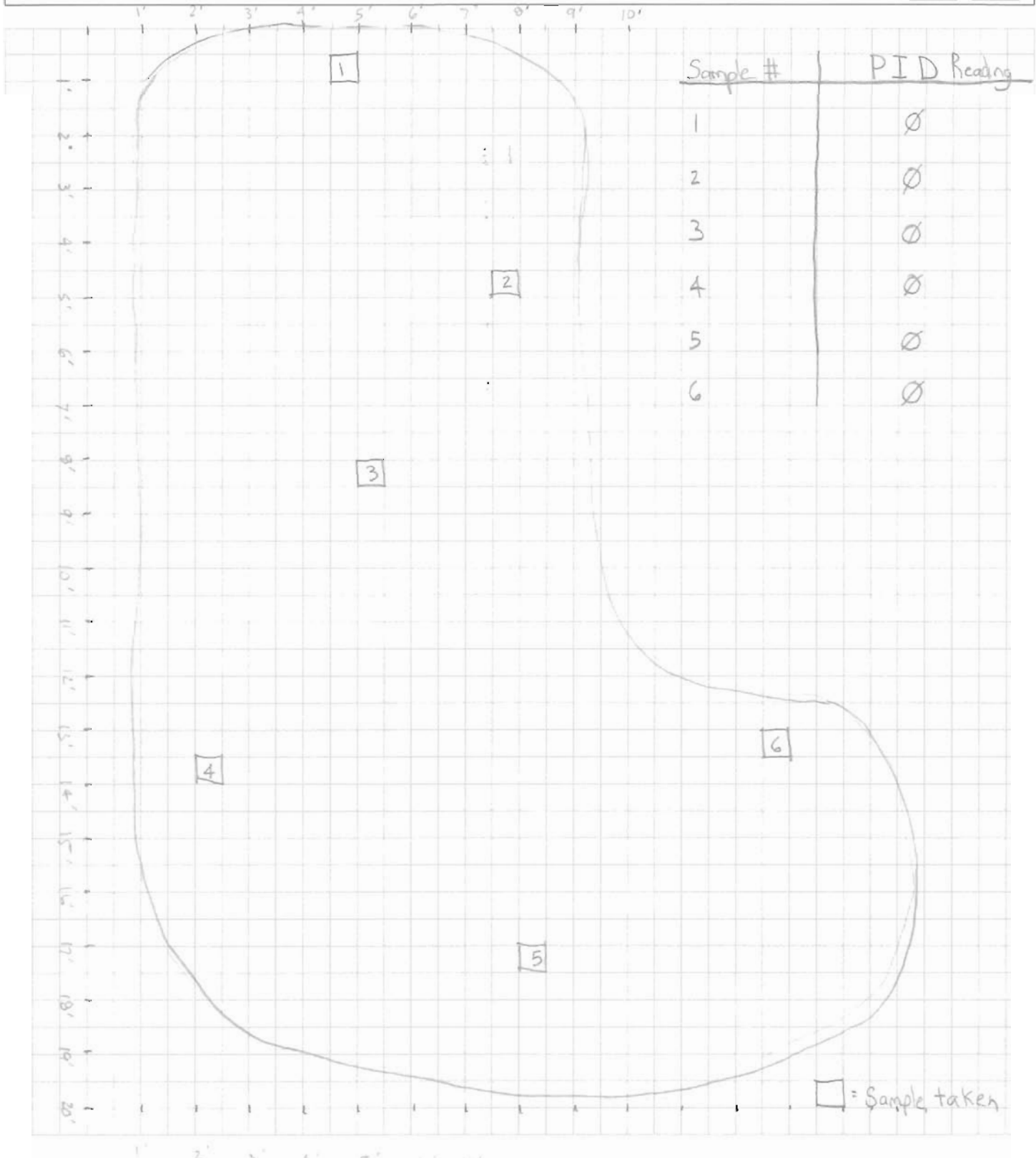


Bristol

ENVIRONMENTAL & ENGINEERING
SERVICES CORPORATION

Job No. 49028

Project: <u>Northeast Cape Landfill</u>	Computed:	Date: <u>8-19-09</u>
Subject: <u>Hydraulic Fuel spill</u>	Checked:	Date:
Task:		Sheet <u> </u> of <u> </u>





ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORM

ADEC USE ONLY

ADEC SPILL #:		ADEC FILE #:		ADEC LC:	
PERSON REPORTING: Russell James		PHONE NUMBER: (907)563-0013		REPORTED HOW? (ADEC USE ONLY) <input checked="" type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> Troopers	
DATE/TIME OF SPILL: 7/20/2009 16:00		DATE/TIME DISCOVERED: 7/20/2009 16:00		DATE/TIME REPORTED: 7/21/2009 09:30	
INCIDENT LOCATION/ADDRESS: Northeast Cape, St. Lawrence Island, Alaska		DATUM: <input type="checkbox"/> NAD27 <input type="checkbox"/> NAD83 <input checked="" type="checkbox"/> WGS84 <input type="checkbox"/> Other _____ LAT. 63°18'0.903"N LONG. 168°57'11.086"W		PRODUCT SPILLED: Hydraulic Fluid	
QUANTITY SPILLED: 15-20 <input checked="" type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY CONTAINED: <input type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY RECOVERED: 15-20 <input checked="" type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY DISPOSED: 3 yds soil <input type="checkbox"/> gallons <input type="checkbox"/> pounds		
POTENTIAL RESPONSIBLE PARTY:		OTHER PRP, IF ANY:		VESSEL NAME:	
Name/Business: Bristol Environmental Remediation Services, LLC					
Mailing Address: 111 W 16th Ave., Third Floor				VESSEL NUMBER:	
Contact Name: Steve Johnson				> 400 GROSS TON VESSEL: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Contact Number: (907)563-0013					
SOURCE OF SPILL: Volvo 330L Loader/Forklift hydraulic lines.				CAUSE CLASSIFICATION:	
CAUSE OF SPILL: Hydraulic line break.				<input checked="" type="checkbox"/> Accident <input type="checkbox"/> Human Factors <input type="checkbox"/> Structural/Mechanical <input type="checkbox"/> Other	
CLEANUP ACTIONS: Placed absorbents over the spill. Shoveled dirt with liquid into drums. Overexcavated soil with excavator down to clean soil/gravel.					
DISPOSAL METHODS AND LOCATION: Placed in lined container (total of 3 yards of material) and sent to a disposal facility.					
AFFECTED AREA SIZE: 10 X 20 feet	SURFACE TYPE: (gravel, asphalt, name of river etc.) gravel and rock		RESOURCES AFFECTED/THREATENED: (Water sources, wildlife, wells, etc.) None		
COMMENTS:					

ADEC USE ONLY

SPILL NAME:		NAME OF DEC STAFF RESPONDING:		C-PLAN MGR NOTIFIED? <input type="checkbox"/> Yes <input type="checkbox"/> No	
DEC RESPONSE: <input type="checkbox"/> Phone follow-up <input type="checkbox"/> Field visit <input type="checkbox"/> Took Report		CASELOAD CODE: <input type="checkbox"/> First and Final <input type="checkbox"/> Open/No LC <input type="checkbox"/> LC Assigned		CLEANUP CLOSURE ACTION: <input type="checkbox"/> NFA <input type="checkbox"/> Monitoring <input type="checkbox"/> Transferred to CS or STP	
COMMENTS:		Status of Case: <input type="checkbox"/> Open <input type="checkbox"/> Closed DATE CASE CLOSED:			
REPORT PREPARED BY:				DATE:	

DIVISION OF MINING, LAND AND WATER
WATER RESOURCES SECTION

www.dnr.state.ak.us/mlw/water/index.htm



Anchorage Office 550 West 7 th Avenue, Suite 1020 Anchorage, AK 99501-3562 (907) 269-8600 Fax: (907) 269-8947	Juneau Office PO Box 111020 400 Willoughby Avenue Juneau, AK 99811-1020 (907) 465-3400 Fax: (907) 586-2954	Fairbanks Office 3700 Airport Way Fairbanks, AK 99709-4699 (907) 451-2790 Fax: (907) 451-2703	For ADNR Use Only Date/Time Stamp
For ADNR Use Only TWUP #	For ADNR Use Only CID #	For ADNR Use Only Receipt Type WR	

APPLICATION FOR TEMPORARY USE OF WATER

INSTRUCTIONS

1. Complete one application for each project including up to five water sources (incomplete applications will not be accepted).
2. Attach legible map that includes meridian, township, range, and section lines such as a USGS topographical quadrangle or subdivision plat. Indicate water withdrawal point(s), location(s) of water use, and point(s) of return flow or discharge (if applicable).
3. Attach sketch, photos, plans of water system, or project description (if applicable).
4. Attach driller's well log for drilled wells (if available).
5. Attach copy of ADNR fish habitat permit (if applicable).
6. Attach completed Coastal Project Questionnaire (if applicable - see page 4).
7. Submit non-refundable fee (see page 4).

APPLICANT INFORMATION

NE Cape Landfill Site

Project Name

Bristol Environmental Remediation Services

Organization Name (if applicable)

Molly Welker

Individual Name (if applicable)

Susan Luetters, Bristol Env. & Engineering

Agent or Consultant Name (if applicable)

Individual Co-applicant Name (if applicable)

111 West 16th Ave. Third Floor

Mailing Address

907-561-0013

Daytime Phone Number

907-563-6713

Fax Number (if available)

Anchorage

City

AK

State

99501

Zip Code

Alternate Phone Number (optional)

mwelker@bristol-companies.com

E-Mail Address (optional)

PROPERTY DESCRIPTIONS**Location of Water Use**

Project Area (e.g. milepost range, place name, survey number)	Meridian	Township	Range	Section	Quarter Sections	
Northeast Cape, St. Lawrence Island	Kateel River	25S	54W		$\frac{1}{4}$	$\frac{1}{4}$
					$\frac{1}{4}$	$\frac{1}{4}$

Location of Water Source

Geographic Name of Water Body or Well Depth	Meridian	Township	Range	Section	Quarter Sections	
Suqitughneg River	Kateel River	25S	54W		$\frac{1}{4}$	$\frac{1}{4}$
					$\frac{1}{4}$	$\frac{1}{4}$
					$\frac{1}{4}$	$\frac{1}{4}$
					$\frac{1}{4}$	$\frac{1}{4}$
					$\frac{1}{4}$	$\frac{1}{4}$

Location of Water Return Flow or Discharge (if applicable)

Geographic Name of Water Body or Well Depth	Meridian	Township	Range	Section	Quarter Sections	
Not Applicable					$\frac{1}{4}$	$\frac{1}{4}$
					$\frac{1}{4}$	$\frac{1}{4}$

METHOD OF TAKING WATER

Pump	Pump Intake <u>4</u> Inches Pump Output <u>35</u> GPM	Hours Working <u>1.5</u> Hours/Day Length of Pipe <u>20</u> Feet (from pump to point of use)
Gravity	Pipe Diameter _____ Inches Head _____ Feet	Length of Pipe _____ Feet (take point to point of use)
Ditch	L _____ H _____ W _____ Feet	Diversion Rate _____ <input type="checkbox"/> GPM or <input type="checkbox"/> CFS
Reservoir	L _____ H _____ W _____ Feet	Water Storage _____ Acre-feet
Dam	L _____ H _____ W _____ Feet	Water Storage _____ Acre-feet

AMOUNT OF WATER					
Purpose of Water Use	Quantity of Water			Season of Use	
	Maximum Withdrawal Rate	Total Daily Amount	Total Seasonal Amount	Date Work Will Start	Date Work Will be Completed
Drum Washing& insitu chemical prep.	3000 GPD	3000 GPD	180,000 gal	July 15, 2009	Sept. 15, 2009
Project Totals		3000 GPD	180,000 gal	Total years needed: 1/6 (2 months)	

PROJECT DESCRIPTION
What alternative water sources are available to your project should a portion of your requested diversion be excluded because of water shortage or public interest concerns? There is no other viable alternative.
Are there any surface water bodies or water wells at or near your site(s) that could be affected by the proposed activity? If yes, list any ground water monitoring programs going on at or near the sites, any water shortages or water quality problems in the area, and any information about the water table, if known. No
Briefly describe the type and size of equipment used to withdraw and transport water, including the amount of water the equipment uses or holds. <small>A 2000 gallon tank has been placed into the bed of an old dump truck which will serve as the tanker truck. There is a 4-inch pump associated with this that will be used to pump water into and out of the tank. The tanker truck will fill four, 450-gallon stationary tanks that will be used for drum washing and preparation of chemicals for the insitu chem-ox remediation study. Water from the tanker truck will also be used for dust suppression.</small>
Briefly describe what changes at the project site and surrounding area will occur or are likely to occur because of construction or operation of your project (e.g. public access, streambed alteration, trenching, grading, excavation). There are no changes either anticipated or unanticipated associated with this project.
Briefly describe land use around the water take, use, and return flow points (e.g. national park, recreational site, residential). undeveloped
Will project be worked in phases? State reason for completion date. No all work started will be completed this season.
Briefly describe your entire project: See attached sheet

(Attach extra page if needed.)

11 AAC 93.220 sets out the required information on the application and authorizes the department to consider any other information needed to process an application for a temporary use of water. This information is made a part of the state public water records and becomes public information under AS 40.25.110 and 40.25.120. Public information is open to inspection by you or any member of the public. A person who is the subject of the information may challenge its accuracy or completeness under AS 44.99.310, by giving a written description of the challenged information, the changes needed to correct it, and a name and address where the person can be reached. False statements made in an application for a benefit are punishable under AS 11.56.210.

SIGNATURE

The information presented in this application is true and correct to the best of my knowledge. I understand that no water right or priority is established per 11 AAC 93.210-220, that the water used remains subject to appropriation by others, and that a temporary water use authorization may be revoked if necessary to protect the water rights of other persons or the public interest.

Molly Welker
Signature

4 June 2009
Date

Molly Welker
Name (please print)

Project Manager
Title (if applicable)

REFERENCES

Measurement Units

GPD = gallons per day

CFS = cubic feet per second

GPM = gallons per minute

AF = acre-feet

AFY = acre-feet per year (325,851 gallons/year)

AFD = acre-feet per day (325,851 gallons/day)

MGD = million gallons per day

Conversion Table

5,000 GPD=	30,000 GPD=	100,000 GPD=	500,000 GPD=	1,000,000 GPD=
0.01 CFS	0.05 CFS	0.2 CFS	0.8 CFS	1.5 CFS
3.47 GPM	20.83 GPM	69.4 GPM	347.2 GPM	694.4 GPM
5.60 AFY	33.60 AFY	112.0 AFY	560.1 AFY	1120.1 AFY
0.2 AFD	0.09 AFD	0.3 AFD	1.5 AFD	3.1 AFD
0.01 MGD	0.03 MGD	0.1 MGD	0.5 MGD	1.0 MGD

Fee required by regulation 11 AAC 05.010(a)(8)

- \$350 for all uses of water from up to five water sources
- Make checks payable to "Department of Natural Resources".

Coastal Zone

If this appropriation is within the Coastal Zone, and you are planning to use more than 1,000 GPD from a surface water source or 5,000 GPD from a subsurface water source, you need to submit a completed Coastal Project Questionnaire with this application. For more information on the Coastal Zone, contact the Office of Project Management and Permitting; Anchorage 269-7470, Juneau 465-3562, www.dnr.state.ak.us/acmp/.

NE Cape Landfill Site Project Description

- Bristol will design a cap at the Cargo Beach Road Landfill (Site 7) at NE Cape, St. Lawrence Island in the summer of 2009. The Cargo Beach Road Landfill (Site 7) is an unpermitted landfill that was used as the installation's main solid waste disposal area from 1965 until closure in 1974. The dump contains a wide variety of unknown materials. The USACE selected remedy for the landfill is to cap it, including intrusive drum removal and the disposal of associated impacted contaminated soils. The cap will need to comply with the requirements set forth in Title 18 Alaska Administrative Code, Chapter 60, and will be approved by the Alaska Department of Environmental Conservation (ADEC).
- Two field crews will be required to perform the drum removal and construct the cap at Site 7. The Drum Crew will excavate test pits and remove the drums containing liquids. Drums containing liquids will be transported to a drum-processing area, which we will establish along Cargo Beach Road immediately northeast of Site 7. At the drum processing area, the drum contents will be categorized and the wastes will be transferred to appropriate containers for storage and off-island disposal. Old drums will then be cleaned, crushed, and shipped off-island for disposal. Contaminated soil encountered/produced during drum removal activities will be placed in lined intermodal shipping containers and shipped off-island for disposal. Water for cleaning the drums will come from the Suqitughneg River. The water will be removed from the river using a tanker truck equipped with a 4-inch pump with a screened intake hose. Water from the tanker truck will be transferred over to 2, 450-gallon stationary water holding tanks. Wastewater from the drum cleaning process will be cleaned by pumping the rinse water through a granulated activated carbon (GAC) filter and disposed of on site. Spent GAC filters will be processed along with the other contaminated material removed from the site.
- The Site 7 cap will be constructed using granular borrow material obtained from the borrow site immediately south of the Main Operations Complex. Approximately 60,000 cubic yards of borrow material will be required to construct the cap. The landfill cap will be stabilized in accordance with the SWPPP and re-vegetated using an approved seed mixture.
- The In-situ Chemical Oxidation (ISCO) study will include three primary components: 1) in-field bench testing to evaluate total oxidant demand (TOD), 2) a field pilot study of ISCO, and 3) an off-site bench scale treatability study. The in-field bench testing will be limited to TOD testing in order to facilitate injection of oxidants associated with the field pilot test and collection of subsequent monitoring data within the abbreviated field season. Field pilot testing activities will include installing an injection and monitoring well network necessary to evaluate field application of ISCO at the site, collection of baseline samples for soil and groundwater, oxidant injection, and subsequent performance monitoring. This process will also require water for mixing the chemicals used in the Chemical Oxidation process. Once the chemicals are mixed with water they will be pumped into the ground to facilitate the oxidation process in a contaminated soil area.



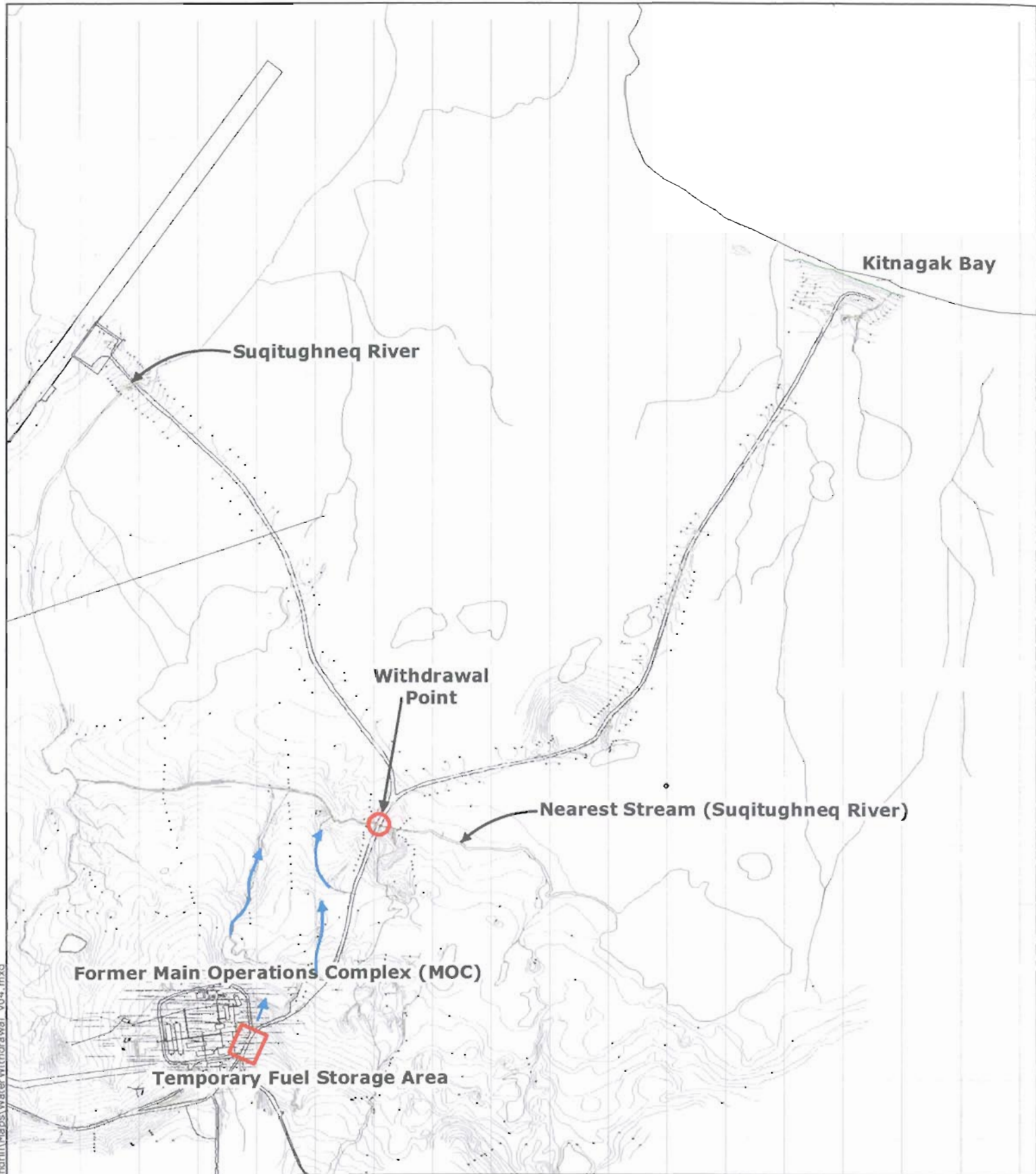
Source: USGS National Atlas Sheet Number 42-43

FIGURE 1
 NORTHEAST CAPE, ST. LAWRENCE ISLAND, ALASKA
 IN-SITE CHEMICAL OXIDATION AND INTRUSIVE
 DRUM REMOVAL/LANDFILL CAP

VICINITY MAP

Bristol
 ENVIRONMENTAL REMEDIATION
 SERVICES, LLC
 Phone (907) 563-0013 Fax (907) 563-6713
 CONTRACT NO: W911KB-09-C-0013

DATUM:	NA	DATE	04/16/09
PROJECTION:	NA	DWN.	MTG
PROJECT NO.	49028	SCALE	SHOWN
		APPRVD.	MW



File: G:\Jobs\49028_NE Cape Landfill\Maps\WaterWithdrawal v04.mxd

Figure 3
Northeast Cape, St. Lawrence Island, Alaska
**Withdrawal Point on the
Suqitughneq River**



Note: Not to Scale.
Blue lines indicate
surface water flow.

Bristol
ENVIRONMENTAL
REMEDIAL SERVICES, LLC
Phone (907)563-0013 Fax (907)563-6713
Project No. 49028

DATUM:	DATE	06-04-09	SHEET
N/A	DWN.	BI-ME	1
PROJECTION:	SCALE	NTS	d
N/A	APPR.	BEESC-SL	1

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF HABITAT

FISH HABITAT PERMIT

FH09-III-0103

Amendment #1

SARAH PALIN, GOVERNOR

1300 COLLEGE RD.
FAIRBANKS, AK 99701
PHONE: (907) 459-7289
FAX: (907) 459-7303

ISSUED: April 22, 2009

AMENDMENT #1 ISSUED: June 5, 2009

EXPIRES: December 31, 2014

Ms. Molly Welker
Bristol Environmental and Engineering Services Corporation
111 W. 16th Ave., Third Floor
Anchorage, AK 99501-5109

Dear Ms. Welker:

RE: Bridge Repair, Northeast Cape White Alice Site Removal Action (St. Lawrence Island); T25S, R54W, Suqitughneg River; SID AK0203-17AA

Pursuant to AS 16.05.841, the Alaska Department of Fish and Game (ADF&G), Division of Habitat, has reviewed Ms. Susan Luetters' email request, dated June 4, 2009, to amend Fish Habitat Permit FH09-III-0103 to authorize withdrawal of up to 3,000 gallons per day of water from the Suqitughneg River (180,000 gallons per season). Water will be withdrawn with a 4-inch diameter pump at a rate of 35 gpm. Proposed season of use is July 15, 2009 to September 15, 2009.

In accordance with AS 16.05.841, Fish Habitat Permit FH09-III-0103 is hereby amended subject to the following stipulation:

- (1) In fish bearing waters, pump intakes or stream diversions shall be designed to prevent intake, impingement, or entrapment of fish. Each water intake structure shall be centered in a screened enclosure. The effective screen opening may not exceed ¼ inch. To reduce fish impingement on the screened surfaces, water velocity at the screen/water interface may not exceed 0.5 feet per second when the pump is operating.

NOTE: Due the small water withdrawal rate, the simplest manner to achieve compliance with this stipulation is to perforate the lower third of a 5-gallon plastic bucket with a large

June 5, 2009

number of 1/4-inch holes, place some large rock in the bucket to keep it submerged, and then place the intake hose (presumably with a small rock chuck) in the bucket.

All other terms and conditions of FH09-III-0103 remain in effect.

Sincerely,

Denby S. Lloyd, Commissioner

A handwritten signature in black ink, appearing to read "Robert F. McLean". The signature is stylized with a large, looped "R" and "M".

BY: Robert F. "Mac" McLean, Regional Supervisor
Habitat Division
Alaska Department of Fish and Game

cc: Chris Milles, ADNR, Fairbanks
Ann Rappoport, USFWS, Anchorage
Jeanne Hanson, NMFS, Anchorage

RFM:mac

STATE OF ALASKA

FRANK MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF PROJECT MANAGEMENT & PERMITTING ALASKA COASTAL MANAGEMENT PROGRAM

✓ SOUTHCENTRAL REGIONAL OFFICE
550 W. 7TH AVENUE, SUITE 1660
ANCHORAGE, ALASKA 99501
PH: (907) 269-7470/FAX: (907) 269-3981

□ CENTRAL OFFICE
P.O. BOX 110030
JUNEAU, ALASKA 99811-0030
PH: (907) 465-3562/FAX: (907) 465-3075

□ PIPELINE COORDINATOR'S OFFICE
411 WEST 4TH AVENUE, SUITE 2C
ANCHORAGE, ALASKA 99501-2343
PH: (907) 257-1351/FAX (907) 272-3825

May 1, 2003

Cindy W. Ellis, P.E.
PO Box 110443
Anchorage, AK 99511

SUBJECT: REVIEW NOT REQUIRED
St. Lawrence Island Temporary Camp

Dear Ms. Ellis:

The Office of Project Management & Permitting has reviewed the Coastal Project Questionnaire and other pertinent information regarding the above referenced project.

Your proposed project also requires a plan approval from the Alaska Department of Environmental Conservation and authorizations from the Alaska Departments of Natural Resources and Fish & Game. Your project does not require additional review for consistency with the ACMP, providing you also comply with the conditions listed in the enclosed General Concurrence (GC) #8. *If you are unable to comply with these conditions, contact this office immediately.*

You are not relieved from obtaining required permits and approvals from state, federal or local agencies, before commencement of your proposed activity. Nothing in this letter excuses you from compliance with other statutes, ordinances, or regulations that may affect any proposed work.

This decision is ONLY for the project as described. If there are any changes to the proposed project, including its intended use, prior to or during its siting, construction, or operation, contact this office immediately to determine if further review and approval of the revised project is necessary.

Thank you for your cooperation with the ACMP.

Sincerely,

A handwritten signature in black ink, appearing to read "S. E. Magee", with a stylized, flowing script.

Susan E. Magee
Project Review Coordinator

Enc.: CPQ, p 1-2
GC #8

cc:	Chuck Degnan, BSCRSA	Robert McLean, DFG
	Kerry Walsh, DNR/MLW	Lee Johnson, DEC, Fbks
	Julie Raymond-Yakoubian, DNR, SHPO	COE Regulatory Branch

GENERAL CONCURRENCE GC-8

TEMPORARY USE OF WATER

PERMANENT USE OF WATER (100,000 GALLONS/DAY OR LESS)

The following activity is consistent with the Alaska Coastal Management Program per 6 AAC 50.050(c) and (e) when conducted according to the standard conditions listed below. This approval does not relieve the applicant from obtaining required permits and approvals from local, State, and federal individual agencies, including access permits (before water use begins).

For activities subject to this general concurrence, the applicant is not automatically required to complete a coastal project questionnaire (CPQ). DNR may require a CPQ for project proposals where it is uncertain whether other State or federal authorizations may be required. For example, a CPQ may not be required for road reconstruction activities since the temporary water use permit is usually the last required permit in an approved and consistent Alaska Department of Transportation and Public Facilities project. Also, a CPQ may not be required for public supply when the water system is existing and the water right application is an after-the-fact filing.

DESCRIPTION OF THE ACTIVITY

Temporary and permanent water withdrawals, including amendments to existing water withdrawal authorizations, from surface and subsurface water where all water withdrawals cumulatively do not reduce the instream flow below the level necessary to support anadromous and resident fish. (Under AS 46.15, DNR is still required to give notice to DFG and DEC of the proposed withdrawal to determine the necessary instream flow levels.)

Temporary water use may be for an undetermined quantity of water for up to five years. Permanent water use authorizations subject to this general concurrence are limited to 100,000 gallons per day. Applications for permanent water uses greater than 100,000 gallons are subject to individual project review. Amendments to existing authorizations must remain within the scope of this general concurrence.

Routine uses include:

- public, commercial, and domestic water supplies;
- industrial uses including seafood processing, logging activities, road construction, oil and gas exploration outside environmentally sensitive areas, sand and gravel washing, industrial air cooling, and chemical refining;
- public and commercial uses including recreation fields, golf courses, cemeteries, snow making, trailer and recreational vehicle parks, campgrounds, public facilities, ice hockey rinks, commercial malls, car washes, laundries, and washaterias;
- agricultural uses including crop irrigation, livestock watering, nurseries and greenhouses;
- hydroelectric power generation;
- fish hatcheries.

- hydrostatic testing; and
- bottled water.

Authority: AS 46.15
 AS 16.05.870
 AS 16.20
 5 AAC 95
 11 AAC 93

Permits: Temporary Water Use Permit (DNR)
 Permit to Appropriate Water (DNR)
 Fish Habitat Permit (DFG)
 Special Area Permit (DFG)

Region: Statewide, except AMSAs or Important Use Areas identified in the Bering Straits CRSA plan.

PROCEDURE

This general concurrence does not apply to an operation that must undergo an individual project review because of other State or federal permit requirements. Water withdrawal authorizations connected to commercial mining are reviewed as part of the Alaska Placer Mining Application.

STANDARD CONDITIONS

Conditions pertaining to Surface and Subsurface Withdrawals

1. Water discharged (including runoff) shall not be discharged at a rate resulting in sedimentation, erosion, or other disruptions to the bed or banks of the above waters, causing water quality degradation.
2. Water trucks will not be fueled or serviced within 100 feet of a water body. Gas fueled pumps will not be fueled or serviced within 100 feet of a water body **unless** the pumps are situated within a catch basin designed to contain any spills. Equipment shall not be stored or serviced within 100 feet of any of the subject waterbodies.

Conditions pertaining only to Surface Withdrawals

3. Any water intake structure in fish bearing waters, including a screened enclosure, well-point, sump, or infiltration gallery, must be designed, operated, and maintained to prevent fish entrapment, entrainment, or injury, unless specifically exempted by DFG.
4. Each water intake directly accessible by fish shall be designed to prevent intake,

impingement, or entrapment of fish. Preferred methods of water intake include well points, sumps, or infiltration galleries. As an alternative, the water intake structure must be enclosed and centered within a screened box with a maximum screen-mesh size of 0.04-inches. To reduce fish impingement at the screen/water interface, water velocity may not exceed 0.5 feet per second when the pump is operating (AS 16.05.870). Slower water velocities may be stipulated by DFG if more sensitive anadromous fish life stages (e.g. juvenile whitefish) are present at the water intake source during the period of pumping. DFG can properly determine the size of the screened box from the pump intake size and capacity to be used. Screens aligned parallel to the stream current will require the least maintenance and will be least likely to impinge fish.

5. Waterbodies shall not be altered to facilitate water appropriation or disturbed in any way. If banks, shores, or beds, are inadvertently disturbed, excavated, compacted, or filled, by activities attributable to this project, they shall be immediately stabilized to prevent erosion and the resultant sedimentation of waterbody which could occur both during and after operations. Any disturbed areas shall be recontoured and revegetated.
6. Adequate flow must remain to support indigenous aquatic life and the watercourse must not be blocked to the passage of fishes. The water appropriation shall not adversely affect any anadromous fish stream.
7. Prior to withdrawing water from fish bearing streams, the DFG and DNR may require current and expected flow data for the period of proposed water use. DNR may set a maximum rate of diversion and/or a minimum instream flow.
8. Inwater activity will be limited to placement and removal of the intake structure only. No other in-water activities will occur.
9. There shall be no wheeled, tracked, excavating, or other machinery or equipment (with the exception of the non-motorized screened intake box) operated below the ordinary high water line.
10. Permittee must employ pumping operations in such a way as to prevent any petroleum products or hazardous substances contaminating surface or ground water. In case of accidental spills, absorbent pads will be readily available at the water collection point. All spills must be reported to DEC (800) 478-9300 and to DNR at (907) 451-2678.
11. The suction hose at the water extraction site must be clean and free from contamination at all times to prevent introduction of contamination to the waterbodies, and should be in water of a sufficient depth so that the stream sediments are not disturbed during the extraction process.
12. During the constructional or operational phases of this project, any discharge to state waters made subsequent to this appropriation shall comply with Alaska Water Quality Standards.

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

Division of Mining, Land and Water

Northern Regional Land Section

SARAH PALIN, GOVERNOR

NORTHERN REGION

3700 AIRPORT WAY
FAIRBANKS, ALASKA 99709-4699

PHONE: (907) 451-3014

FAX: (907) 451-2751

dianna.leinberger@alaska.gov

May 18, 2009

Christopher Floyd
US Army Corps of Engineers, Alaska District
Environmental Resources Section
EN-CW-ER
PO BOX 6898
Elmendorf AFB, AK 99506-06898

RE: Letter of Entry for state tidelands within Kitnagak Bay, Saint Lawrence Island

For the purpose of accessing the Northeast Cape for a Formerly Used Defense Site Cleanup and a Native American Lands Environmental Mitigation Program Project

Dear Mr. Floyd,

The Department of Natural Resources, Division of Mining, Land and Water hereby grants the US Army Corps of Engineers (USACE) a "Letter of Entry" authorization to enter upon state tidelands for the express purpose of conducting barge landings for the continued assessment and cleanup of the Northeast Cape. The barge landings will occur at Kitnagak Bay located within Kateel River Meridian, Township 25 South, Range 54 West, sections 10, 11, 12, 14, 15.

The Northern Region Land Office is hereby providing this letter allowing for entry for the purpose of conducting the above described project. The Letter of Entry is subject to the following terms and conditions:

- The Letter of Entry does not convey any interest in state land and as such is revocable immediately, with or without cause. The USACE, its contractors and sub-contractors are authorized use of the barge landing within state tidelands, but are not authorized to preclude or restrict public access on and through the tideland area.
- All operations must be conducted in a manner that will assure minimum conflict with other users of the area. This Letter of Entry is subject to the principles of the public trust doctrine specifically the right of the public to use navigable waterways and the land beneath them for navigation, commerce, fishing, hunting, protection of areas for ecological study, and other purposes, must be protected.
- The Regional Manager or his designee reserves the right to grant other interests to the subject areas consistent with the public trust doctrine. The State of Alaska makes no representations or warranties whatsoever, either expressed or implied, as to the existence, number, or nature of such valid existing rights.

"Develop, Conserve, and Enhance Natural Resources for Present and Future Alaskans."

- All activities at the site shall be conducted in a manner that will minimize the disturbance to the natural character of the beach.
- All waste generated by the USACE, its contractors and sub-contractors under this Letter of Entry will be removed or otherwise disposed of as required by state and federal law.
- Abandonment of equipment is prohibited on state lands.
- Refueling of equipment and the storage of petroleum products on state owned tidelands is prohibited.
- The USACE, its contractors and sub-contractors shall immediately notify the Alaska Department of Environmental Conservation (ADEC) by telephone, and immediately afterwards send ADEC a written notice by facsimile, hand delivery, or first class mail, informing ADEC of any unauthorized discharges of oil to water, any discharge of hazardous substances other than oil and any discharge or cumulative discharge of oil greater than 55 gallons solely to land and outside an impermeable containment area. If a discharge, including a cumulative discharge, of oil is greater than 10 gallons but less than 55 gallons, or a discharge of oil greater than 55 gallons is made to an impermeable secondary containment area, the USACE, its contractors and sub-contractors shall report the discharge within 48 hours, and immediately afterwards send ADEC a written notice by facsimile, hand delivery, or first class mail. Any discharge of oil, including a cumulative discharge, solely to land greater than one gallon up to 10 gallons must be reported in writing on a monthly basis. The posting of information requirements of 18 AAC75.305 shall be met. Scope and Duration of Initial Response Actions (18 AAC 75.310) and reporting requirements of 18 AAC 75, Article 3 also apply.

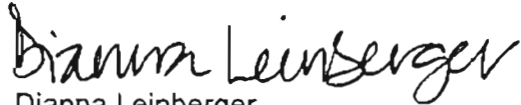
The USACE, its contractors and subcontractors shall supply ADEC with all follow-up incident reports. Notification of a discharge must be made to the nearest ADEC Area Response Team during working hours: Anchorage (907) 269-7500, fax (907) 269-7648; Fairbanks (907) 451-2121, fax (907) 451-2362; Juneau (907) 465-5340, fax (907) 465-2237. The ADEC oil spill report number outside normal business hours is (800) 478-9300.

- The USACE may not assign or transfer, in part or whole, the Letter of Entry to another party.
- The USACE must obtain written approval from the Regional Manager or his designee prior to making any changes or improvements to the project site or their operations as authorized by this Letter of Entry.
- This Letter of Entry does not relieve the USACE from securing other necessary state, federal and local permits. This Letter of Entry does not provide authorization for travel on private property.
- The USACE, its contractors and sub-contractors shall observe all federal, state and local laws and regulations applicable to the authorized areas, including regulations for the protection of fish and wildlife, and shall keep all premises in a neat, orderly, and sanitary condition.

- The Alaska Historic Preservation Act requires that if cultural or paleontological resources are discovered on state lands as a result of this activity, work that would disturb such resources must be stopped and the State Historic Preservation Office be contacted immediately at (907) 269-8720.
- This Letter of Entry is issued for a specific use. Use of the barge landing for purposes other than those specified constitutes a breach of this authorization and may result in revocation. This Letter of Entry is revocable with any applicable laws, statutes and regulations (state and federal).

Any questions regarding any aspect of this Letter of Entry shall be directed to Dianna Leinberger, Department of Natural Resources, Division of Mining, Land and Water, Northern Region Land Office, 3700 Airport Way, Fairbanks, Alaska 99709, (907) 451-3014, dianna.leinberger@alaska.gov.

Sincerely,

A handwritten signature in black ink that reads "Dianna Leinberger". The signature is written in a cursive, flowing style.

Dianna Leinberger
Natural Resource Specialist

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF HABITAT

FISH HABITAT PERMIT

FH09-III-0103

Amendment #1

SARAH PALIN, GOVERNOR

1300 COLLEGE RD.
FAIRBANKS, AK 99701
PHONE: (907) 459-7289
FAX: (907) 459-7303

ISSUED: April 22, 2009

AMENDMENT #1 ISSUED: June 5, 2009

EXPIRES: December 31, 2014

Ms. Molly Welker
Bristol Environmental and Engineering Services Corporation
111 W. 16th Ave., Third Floor
Anchorage, AK 99501-5109

Dear Ms. Welker:

RE: Bridge Repair, Northeast Cape White Alice Site Removal Action (St. Lawrence Island); T25S, R54W, Suqitughneg River; SID AK0203-17AA

Pursuant to AS 16.05.841, the Alaska Department of Fish and Game (ADF&G), Division of Habitat, has reviewed Ms. Susan Luetters' email request, dated June 4, 2009, to amend Fish Habitat Permit FH09-III-0103 to authorize withdrawal of up to 3,000 gallons per day of water from the Suqitughneg River (180,000 gallons per season). Water will be withdrawn with a 4-inch diameter pump at a rate of 35 gpm. Proposed season of use is July 15, 2009 to September 15, 2009.

In accordance with AS 16.05.841, Fish Habitat Permit FH09-III-0103 is hereby amended subject to the following stipulation:

- (1) In fish bearing waters, pump intakes or stream diversions shall be designed to prevent intake, impingement, or entrapment of fish. Each water intake structure shall be centered in a screened enclosure. The effective screen opening may not exceed ¼ inch. To reduce fish impingement on the screened surfaces, water velocity at the screen/water interface may not exceed 0.5 feet per second when the pump is operating.

NOTE: Due the small water withdrawal rate, the simplest manner to achieve compliance with this stipulation is to perforate the lower third of a 5-gallon plastic bucket with a large

June 5, 2009

number of 1/4-inch holes, place some large rock in the bucket to keep it submerged, and then place the intake hose (presumably with a small rock chuck) in the bucket.

All other terms and conditions of FH09-III-0103 remain in effect.

Sincerely,

Denby S. Lloyd, Commissioner

A handwritten signature in black ink, appearing to read "Robert F. McLean". The signature is stylized with a large, looped "R" and "M".

BY: Robert F. "Mac" McLean, Regional Supervisor
Habitat Division
Alaska Department of Fish and Game

cc: Chris Milles, ADNR, Fairbanks
Ann Rappoport, USFWS, Anchorage
Jeanne Hanson, NMFS, Anchorage

RFM:mac

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF HABITAT

FISH HABITAT PERMIT FH09-III-0102

SARAH PALIN, GOVERNOR

1300 COLLEGE RD.
FAIRBANKS, AK 99701
PHONE: (907) 459-7289
FAX: (907) 459-7303

ISSUED: April 22, 2009
EXPIRES: December 31, 2014

Ms. Molly Welker
Bristol Environmental and Engineering Services Corporation
111 W. 16th Ave., Third Floor
Anchorage, AK 99501-5109

Dear Ms. Welker:

RE: Equipment Stream Crossing, Northeast Cape White Alice Site Removal Action
(St. Lawrence Island), T25S, R54W, Quangeghsaq River; SID AK 0203-17AA

Pursuant to AS 16.05.841, the Alaska Department of Fish and Game (ADF&G), Division of Habitat, has reviewed your proposal to make multiple crossings at multiple sites (four) across the Quangeghsaq River with amphibious all-terrain vehicles. Timbers or poles may need to be placed in and adjacent to the stream to create better crossing sites that prevent ATVs from getting stuck and reduce damage to vegetation. Access is needed to cut down and remove hundreds of poles from abandoned utility lines. ADF&G originally received a description of the proposed project on March 19, 2002 and a more detailed description via email on April 3, 2002. That activity was permitted under Fish Habitat Permit FG02-III-0073 which expired December 31, 2005. Additional access may be needed to conduct maintenance activities.

The Quangeghsaq River supports anadromous Dolly Varden (and possibly whitefish) and resident fish (e.g., Alaska blackfish) in the area of your proposed activity. Based upon our review of your plans, your proposed project may obstruct the efficient passage and movement of fish.

In accordance with AS 16.05.841, project approval is hereby given subject to the following stipulations:

- (1) Equipment crossings shall be made from bank to bank in a direction substantially perpendicular to the direction of stream flow.

Equipment crossings shall be made only at locations with gradually sloping banks. There shall be no crossings at locations with sheer or cut banks.

Banks shall not be altered or disturbed in any way to facilitate crossings. If stream banks are inadvertently disturbed, they shall be immediately stabilized to prevent erosion.

- (2) If timber/poles are placed in and adjacent to the stream to create a crossing site, they must be placed in such a way that free passage of fish is assured. In addition, all material shall be completely removed from the streambed and banks at the end of each work season. If needed, the streambed shall be recontoured to assure that "trenches" are not left that will trap fish at low-water levels.
- (3) Vehicle crossings shall be limited to only what is necessary to accomplish work.
- (4) No damming or diversions are permitted.

The permittee is responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved plan. For any activity that significantly deviates from the approved plan, the permittee shall notify the ADF&G and obtain written approval in the form of a permit amendment before beginning the activity. Any action taken by the permittee, or an agent of the permittee, that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the ADF&G. Therefore, it is recommended that the ADF&G be consulted immediately when a deviation from the approved plan is being considered.

This letter constitutes a permit issued under the authority of AS 16.05.841. This permit must be retained on site during construction. Please be advised that this approval does not relieve you of the responsibility of securing other permits, state, federal or local.

This permit provides reasonable notice from the commissioner that failure to meet its terms and conditions constitutes violation of AS 16.05.861; no separate notice under AS 16.05.861 is required before citation for violation of AS 16.05.841 can occur.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. The department reserves the right to require mitigation measures to correct disruption to fish and game created by the project and which were a direct result of the failure to comply with this permit or any applicable law.

The recipient of this permit (permittee) shall indemnify, save harmless, and defend the department, its agents and its employees from any and all claims, actions or liabilities for

injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or the permittee's performance under this permit. However, this provision has no effect, if, and only if, the sole proximate cause of the injury is the department's negligence.

Sincerely,

Denby S. Lloyd, Commissioner

A handwritten signature in black ink, appearing to read "Robert F. McLean". The signature is stylized with a large, cursive "R" and "M".

BY: Robert F. "Mac" McLean, Regional Supervisor
Habitat Division

cc: Chris Milles, ADNR, Fairbanks
Ann Rappoport, USFWS, Anchorage
Jeanne Hanson, NMFS, Anchorage

RFM:mac



**Alaska Department of Environmental Conservation
Wastewater Discharge Authorization Programs**

STATE OF ALASKA WASTEWATER GENERAL PERMIT

2009DB0004

Contained Water GP

This permit is issued under provisions of Alaska Statutes 46.03, the Alaska Administrative Code as amended, and other applicable State laws and regulations. This permit may be terminated, modified, or renewed under provisions of Alaska Statute and the Alaska Administrative Code. This permit supersedes State wastewater general permit 2003DB0089.

This wastewater discharge general permit is available for use by persons responsible for the discharge of contained water that meets the eligibility criteria in this permit. Contained water means water isolated from the environment in a manmade container or a lined impoundment structure.

The owners and operators of facilities covered under this general permit are authorized to discharge to the lands and waters of the State of Alaska in accordance with discharge point(s) effluent limitations, monitoring requirements, and other conditions set forth herein.

This general permit shall become effective **March 19, 2009**

This general permit and the authorization to discharge shall expire at midnight, **March 18, 2014**.

SIGNATURE ON FILE

3/19/2009

Signature

Date

Sharmon M Stambaugh

Wastewater Discharge Program Manager

Printed Name

Title

PERMIT NO. 2009DB0004

Wastewater Discharges Eligible For Coverage Under this Permit. This general permit applies to:

- contained water including, but not limited to: hydrostatic test water or chlorinated water from tanks, pipelines, swimming pools, and other containers that hold wastewater that meets state water quality standards in 18 AAC 70 and the effluent limitations in Section 1.2.2 of this permit;

Wastewater Discharges Not Covered by this Permit. This general permit does not apply to:

- Contaminated groundwater where halogenated hydrocarbons are the primary contaminant of concern;
- A discharge to waters listed by the state as impaired, where the impairment is wholly or partially caused by a pollutant contained within the proposed discharge;
- A discharge from a sewage lagoon or other treatment works subject to a different State wastewater discharge permit;
- A discharge permitted under storm water general permits;
- A discharge to groundwater under a response action, a cleanup, or a corrective action approved under 18 AAC 70.005; or
- A wastewater discharge originating from water accumulations within secondary containment areas as regulated under 18 AAC 75.075 (d), AND is intended to be discharged to a surface water.

Notice of Intent (NOI) Requirements

- An NOI under Section 1.1.1 and prior written authorization from the Department are required for one-time discharge (i.e., no more than one discharge per year) of a volume of water greater than or equal to 10,000 gallons through discharge to the land surface or to a surface water body; or
- An NOI is not required for a one-time discharge of a volume of water less than 10,000 gallons, however, all terms and conditions of this permit, including the effluent limitations in Section 1.2.2, still apply.

General Provisions

A wastewater discharge authorized under this general permit is subject to the terms and conditions specified in Sections 1 and 2 of this permit. All discharges made under the authority of this permit, regardless of size, are subject to the terms and conditions contained herein. Approval to operate under this permit shall be valid for not longer than 12 months. This permit does not relieve the permittee of the responsibility of obtaining other required permits if any.

The Department will require a person to obtain an individual permit when the wastewater discharge does not meet the eligibility criteria of this general permit, contributes to pollution, has the potential to cause or causes an adverse impact on public health or water quality, or a change occurs in the availability of technology or practices for the control or abatement of pollutants contained in the discharge.

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1 OPERATIONAL REQUIREMENTS

1.1 NOTICE OF INTENT

- 1.1.1 An applicant wishing to conduct a discharge activity under this permit and whose total discharge volume is equal to or greater than 10,000 gallons, must submit a Notice of Intent to the Alaska Department of Environmental Conservation. The Notice of Intent form can be found at <http://www.dec.state.ak.us/water/wwdp/index.htm> or by sending a request to DEC.Water.WQPermit@alaska.gov. The Notice of Intent must be submitted to ADEC at least thirty (30) days prior to the start of the discharge activity at:

Alaska Department of Environmental Conservation
Division of Water
Wastewater Discharge Authorization Programs
555 Cordova Street
Anchorage, Alaska 99501
Phone (907)-269-6285
Fax (907)-269-3487
Email DEC.Water.WQPermit@alaska.gov
<http://www.dec.state.ak.us/water/wwdp/index.htm>

- 1.1.2 A Notice of Intent is **not** required for discharges of less than a total of 10,000 gallons. However the water quality standards in 18 AAC 70 and the terms and conditions in this permit still apply to all activities conducted under this permit even if submittal of a Notice of Intent is not required.
- 1.1.3 The Notice of Intent must be accompanied by the appropriate fee as found in 18 AAC 72.956 or any such regulations as amended. The permit fees can be found the Department's website at: www.state.ak.us/dec/water/wwdp/online_permitting/fees.htm
- 1.1.4 An applicant must have written authorization from the Department before conducting a discharge activity under this permit which results in a total discharge of 10,000 gallons or more of contained water. The Department will, in its discretion, deny use of this permit, or attach or waive conditions appropriate for a specific discharge activity in the authorization.
- 1.1.5 The written authorization is effective for the period beginning on the effective date of the authorization and lasting through its expiration date. If this permit is modified or renewed during the term of the authorization, the new permit requirements apply.

1.2 TERMS AND CONDITIONS

1.2.1 The permittee is authorized to discharge wastewater as specified in this subsection.

1.2.2 Wastewater discharged shall not exceed the following limitations:

Effluent Characteristic	Maximum Value
Turbidity	5 NTU above background ¹
Settleable Solids	0.2 mL/L (milliliters per liter)
Total Chlorine	11 µg/L fresh water or 7.5 µg/L saltwater (micrograms per liter)
pH	Between 6.5 and 8.5 pH units or within 0.2 units (marine water), or 0.5 units (fresh water) of the receiving water pH at all times.
Total Aqueous Hydrocarbons (TAqH)	15 µg/L (micrograms per liter)
Total Aromatic Hydrocarbons (TAH)	10 µg/L (micrograms per liter)

1.2.3 The discharge shall not cause thermal or physical erosion.

1.2.4 The discharge shall not cause re-suspension of sediments upon discharge to receiving waters.

1.2.5 The discharge shall be free of (a) any additives such as antifreeze solutions, methanol, solvents, and corrosion inhibitors; (b) solid wastes and garbage; (c) toxic substances; (d) grease or oils which exceed the effluent limitations in Section 1.2.2 or produce sheen; (e) foam in other than trace amounts; or (f) other contaminants.

1.2.6 The discharge shall not cause a violation of the Alaska Water Quality Standards (18 AAC 70).

1.2.7 The discharge shall not cause adverse effects to aquatic or plant life, their reproduction or habitats.

1.2.8 The Department will, in its discretion, attach terms and conditions to the written authorization required by Section 1.1.4, as appropriate.

1 Applies to discharges to the waters of the state only. Not in effect for disposals which freeze upon discharge. Shall not have more than 10% increase in turbidity when the natural condition is more than 50 NTU, not to exceed a maximum increase of 15 NTU. Shall not exceed 5 NTU over natural conditions for all lake waters.

PERMIT NO. 2009DB0004

- 1.2.9 This permit does not constitute a grant of water rights.
- 1.2.10 An applicant must contact the Department of Fish & Game, Office of Habitat Management and Permitting, <http://www.habitat.adfg.alaska.gov/> , two weeks prior to any discharge, if the discharged water will enter fish-bearing waters.
- 1.2.11 If a toxic pollutant (including oil, grease, or solvents) concentration standard is established in accordance with 18 AAC 70 for a pollutant present in this discharge, and such standard is more stringent than the limitation in this permit, this permit is considered to be modified in accordance with the toxic pollutant concentration standard.

1.3 MONITORING

- 1.3.1 Test procedures used for sample analysis shall conform to methods cited in 18 AAC 70.020(c), or as such regulations may be amended. The permittee may substitute alternative methods of monitoring or analysis upon receipt of prior written approval from the Department.
- 1.3.2 The permittee shall use current calibrated equipment when taking field measurements, and shall use bottles and sampling procedures provided by the laboratory when taking samples for laboratory analysis.
- 1.3.3 Samples and measurements taken shall be representative of the volume and nature of the monitored activity.
- 1.3.4 For discharges equal to or greater than 10,000 gallons, the permittee shall monitor the contained water, background natural condition, or the wastewater stream of the discharge in the following manner and frequency. Monitoring results from all before discharge samples must be received and reviewed by the permittee before discharging in order to insure compliance with the conditions in Section 1.2.2.

For discharges less than 10,000 gallons, the permittee is required to conduct the Field monitoring to insure compliance with the conditions in Section 1.2.2, but is not required to conduct the TAqH or TAH Lab monitoring unless there is sheen. In accordance with this section, the following requirements apply:

PERMIT NO. 2009DB0004

Effluent Characteristic	Sample Location	Minimum Frequency	Sample Type	Sample method
Total Flow	Effluent	Daily	Estimate or Measured	Field
Turbidity (NTU)	Effluent & Background	Before discharge and 1 per week	Grab	Field
Settleable Solids	Effluent	Before discharge and 1 per week	Grab	Field (see note 11 to 18 AAC 70.020(b))
Total Chlorine	Containment	Before discharge	Grab	Field
pH	Containment	Before discharge	Grab	Field
Total Aqueous Hydrocarbons (TAqH)	Containment	Before discharge	Grab	Lab method 602 or 624 (see note 7 to 18 AAC 70.020(b))
Total Aromatic Hydrocarbons (TAH)	Containment	Before discharge	Grab	Lab method 610 or 625 (see note 7 to 18 AAC 70.020(b))

- 1.3.5 If the permittee monitors any contained water, discharge, or surface water characteristic identified in this permit more frequently than required, the results of such monitoring shall be reported to the Department in the monitoring report required under Section 1.4 of this permit.
- 1.3.6 Additional monitoring parameters and increased monitoring frequency may be required on a case-by-case basis.
- 1.3.6 Specific requirements for monitoring may be waived by the Department in the authorization to discharge under this permit if the information submitted in the Notice of Intent demonstrates no reasonable potential to exceed the effluent limitations in Section 1.2.2 of this permit.

1.4 REPORTING

For a discharge equal to or greater than 10,000 gallons, monitoring results shall be recorded on a Discharge Monitoring Report (DMR) and submitted no later than the 14th day of the month following the month that each sampling occurs. Reporting shall begin when the discharge starts. Reporting shall be done on the electronic form included with the written authorization or on the form located at the website address provided below. The reports shall be emailed AND signed copies of the monitoring results and all other reports required herein shall be submitted to the Department office at the following address:

PERMIT NO. 2009DB0004

Alaska Department of Environmental Conservation
Division of Water
Compliance Section
555 Cordova Street
Anchorage, Alaska 99501
Toll free 1-877-569-4114 (outside Anchorage service area)
In Anchorage service area 907-269-4114
Fax (907) 269-4604
Email: dec-wqreporting@alaska.gov
<http://www.dec.state.ak.us/water/Compliance/index.htm>

A false statement knowingly made by the permittee, the operator, or other employee, including a contractor, on any such report may result in the imposition of criminal penalties as provided for under AS 46.03.790.

1.5 RECORDS RETENTION

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained in Alaska for three years for observation by the Department. Upon request from the Department, the permittee shall submit certified copies of such records.

1.6 CHANGE IN DISCHARGE

A discharge authorized herein shall comply with the terms and conditions of this permit. The discharge of any pollutant or toxic material more frequently than specified, or at a concentration or limit not authorized, shall constitute noncompliance with the permit. Any anticipated construction changes, flow increases, or process modifications which will result in new, different, or increased discharge of pollutants and will cause a violation of this permit's limitations are not allowed under this permit and must be reported by submission of an individual waste discharge permit application or a revision of the Notice of Intent. Physical changes to the treatment process may be subject to plan review.

1.7 ACCIDENTAL DISCHARGES

The permittee shall provide protection from accidental discharges not in compliance with the terms and conditions of this permit. Facilities to prevent such discharges shall be maintained in good working condition at all times.

1.8 NONCOMPLIANCE NOTIFICATION

- 1.8.1 If, for any reason, the permittee does not comply with or will be unable to comply with any term or condition specified in this permit, the permittee shall report the noncompliance to the Department within 72 hours of becoming aware of such noncompliance. This report shall be by telephone, fax, email, or in the absence of these avenues, by mail to the address information provided in Section 1.4.
- 1.8.2 A written follow-up report shall be sent to the Department within seven (7) days of the noncompliance event. The written report shall contain, but is not limited to:
 - 1.8.2.1 Times and dates on which the event occurred, and if not corrected, the anticipated time the noncompliance is expected to continue;
 - 1.8.2.2 A detailed description of the event, including quantity and type of materials causing the noncompliance;
 - 1.8.2.3 Details of any actual or potential impact on the receiving environment or public health;
 - 1.8.2.4 Details of actions taken or to be taken to correct the cause(s) of the event and to remedy any damage that result from the event.
 - 1.8.2.5 A permittee may use the ADEC non-compliance notification form to provide the required information of this section. Go to the website address provided in Section 1.4 or send a request to the email address provided in Section 1.4.

1.9 RESTRICTION OF PERMIT USE

The department will require a person with a general permit authorization to obtain an individual permit if the department determines that the discharge does not meet the requirements of this permit, the discharge contributes to pollution, there is a change in technology, or the environment or public health are not protected.

1.10 TRANSFER OF OWNERSHIP

In the event of any change in control or ownership of the permitted facility, the permittee shall notify the succeeding owner or controller of the existence of this permit and the authorization by letter or by using the Change in Ownership Form. A copy of the letter or form shall be forwarded to the Department at the address listed in Section 1.1. The original permittee remains responsible for permit compliance unless and until the succeeding owner or controller agrees in writing to assume such responsibility and the Department approves assignment of the permit. The Department will not unreasonably withhold such approval.

2 GENERAL REQUIREMENTS

2.1 ACCESS AND INSPECTION

The permittee shall allow the department access to the permitted facilities at reasonable times to conduct scheduled or unscheduled inspections or tests to determine compliance with this permit, the terms of the authorization to operate under this permit, State laws, and regulations.

2.2 INFORMATION ACCESS

Except where protected from disclosure by applicable state or federal law, all records and reports submitted in accordance with the terms and conditions of this permit shall be available for public inspection at the appropriate State of Alaska Department of Environmental Conservation office.

2.3 CIVIL AND CRIMINAL LIABILITY

Nothing in this permit shall relieve the permittee from any potential civil or criminal liability for noncompliance with this permit, their authorization to operate, or applicable laws and regulations.

2.4 AVAILABILITY

The permittee shall post or maintain a copy of this permit and their authorization available to the public at the discharge facility.

2.5 ADVERSE IMPACT

The permittee shall take all necessary means to minimize any adverse impacts to the receiving waters or lands resulting from noncompliance with any limitation or condition specified in this permit, including additional monitoring needed to determine the nature and impact of the non-complying activity. The permittee shall clean up and restore all areas adversely impacted by the non-complying activity.

2.6 CULTURAL OR PALEONTOLOGICAL RESOURCES

If cultural or paleontological resources are discovered as a result of this discharge activity, work which would disturb such resources is to be stopped, and the State Historic Preservation Office, Division of Parks and Outdoor Recreation, Department of Natural Resources (907) 762-2622, is to be notified immediately.

2.7 OTHER LEGAL OBLIGATIONS

This permit does not relieve the permittee from the duty to obtain any other necessary permits or approvals from the Department or other local, state, or federal agencies, and to comply with the requirements contained in any such permits. All activity conducted and all plan approvals implemented by the permittee pursuant to

the terms of this permit shall comply with all applicable local, state, and federal laws and regulations.

2.8 POLLUTION PREVENTION

In order to prevent and minimize present and future pollution, when making management decisions that affect waste generation, the permittee shall consider the following order of priority options as outlined in AS 46.06.021:

- Wastewater source reduction;
- Wastewater recycling;
- Wastewater treatment; and
- Wastewater discharge to the environment.



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
REGULATORY DIVISION
P.O. BOX 6998
ELMENDORF AFB, ALASKA 99506-0898

JUN 30 2009

Regulatory Division
POA-2009-379

Mr. Carey Cossaboom, CEPOA-PM-C
Alaska District Corps of Engineers
P.O. Box 6898
Elmendorf AFB, Alaska 99506-0898

Dear Mr. Cossaboom:

This is in response to your request for a Department of the Army (DA) Nationwide Permit verification for your remediation project at a former radar communications site near Kitnagak Bay on St. Lawrence Island, Alaska. The project is located within Sections 15, 16, 21 and 22, T. 25 S., R. 54 W. Kateel River Meridian; at Latitude 63.322° N., Longitude -168.945° W.; approximately 8 miles west of Northeast Cape.

DA permit authorization is necessary because your project involves placing fill in wetlands and also work below the mean high water mark in waters of the U.S. under our jurisdiction.

Based upon the information and plans you provided, we hereby verify that the work described above, which would be performed in accordance with the enclosed plan (sheets 1-6), dated June 2009, is authorized by Nationwide Permit (NWP) No. 38, Cleanup of Hazardous and Toxic Waste. NWP No. 38 and its associated Regional and General Conditions can be accessed at our website at www.poa.usace.army.mil/reg. You must comply with all terms and conditions associated with NWP No. 38.

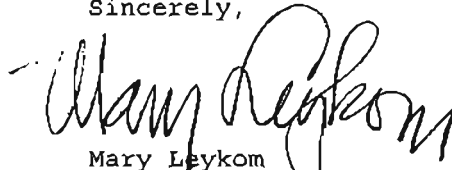
Further, please note General Condition 26 requires that you submit a signed certification to us once any work and required mitigation are completed. Enclosed is the form for you to complete and return to us.

This verification will be valid for two years from the date of this letter, unless the NWP authorization is modified, suspended, or revoked.

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

You may contact me via email at mary.f.leykom@usace.army.mil, by mail at the address above, by phone at (907) 753-2711, if you have questions or to request paper copies of the jurisdictional determination, regional and/or general conditions. For additional information about our Regulatory Program, visit our web site at www.poa.usace.army.mil/reg.

Sincerely,



Mary Leykom
Project Manager

Enclosures

Project Summary
North East Cape, St Lawrence Island
2009 Removal Action/Remedial Investigation

The U.S. Army Corps of Engineers (Corps) is planning to conduct remedial actions at the Northeast Cape former military facilities in the summer (June through August) of 2009.

The former radar and communications facilities are located near Kitnagak Bay on St. Lawrence Island, approximately 8 miles east of Northeast Cape (figure 1). The legal description of the project area is Township 25S, Range 54W, Sections 15, 16, 21, and 22 of the Kateel River Meridian.

The planned project is a continuation of previous investigations and cleanup efforts at this Formerly Used Defense Site (FUDS), reviewed by the ACMP most recently under State ID No. AK 0203-17AA.

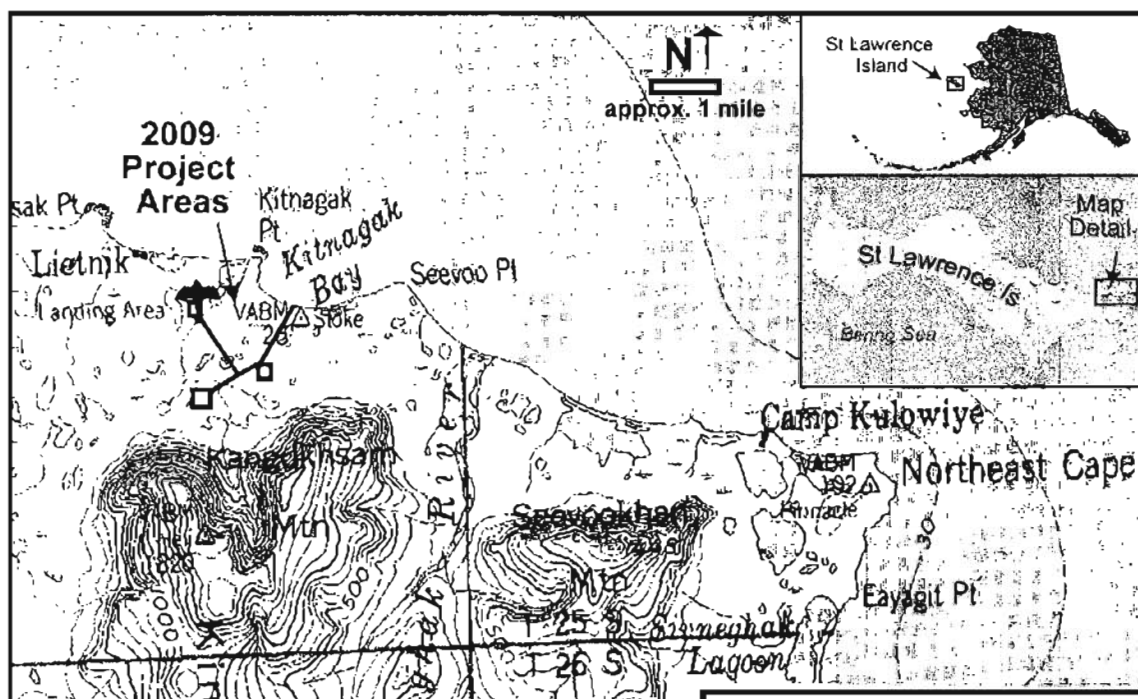


Figure 1. Project Location and Vicinity.

POA-2009-379 U.S. Army Corps of Engineers
Defense Environmental Restoration Program
 Northeast Cape, St. Lawrence Island, Alaska
 Location map and project description page 1
 Sheet 1 of 6 June 2009

The project's major activities would include:

- A barge landing on the beach at Kitnagak Bay (at roughly 63.33°N, 168.94°W) to unload heavy equipment and supplies;
- Establishment of a work camp on existing pads near the airfield;
- Repair of 2 stream crossings (crossings #5 and #7), probably through replacement of existing culverts, and addition of small amounts of fill;
- Removal of containerized waste from and recapping of the Cargo Beach Road Landfill;
- Pilot study of in situ chemical oxidation (ISCO) at a small area of fuel-stained soils in the former Main Operations Complex.

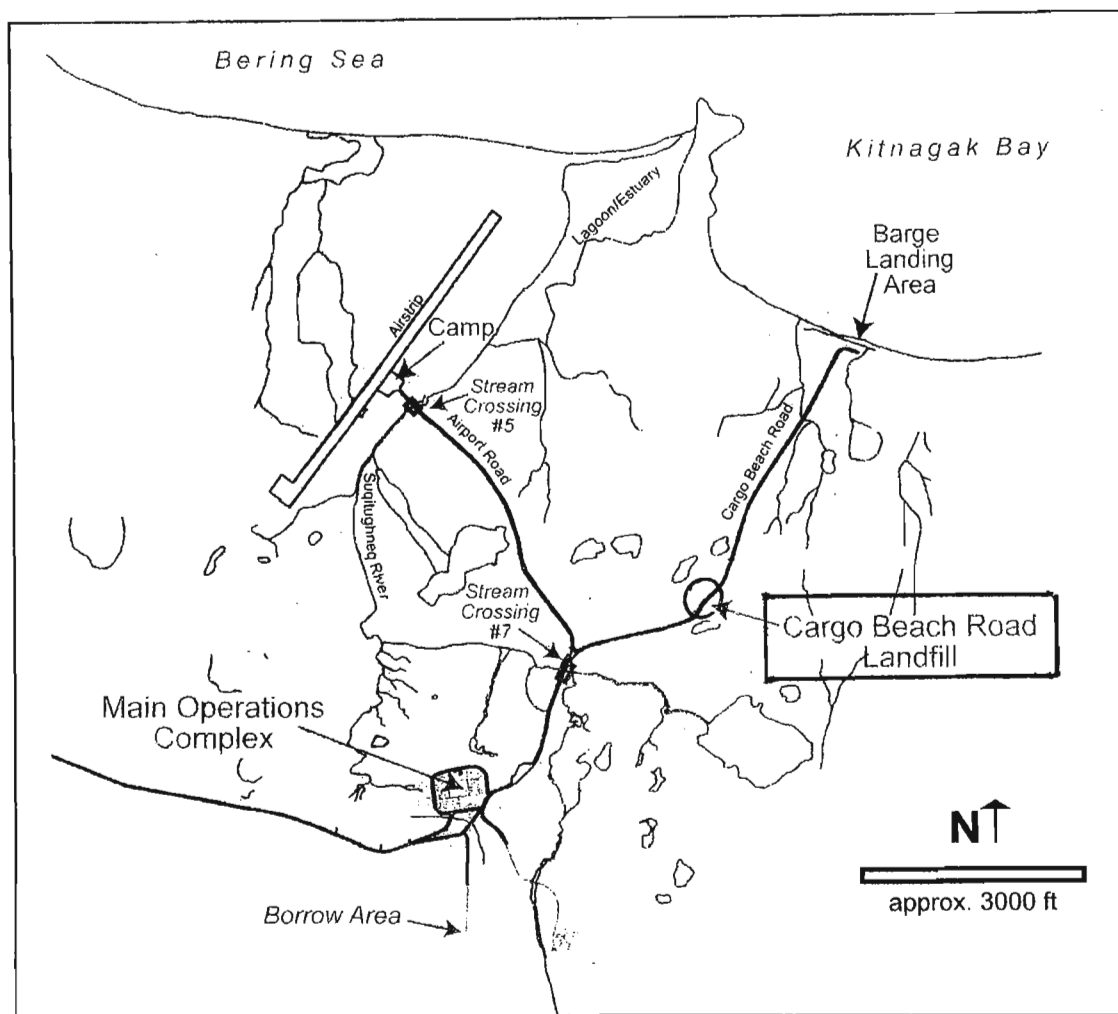


Figure 2. Northeast Cape 2009 project sites.

POA-2009-379 U.S. Army Corps of Engineers
Defense Environmental Restoration Program
 Northeast Cape, St. Lawrence Island, Alaska
 Project description page 2 and site map
 Sheet 2 of 6 June 2009

Cargo Beach Road Landfill

The Cargo Beach Road Landfill is an unpermitted landfill that was used as the installation's main solid waste disposal area from 1965 until closure in 1974. The dump contains a wide variety of unknown materials. The landfill appears to have been created by dumping debris off the sides of a topographic mound. The debris was apparently covered by grading soil out from the top of the mound. The landfill covers approximately 500,000 square feet.

The selected remedy entails the following major components:

- Exposing underlying drums/debris by disturbing the upper approximately 1 foot of fill across the areas with mapped metallic anomalies (an estimated 150,000 square feet; see Figure 3) to determine if near surface drums are present.
- Excavate test pits or trenches distributed across the areas of known metallic anomalies and previously marked drums to determine if large caches of drums are present;
- Remove or drain identified drums (estimated 50) with liquid contents; characterize the waste contents; transport off-site for proper disposal;

- Remove incidental contaminated soils (estimated 50 cubic yards) associated with identified drums to the extent severely-stained soils are evident; characterize the soils for disposal; transport off-site for proper disposal;
- **Capping of entire landfill with 3 feet of fill. Current plan is to place half the final depth of fill (1.5 feet, requiring ~30,000 cubic yards) in 2009, and complete in a future year. Fill will come from an established commercial quarry (see Figure 2).**
- Revegetation of the site;
- Survey of the landfill boundary with map and text description;
- Deed notation;
- Implementation of land use controls to limit groundwater use and prevent construction of buildings on top of the landfill.
- Visual monitoring of the capped area for settlement and erosion over a period of 5 years, with additional periodic reviews as necessary.

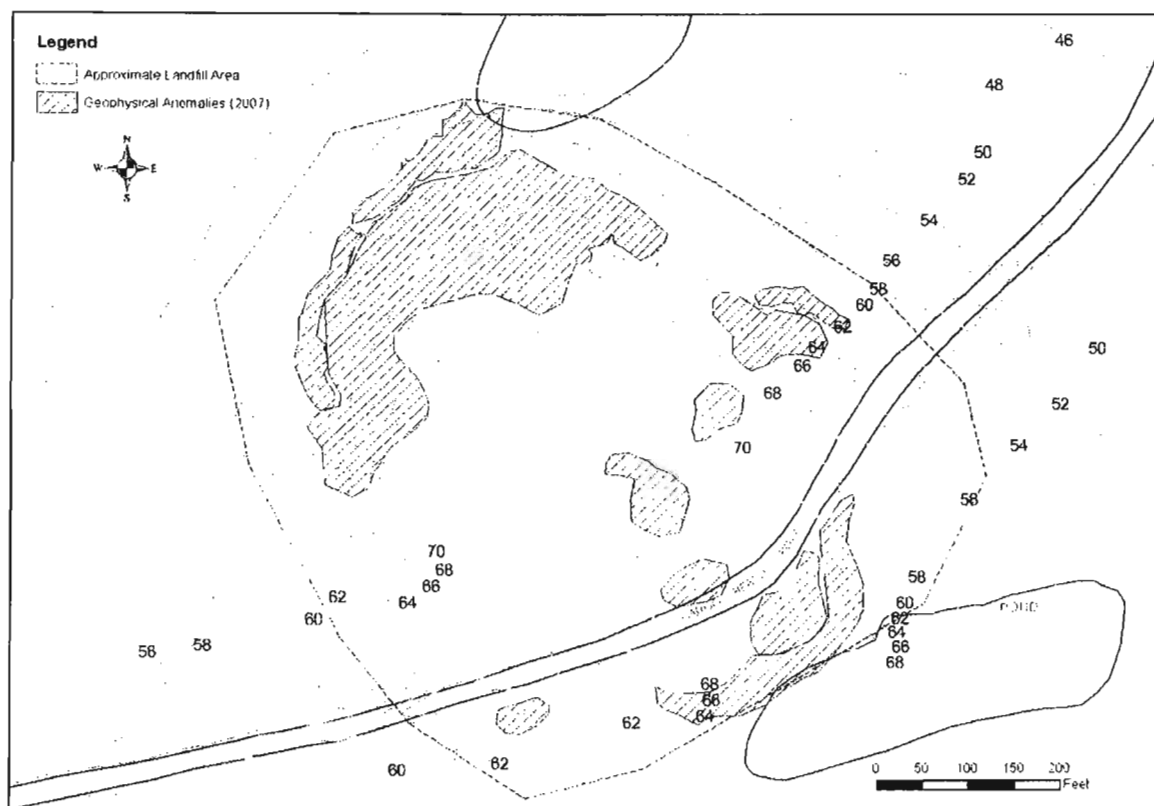
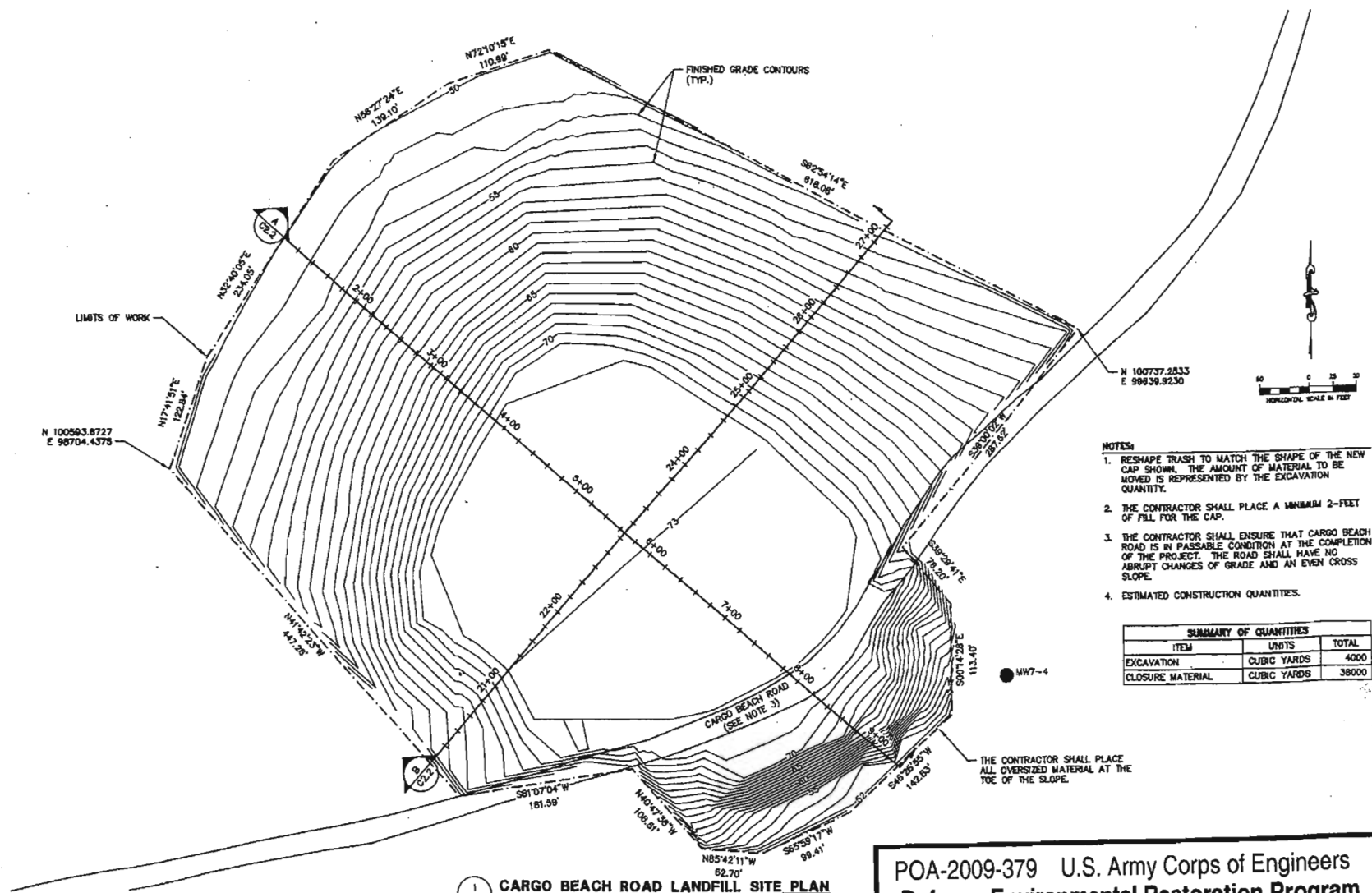


Figure 3. Cargo Beach Road Landfill, extent of buried debris.

POA-2009-379 U.S. Army Corps of Engineers
Defense Environmental Restoration Program
 Northeast Cape, St. Lawrence Island, Alaska
 Project description page 3 and existing landfill
 Sheet 3 of 6 June 2009



- NOTES:**
1. RESHAPE TRASH TO MATCH THE SHAPE OF THE NEW CAP SHOWN. THE AMOUNT OF MATERIAL TO BE MOVED IS REPRESENTED BY THE EXCAVATION QUANTITY.
 2. THE CONTRACTOR SHALL PLACE A MINIMUM 2-FOOT OF FILL FOR THE CAP.
 3. THE CONTRACTOR SHALL ENSURE THAT CARGO BEACH ROAD IS IN PASSABLE CONDITION AT THE COMPLETION OF THE PROJECT. THE ROAD SHALL HAVE NO ABRUPT CHANGES OF GRADE AND AN EVEN CROSS SLOPE.
 4. ESTIMATED CONSTRUCTION QUANTITIES.

SUMMARY OF QUANTITIES		
ITEM	UNITS	TOTAL
EXCAVATION	CUBIC YARDS	4000
CLOSURE MATERIAL	CUBIC YARDS	38000

● MW7-4

THE CONTRACTOR SHALL PLACE ALL OVERSIZED MATERIAL AT THE TOE OF THE SLOPE.

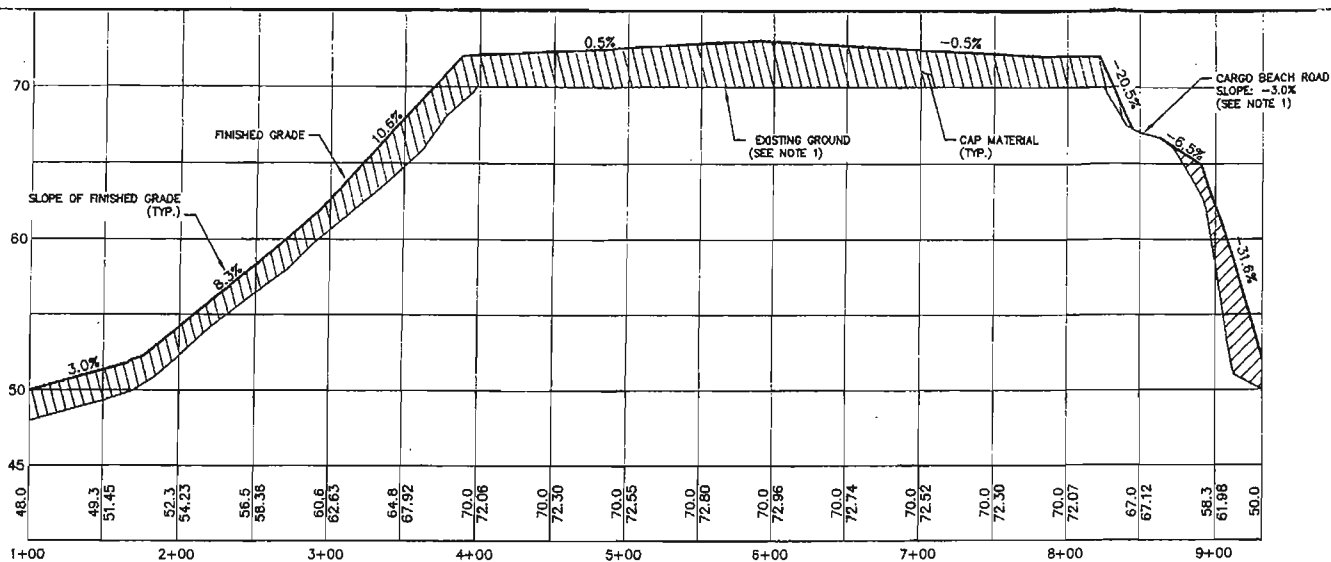
CARGO BEACH ROAD LANDFILL SITE PLAN
SCALE: SHOWN

REVISIONS				REVISIONS			
BY	DESCRIPTION	NO.	DATE	BY	DESCRIPTION	NO.	DATE

Bristol
ENVIRONMENTAL & ENGINEERING
SERVICES CORPORATION

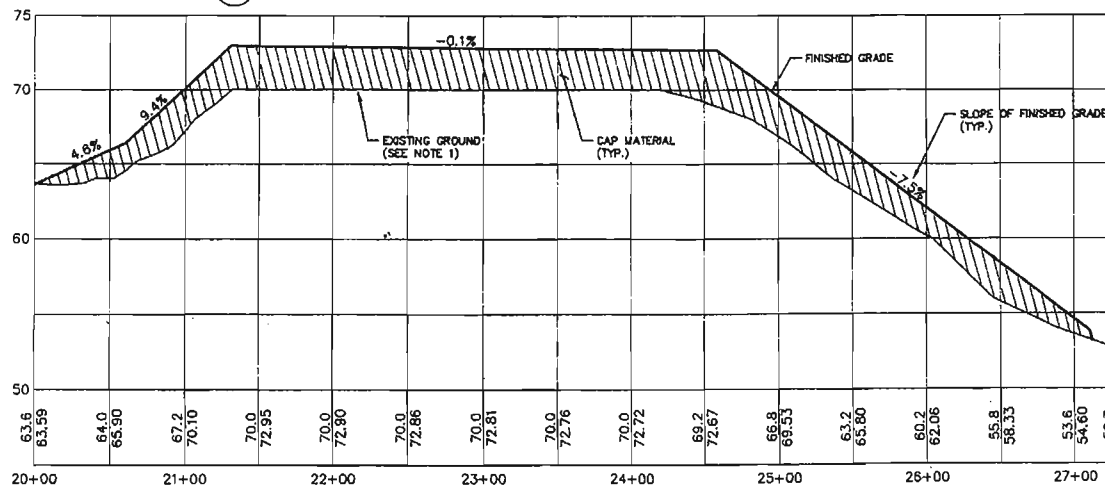
Project No. 210005

POA-2009-379 U.S. Army Corps of Engineers
Defense Environmental Restoration Program
Northeast Cape, St. Lawrence Island, Alaska
Landfill final contours – plan view
Sheet 4 of 6
June 2009

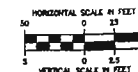


A CARGO BEACH ROAD LANDFILL PROFILE - NORTHWEST TO SOUTHEAST
SCALE: SHOWN

NOTES:
1. HORIZONTAL AND VERTICAL CONTROL IS BASED ON INFORMATION SHOWN IN THE 'GEOPHYSICAL SURVEY NORTHEAST CAPE' REPORT PREPARED BY R&M CONSULTANTS FOR THE USACE. FUDS #10AK089905.



B CARGO BEACH ROAD LANDFILL PROFILE - SOUTHWEST TO NORTHEAST
SCALE: SHOWN



REVISIONS			REVISIONS		
DATE	BY	DESCRIPTION	NO.	DATE	BY

Bristol
ENVIRONMENTAL & ENGINEERING
SERVICES CORPORATION

Project No. 210005

NE CAPE, ST. LAWRENCE ISLAND, ALASKA
INTRUSIVE DRUM REMOVAL/LANDFILL CAP

CARGO BEACH ROAD LANDFILL

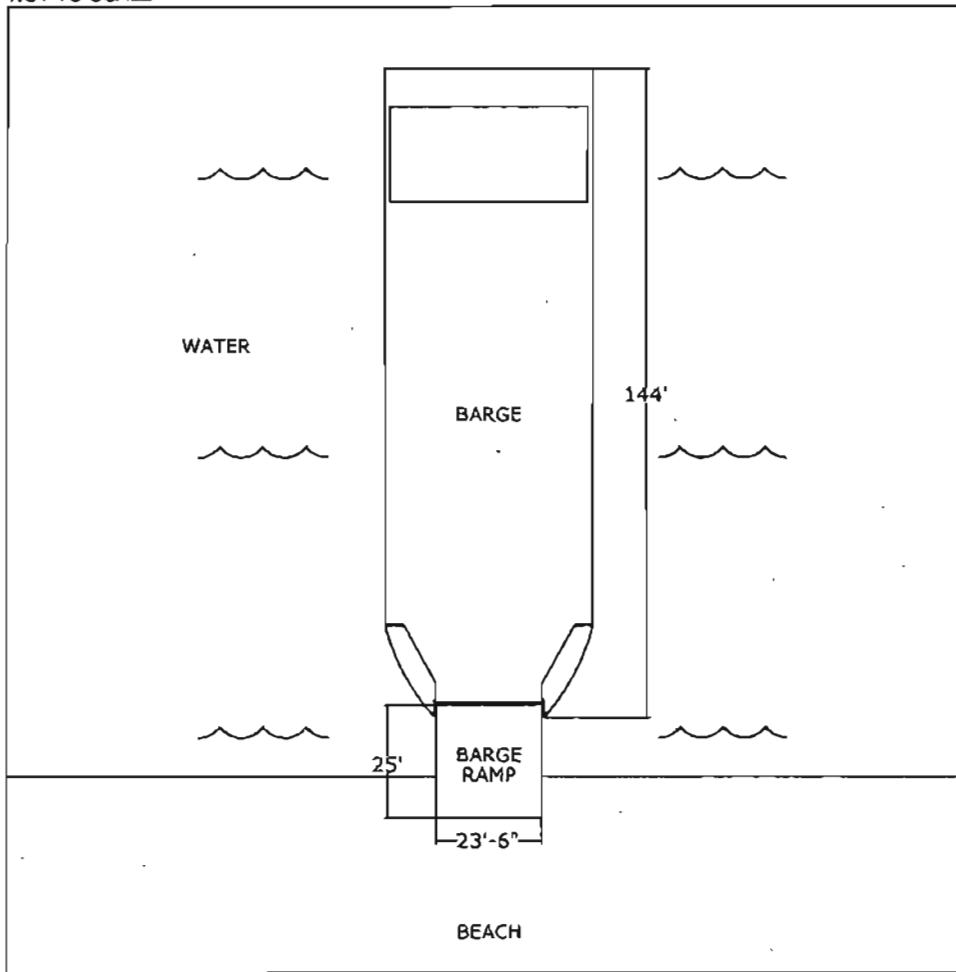
85% DESIGN
NOT FOR CONSTRUCTION

SHEET NO.

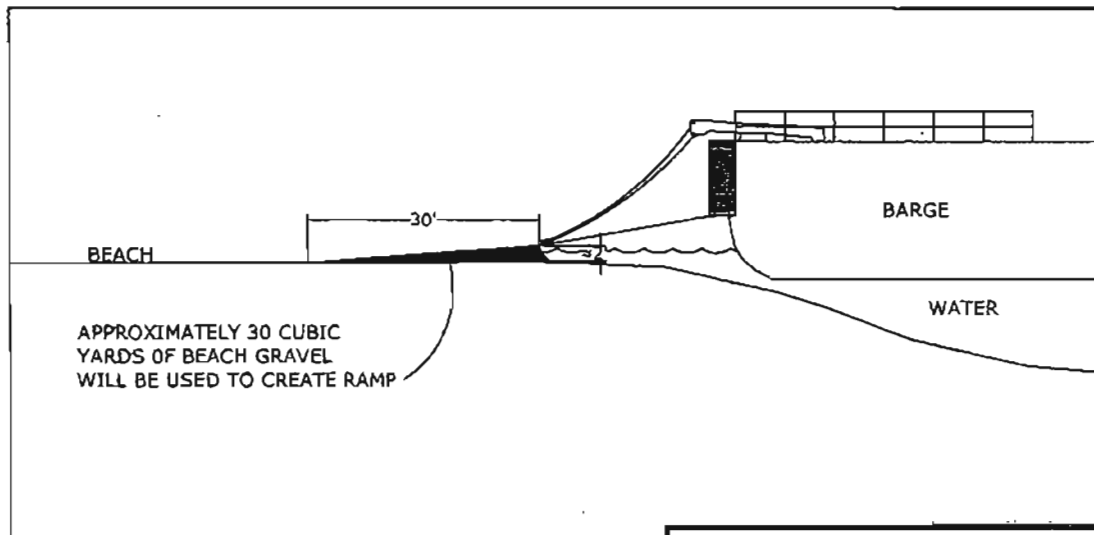
C2.2

POA-2009-379 U.S. Army Corps of Engineers
Defense Environmental Restoration Program
Northeast Cape, St. Lawrence Island, Alaska
Landfill final contours – typical profiles
Sheet 5 of 6
June 2009

BARGE AND LANDING PROFILE
NOT TO SCALE



TYPICAL BARGE RAMP AND LANDING DETAIL
NOT TO SCALE



Enclosure



US Army Corps of Engineers
Alaska District

Permit Number: POA-2009-379

Name of Permittee: U.S. Army Corps of Engineers, Defense Environmental
Restoration Project

Date of Issuance: JUN 30 2009

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to Mary Leykom at the following address:

U.S. Army Corps of Engineers
Alaska District
Regulatory Division
Post Office Box 6898
Elmendorf AFB, Alaska 99506-0898

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

June 29, 2009

Guy R. McConnell
Chief, Environmental Resources Section
U.S. Army Corps of Engineers, District Alaska
PO Box 6898
Elmendorf AFB, AK 99506-0898

Dear Mr. Connell:

I have reviewed your May 18, 2009 letter to Doug Mecum concerning an Army Corps of Engineers (ACOE) Formerly Used Defense Site (FUDS) project proposed at Northeast Cape on Saint Lawrence Island. The Steller sea lion (*Eumetopias jubatus*) is a species listed as "endangered" under the Endangered Species Act and may occur in the project vicinity. There is Steller sea lion designated critical habitat on haulout sites located on South Punuk Island at (64 04.0N, 168 51.0W) and at SW Cape (63 18.0N, 171 26.0W) on St. Lawrence Island. Other listed species you have identified as potentially present include: blue, fin, humpback, North Pacific right, and sperm whales.

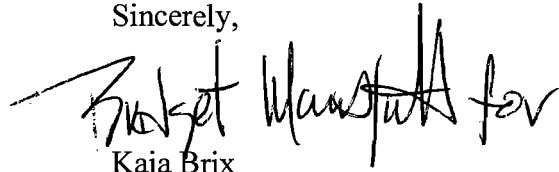
According to your project description, contractors will access St. Lawrence Island by landing craft at Kitnagak Bay on the opposite site of the island and approximately 19 miles away from the nearest designated Steller sea lion critical habitat at South Punuk Island. As stated in your description: "There will be no reason for the landing craft to approach either of these two critical habitats." Any aircraft associated with the project will approach from the east and land at the Northeast Cape airstrip, and there will be no need to approach the Punuk Islands.

Based on the information in your letter and data available to us concerning critical habitat and the distribution of Steller sea lions and other species listed as "endangered" under NOAA Fisheries jurisdiction in the project area, we concur with your conclusion that the proposed activities will have no effect on the Federally listed species identified. However, our information concerning possible Steller sea lion use of St. Lawrence Island is scant and somewhat dated. Thus, if for any reason ACOE staff or contractors observe or encounter Steller sea lions within the project area, we request operations immediately cease and that ACOE staff contact our office to reinstate consultation.



Please contact Mr. Dana J. Seagars (907-271-5005) or by e-mail
(dana.seagars@noaa.gov) if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Kaja Brix", with a stylized flourish at the end.

Kaja Brix

ARA, Protected Resources Division

**DEPARTMENT OF THE ARMY
RIGHT-OF-ENTRY FOR
ENVIRONMENTAL ASSESSMENT AND RESPONSE**

SAINT LAWRENCE ISLAND, ALASKA
(Project, Installation or Activity)

NO. DACA85-8-08-0134
(Property Identification Number)

The undersigned, hereinafter called the "**Owner**", in consideration of the mutual benefits of the work described below, hereby grants to the **UNITED STATES OF AMERICA**, hereinafter called the "**Government**", a right-of-entry upon the following terms and conditions:

1. The Owner hereby grants to the Government an irrevocable right to enter in, on, over and across the land described herein, for a period not to exceed five (5) years, **beginning June 1, 2008**, and terminating upon the earlier completion of remediation or the filling of a notice of termination in the local land records by the representative of the United States in charge of the Saint Lawrence Island remediation project, for use by the United States, its representatives, agents, contractors, and assigns, as a work area for environmental investigation and response; including the right to store, move, and remove equipment and supplies; erect and remove temporary structures on the land; investigate and collect samples; excavate and remove ordnance and explosive waste, pollutants, hazardous substances, contaminated soils, containerized waste, and replace with uncontaminated soil; excavate and remove all storage tanks (above, at and below ground level), contents and appurtenant piping; demolish and dispose of former military structures and debris; construct, operate, maintain, alter, repair and remove groundwater monitoring wells, groundwater purification and injection systems, appurtenances thereto and other devices for the monitoring and treatment of contamination in soil, air and water; and perform any other such work which may be necessary and incident to the Government's use for the environmental investigation and response on said lands; subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving, however, to the landowner(s), their heirs, executors, administrators, successors and assigns, all such right, title, interest and privilege as may be used and enjoyed without interfering with or abridging the rights and right-of-entry hereby acquired.

2. The Owner also grants the right to enter and exit over and across any other lands of the Owner as necessary to use the described lands for the purposes listed above.

3. All tools, equipment, and other property taken upon or placed upon the land by the Government shall remain the property of the Government and may be removed by the Government at any time within a reasonable period after the expiration of this permit or right-of-entry.

4. Upon expiration or termination of this right-of-entry, the Government shall assure restoration of the ground contour and replace any pavement or other cover which was removed or damaged for this work, establish a groundcover of grass on areas not otherwise covered and reconnect any operating utility lines which were required to be disconnected or otherwise disrupted.

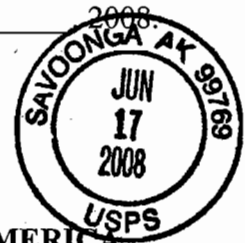
5. If any action of the Government's employees or agents in the exercise of this right-of-entry results in damage to the real property, the Government will, in its sole discretion, either repair such damage or make an appropriate settlement with the Owner. In no event shall such repair or settlement exceed the fair market value of the fee title to the real property at the time immediately preceding such damage. The Government's liability under this clause is subject to the availability of appropriations for such payment, and nothing contained in this agreement may be considered as implying that Congress will at a later date appropriate funds sufficient to meet any deficiencies. The provisions of this clause are without prejudice to any rights the Owner may have to make a claim under applicable laws for any damages other than those provided for herein.

6. The land affected by this right-of-entry is located in the State of Alaska, and is described as follows:

**All surface and subsurface rights on Saint Lawrence Island, Alaska, within
Township 20 South, Range 67 West, Kateel River Meridian and;
Township 25 South, Range 54 West, Kateel River Meridian**

WITNESS MY HAND AND SEAL this 17 day of June

Carson Schryger



KUKULGET, INCORPORATED
Perry Pungowiyi, President

Perry Pungowiyi
Authorized Signature

P.O. Box 160
Address

(907) 984-6184
Telephone Number

UNITED STATES OF AMERICA

Veronica A. Hiriama
Veronica A. Hiriama
Chief, Real Estate Division
US Army Engineer District, AK
P.O. Box 898
Anchorage, Alaska 99506-0898

SAINT LAWRENCE ISLAND, ALASKA

(Project, Installation or Activity)

NO. DACA85-8-08-0134

(Property Identification Number)

SIVUQAQ, INCORPORATED~~Bruce Bookowon, President~~

marle Apassingok, Acting Chairman


Authorized Signature

P.O. Box 101 Gram bel, AK. 99742

Address

(907) 985-5826

Telephone Number

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

*DIVISION OF PARKS AND OUTDOOR RECREATION
OFFICE OF HISTORY AND ARCHAEOLOGY*

SARAH PALIN, GOVERNOR

550 W. 7TH AVENUE, SUITE 1310
ANCHORAGE, ALASKA 99501-3565
PHONE: (907) 269-8721
FAX: (907) 269-8908

July 2, 2009

File No.: 3130-1R COE/Environmental
3330-6N XSL-060

SUBJECT: Cleanup operations at Northeast Cape, Saint Lawrence Island
FUDS program

Guy R. McConnell
Chief, Environmental Resources Section
U. S. Army Corps of Engineers, Alaska District
P. O. Box 6898
Anchorage, AK 99506-0898

Dear Mr. McConnell:

The Alaska State Historic Preservation Office received your correspondence on May 29, 2009 and has reviewed your proposed cleanup operations under Section 106 of the National Historic Preservation Act. As mentioned in your letter, Alaska Heritage Resources Survey (AHRs) site, Northeast Cape AC & W and WACS (XSL-060) is within the area of potential effect. Demolition of XSL-060 has already been mitigated however, through implementation of a memorandum of agreement between the Corps and SHPO (signed in 1999). We concur with your finding therefore, that no historic properties will be adversely affected by this project.

Please contact Stefanie Ludwig at 269-8720 if you have any questions or if we can be of further assistance.

Sincerely,



Judith E. Bittner
State Historic Preservation Officer

JEB:sll



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish and Wildlife Field Office
605 West 4th Avenue, Room G-61
Anchorage, Alaska 99501-2249



in reply refer to AFWFO

May 13, 2009

Susan Luetters
Bristol Environmental & Engineering Services Corporation
111 W 16th Ave., Third Floor
Anchorage, Alaska 99501

Re: St. Lawrence Island NE Cape Site USACE Dump Cleanup (*Consultation number 2009-0093*)

Dear Ms. Luetters,

On April 14, 2009, we received your email that Bristol Environmental & Engineering Services Corporation is working with the U.S. Army Corps of Engineers relative to a former military installation and White Alice Site that is in the process of being remediated towards closure. This site is located on the northeast corner of St. Lawrence Island. The Cargo Beach Road Landfill is an unpermitted landfill that was used as the installation's main solid waste disposal area from 1965 until closure in 1974. Bristol Environmental & Engineering Services Corporation is currently preparing the storm water pollution prevention plan relative to the removal of drums within an area that is the former dump site for the facility. Bristol Environmental & Engineering Services Corporation is scoped to remove 75 tons of contaminated soil with an option of another 150 tons of contaminated soil if needed. There will be no field screening or soil sampling and an in-situ chemical oxidation process will be used to remediate petroleum hydrocarbons in groundwater and soil at the former Main Operations Complex. Bristol Environmental & Engineering Services Corporation will remove drums filled with liquid up to 2500 gallons and the whole site will be capped with local material from a nearby and existing borrow area.

On May 11, 2009, I spoke with Chris Floyd from the Army Corps of Engineers. Apparently this former dump site was used to dispose of containers filled with various unknown liquids and when the military was done using the site, the dump site was simply covered with a large mound of dirt. Currently, contaminants, namely petroleum hydrocarbons, are leaking out of the sides of this mounded area and this project is to remedy that situation, remove drums, and re-cap the site more effectively.

As stated in the information you provided on April 14, 2009, drums containing liquids will be transported to a drum-processing area, to be established along Cargo Beach Road immediately northeast of the site. Contaminated soil will be placed in lined intermodal shipping containers for off-island disposal. Wastewater will be cleaned and disposed of on-site. From your email on April 23, 2009, with respect to the potential for migratory ground nesting birds, the crew will evaluate the site prior to beginning work. However, consultation by you with a Bristol employee that has been involved with the project in the past indicated that there is a high fox population on that end of the island which makes the likelihood of ground nesting birds rather low.

As we discussed on April 21, 2009, yellow-billed loons (*Gavia adamsii*, listed as a candidate species in 2009) nest on St. Lawrence Island. However, they are less than likely to nest in the action area because the site is disturbed and lacking vegetation in some places. In addition, the

Ms. Susan Luetters

fox population is reported to be high in the action area and the crew will look for migratory bird nests prior to beginning work.

Spectacled eiders (*Somateria fischeri*, listed as threatened in 1993) may stage for migration off the northern coast of the action area from July 15 – October 1. This work is proposed for Summer 2009 and thus spectacled eiders may be present in the vicinity during the action. However, wastewater will be cleaned on-site without an outfall and wastes will be transferred to appropriate containers for storage and off-island disposal.

As a result, we believe the probability that this action will result in the taking of listed species is discountable. As a result, the Service concurs with your determination that the proposed action is not likely to adversely affect listed species or adversely modify critical habitat. Preparation of a biological assessment or further consultation under section 7 of the ESA is not necessary at this time. In view of this, requirements of section 7 have been satisfied. However, obligations under the ESA must be reconsidered if new information reveals project impacts that may affect listed species or critical habitat in a manner not previously considered, if this action is subsequently modified in a manner which was not considered in this assessment, or if a new species is listed or critical habitat is determined that may be affected by the identified action.

This letter relates only to federally listed or proposed species, and/or designated or proposed critical habitat, under our jurisdiction; namely, the Aleutian shield fern (*Polystichum aleuticum*, listed as endangered in 1988), spectacled eider (*Somateria fischeri*, listed as threatened in 1993), North American breeding Steller's eider (*Polysticta stelleri*, listed as threatened in 1997), the southwest distinct population segment of northern sea otter (*Enhydra lutris kenyoni*, listed as threatened in 2005), short-tailed albatross (*Phoebastria albatrus*, listed as endangered in 2000), polar bear (*Ursus maritimus*, listed as threatened in 2008), Kittlitz's murrelet (*Brachyramphus brevirostris*, listed as a candidate species in 2005), and yellow-billed loon (*Gavia adamsii*, listed as a candidate species in 2009). This letter does not address species under the jurisdiction of the National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act, Clean Water Act, National Environmental Policy Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, or Bald and Golden Eagle Protection Act.

Thank you for your cooperation in meeting our joint responsibilities under section 7 of the ESA. If you have any questions, please contact me at (907) 271-3063 and refer to consultation number 2009-0093.

Sincerely,

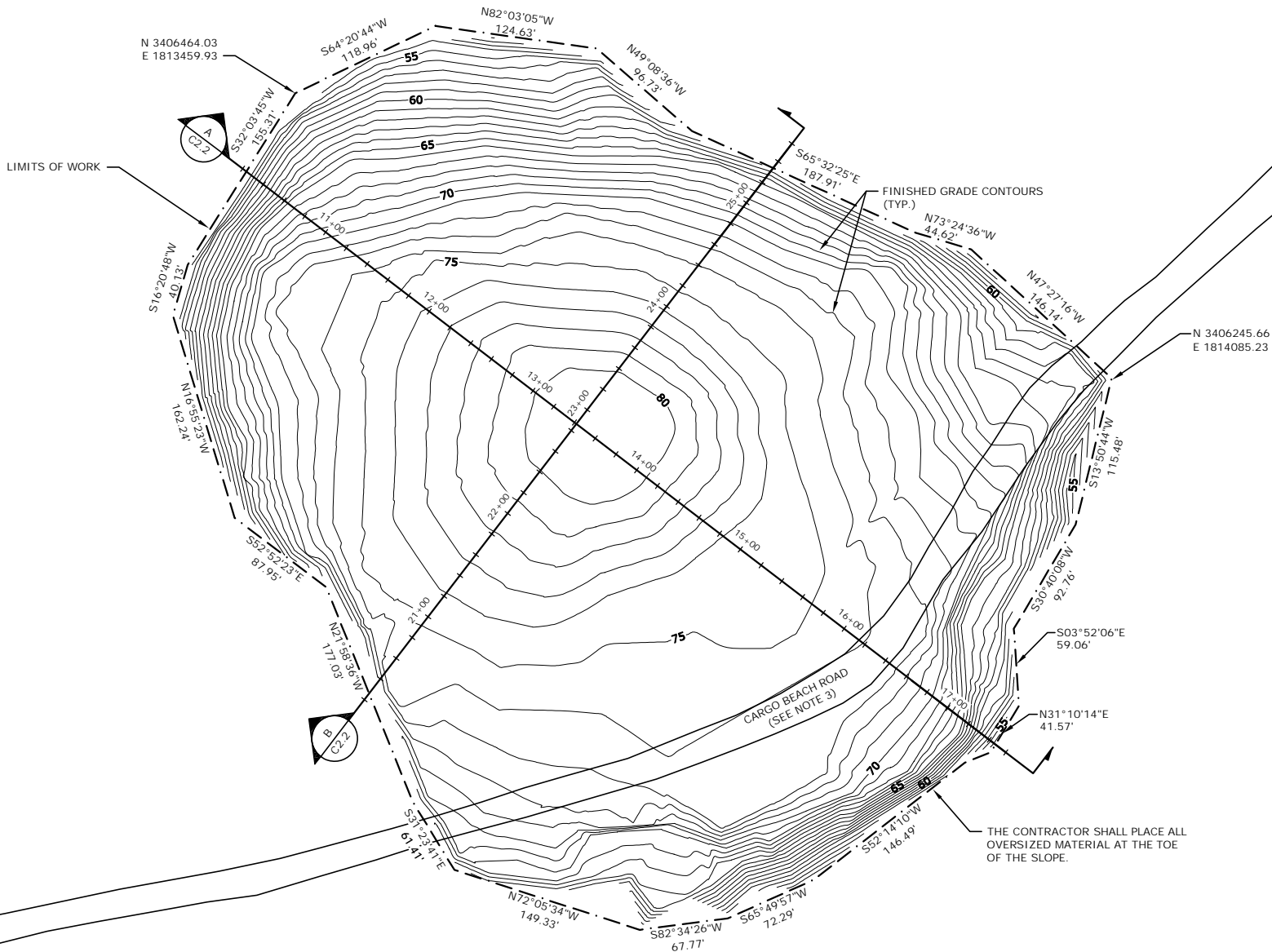


Tim Langer, Ph.D.
Endangered Species Biologist

APPENDIX E

Site 7 Survey Information

User: MGARCIA Jul 17, 2009 - 2:54pm
Drawing: K:\JDBS\210005 CIV\DES NECAPELF\ACAD-DESIGN\CIV DES 210005_C-2_REV1.DWG - Layout: C2.1
Xrefs: BR22X34REV.DWG 210005_BASE.DWG - Images: APPENDIX A 1.TIF



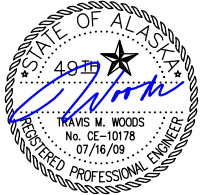
- NOTES:
1. RESHAPE TRASH TO MATCH THE SHAPE OF THE NEW CAP SHOWN.
 2. THE CONTRACTOR SHALL PLACE A MAXIMUM 2-FEET OF FILL FOR THE CAP.
 3. THE CONTRACTOR SHALL ENSURE THAT CARGO BEACH ROAD IS IN PASSABLE CONDITION AT THE COMPLETION OF THE PROJECT. THE ROAD SHALL HAVE NO ABRUPT CHANGES OF GRADE AND AN EVEN CROSS SLOPE.
 4. ESTIMATED CONSTRUCTION QUANTITIES.

SUMMARY OF QUANTITIES		
ITEM	UNITS	TOTAL
CLOSURE MATERIAL	CUBIC YARDS	30000

1 CARGO BEACH ROAD LANDFILL SITE PLAN
SCALE: SHOWN

Bristol
ENVIRONMENTAL & ENGINEERING
SERVICES CORPORATION

Project No. 210005



NE CAPE, ST. LAWRENCE ISLAND, ALASKA
INTRUSIVE DRUM REMOVAL/LANDFILL CAP

CARGO BEACH ROAD LANDFILL
SITE PLAN

SHEET NO.

C2.1

SCALE: SHOWN DESIGNED: DST CHECKED: TMW DRAWN: DST DATE: 07/16/09 SHEET 3 OF 4

NORTHEAST CAPE ST. LAWRENCE ISLAND AREA 7 DUMPSITE TOPOGRAPHIC SURVEY

2
N 3406599.5178
E 1814303.6993
ELEV. = 47.33
TBM A
N.E. SITE CORNER

"AS-BUILT" POST CONSTRUCTION
SURVEY CONDUCTED AUGUST 2009

CAP EXTERIOR BOUNDARY

LINE	BEARING	DISTANCE	L52	N73°07'35"E	26.60'
L1	N28°32'36"W	2.93'	L53	N79°30'05"E	26.08'
L2	N21°22'42"E	2.45'	L54	S61°54'38"E	26.14'
L3	N33°57'38"W	13.07'	L55	S79°23'12"E	17.67'
L4	N32°49'17"W	15.88'	L56	S47°57'04"E	16.94'
L5	N19°46'58"W	26.06'	L57	S34°24'23"E	9.44'
L6	N29°05'35"W	30.43'	L58	S34°44'55"E	13.63'
L7	N06°00'51"E	12.62'	L59	S89°38'11"E	5.37'
L8	N38°18'48"W	12.64'	L60	N50°32'36"E	6.62'
L9	N57°04'08"W	9.94'	L61	S51°27'08"E	7.36'
L10	S89°23'29"W	10.16'	L62	S01°04'55"E	8.93'
L11	N41°26'46"W	40.32'	L63	S66°26'11"E	3.77'
L12	N27°35'53"W	46.53'	L64	S50°49'49"E	6.93'
L13	N33°47'06"W	27.78'	L65	S46°27'39"E	9.54'
L14	N41°26'30"W	43.92'	L66	S53°18'19"E	10.28'
L15	N31°07'02"W	45.98'	L67	S31°48'16"E	5.40'
L16	N22°15'41"W	21.60'	L68	S72°29'07"E	27.14'
L17	N43°19'16"W	13.79'	L69	S46°57'44"W	76.81'
L18	N10°25'34"W	52.45'	L70	S42°37'30"E	9.65'
L19	N15°23'28"W	21.02'	L71	S50°02'17"E	9.55'
L20	N03°19'58"W	12.67'	L72	S13°58'06"E	7.41'
L21	N11°34'52"W	17.39'	L73	S03°08'19"E	19.72'
L22	N09°20'45"E	24.66'	L74	S47°51'29"W	23.91'
L23	N34°59'14"E	24.90'	L75	S07°57'25"W	29.46'
L24	N41°59'04"E	25.65'	L76	S14°40'57"W	23.19'
L25	N29°00'39"E	31.60'	L77	S46°39'26"W	20.55'
L26	N30°25'15"E	46.96'	L78	S45°43'44"W	13.39'
L27	N42°30'07"E	38.95'	L79	S42°01'07"W	11.15'
L28	N54°17'17"E	40.21'	L80	S44°27'48"W	27.23'
L29	N42°54'40"E	25.48'	L81	N87°39'22"W	7.63'
L30	N63°58'15"E	46.40'	L82	S20°01'34"W	22.02'
L31	S62°58'40"E	28.16'	L83	S23°50'30"E	14.71'
L32	N70°26'04"E	29.62'	L84	S03°27'53"W	56.29'
L33	N62°16'12"E	21.38'	L85	S01°49'55"W	22.11'
L34	S54°47'26"E	17.11'	L86	S27°03'15"W	15.87'
L35	S87°17'19"E	41.81'	L87	S53°07'43"W	39.00'
L36	S56°29'41"E	45.38'	L88	S61°25'12"W	54.00'
L37	S04°52'45"E	13.78'	L89	S64°38'43"W	57.97'
L38	S68°24'45"E	42.55'	L90	S83°03'01"W	42.26'
L39	N85°15'58"E	14.76'	L91	S68°28'15"W	22.79'
L40	S55°05'53"E	11.41'	L92	N62°42'14"W	21.90'
L41	S25°49'25"E	23.08'	L93	N83°38'44"W	54.22'
L42	S04°49'43"E	10.64'	L94	S82°07'16"W	45.99'
L43	S47°43'22"E	27.74'	L95	N85°33'28"W	11.81'
L44	S74°42'33"E	24.46'	L96	N52°28'10"W	35.08'
L45	S26°15'00"E	9.52'	L97	S74°47'15"W	54.31'
L46	S51°52'36"E	26.06'	L98	N33°53'49"W	26.34'
L47	S67°50'01"E	34.86'			
L48	N88°03'49"E	16.85'			
L49	S77°31'24"E	14.79'			
L50	S65°47'35"E	11.19'			
L51	S74°46'50"E	14.75'			

TOTAL SURFACE AREA:
342,832.52 SQ. FT./ 7.87 ACRES

* SURVEYOR'S CERTIFICATE *

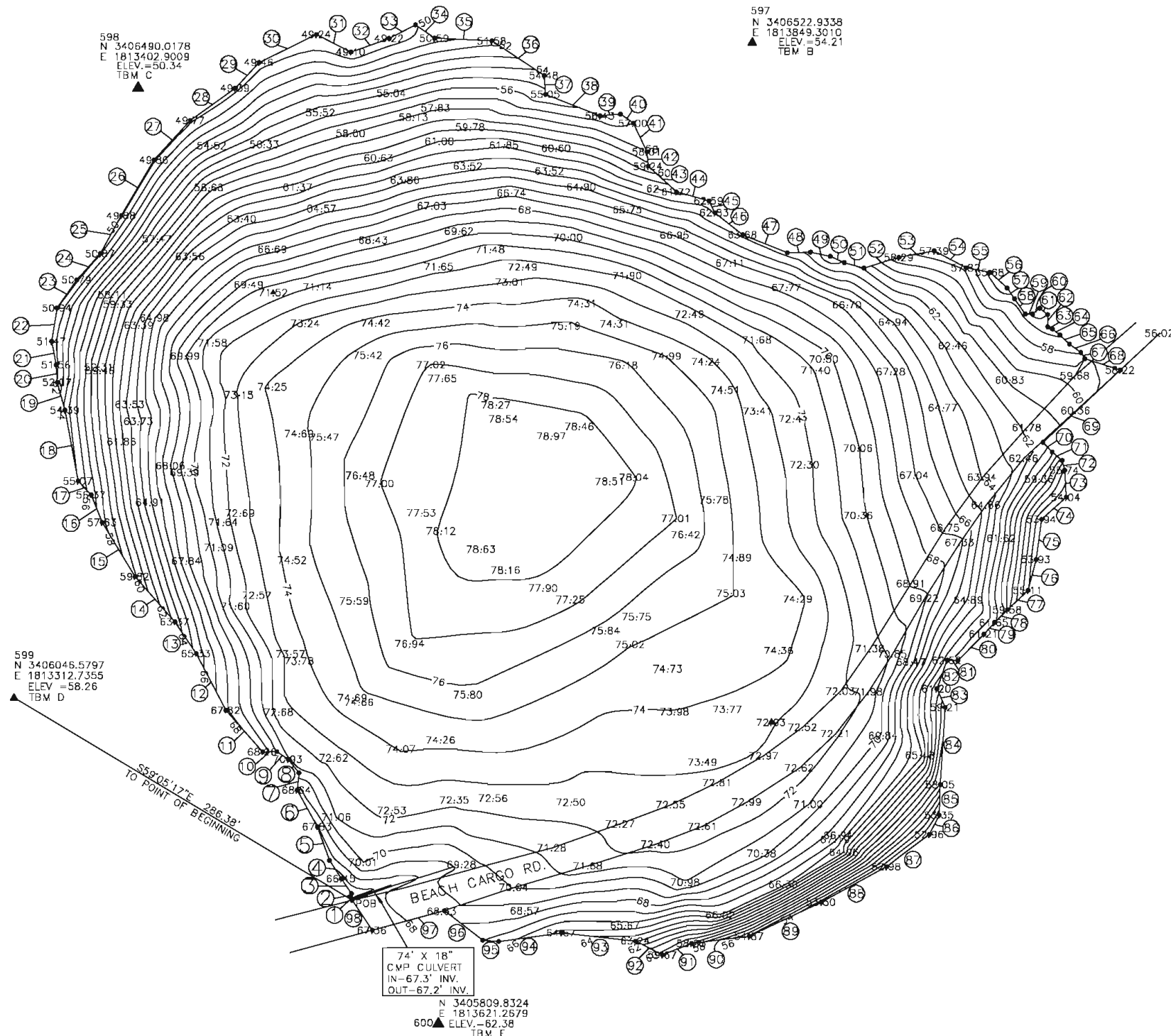
I HEREBY CERTIFY THAT I AM PROPERLY REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE MONUMENTS SHOWN HEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONS, RELATIVE BEARINGS, RELATIVE ELEVATIONS AND OTHER DETAILS ARE CORRECT.

DATE: 09/08/09

R. SCOTT MCCLINTOCK, SR.



SURVEYING & MAPPING
P.O. BOX 1444 NOME, ALASKA 99762
(907) 443-6068



* ** LEGEND **

- ②②—INDICATES EXTERIOR CAP BOUNDARY LINE COURSE
- ▲—INDICATES 5/8"X 30" REBAR CONTROL MONUMENT
- 55.52—INDICATES SURVEYED SPOT ELEVATION

* ** SURVEY NOTES **

1. THIS SURVEY WAS CONDUCTED USING RTK/GPS SURVEYING TECHNIQUES.
2. COORDINATES ARE ALASKA STATE PLANE ZONE 9 REDUCED TO HORIZONTAL GROUND IN US SURVEY FEET.
3. ELEVATIONS AND COORDINATES ARE BASED UPON A SINGLE POINT STATIC OBSERVATION USING NGS OPUS SOLUTION.
4. CONTOUR INTERVAL IS ONE FOOT.

This information is provided as metadata to .dwg										
ID	Location	Quad Location	Agency	Station Name	Date	Local Datum (Ft.)	Sealevel 1 (MSL)	Vertical NGVD29 Elevations (Ft.)	Sealevel 2 (MSL)	Vertical NAVD88 Elevations
1	Northeast Cape, St. Lawrence Island, Alaska	St. Lawrence Island	Eco-Land, LLC	TBM E	2009					62.34
2	Northeast Cape, St. Lawrence Island, Alaska	St. Lawrence Island	Eco-Land, LLC	TBM B	2009					54.21
3	Northeast Cape, St. Lawrence Island, Alaska	St. Lawrence Island	Eco-Land, LLC	TBM C	2009					50.34
4	Northeast Cape, St. Lawrence Island, Alaska	St. Lawrence Island	Eco-Land, LLC	TBM D	2009					58.26
5	Northeast Cape, St. Lawrence Island, Alaska	St. Lawrence Island	Eco-Land, LLC	TBM E	2009					62.38
6	Northeast Cape, St. Lawrence Island, Alaska	St. Lawrence Island	Eco-Land, LLC	TBM F	2009					72.93
7	Northeast Cape, St. Lawrence Island, Alaska	St. Lawrence Island	Eco-Land, LLC	Random Base	2009					28.26
8	Northeast Cape, St. Lawrence Island, Alaska	St. Lawrence Island	Eco-Land, LLC	TBM G GPS2 AC	2009					71.52

Horizontal Local Grid Northing	Horizontal Local Grid Easting	Alaska State Plane Zone	Horizontal NAD 27 Coors Northing (US Survey Foot)	Horizontal NAD 27 Coors Easting (US Survey Foot)
		Alaska State Plane Zone 9	3406189.288	773634.7851
		Alaska State Plane Zone 9	3406902.361	773862.7966
		Alaska State Plane Zone 9	3406869.451	773416.4183
		Alaska State Plane Zone 9	3406426.01	773326.258
		Alaska State Plane Zone 9	3406189.255	773634.7756
		Alaska State Plane Zone 9	3406408.261	773876.7508
		Alaska State Plane Zone 9	3409432.167	769586.506
		Alaska State Plane Zone 9	3406720.694	773514.8784

Horizontal NAD 83 Coors Northing (meters)	Horizontal NAD 83 Coors Easting (meters)	Description
1038092.923	552792.8709	Temporary Benchmark
1038310.267	552862.3727	Temporary Benchmark
1038300.234	552726.3096	Temporary Benchmark
1038165.074	552698.8272	Temporary Benchmark
1038092.913	552792.868	Temporary Benchmark
1038159.666	552866.6259	Temporary Benchmark
1039081.326	551558.8944	Random Base
1038254.894	552756.3217	Temporary Benchmark

APPENDIX F

Transportation Documents and Certificates of Disposal



Generator's Nonhazardous Waste Profile Sheet

Requested Disposal Facility Columbia Ridge Landfill Profile Number _____

☐ Renewal for Profile Number _____ Waste Approval Expiration Date _____

A. Waste Generator Facility Information (must reflect location of waste generation/origin)

- | | |
|--|---|
| 1. Generator Name: <u>U.S. ARMY ENGINEER DISTRICT, AK</u> | 7. Email Address: <u>carey.cossaboom@</u> |
| 2. Site Address: <u>St. Lawrence NEC Facility Wide, NE Cape</u> | 8. Phone: <u>907-753-2689</u> |
| 3. City/ZIP: <u>St. Lawrence Island, Savoonga, Alaska, 99769</u> | 9. FAX: <u>907-384-7441</u> |
| 4. State: <u>ALASKA</u> | 10. NAICS Code: _____ |
| 5. County: _____ | 11. Generator USEPA ID #: <u>FUDS (D981765894) EPA (AK0000228395)</u> |
| 6. Contact Name/Title: <u>CAREY COSSABOOM</u> | 12. State ID# (if applicable): _____ |

B. Customer Information ☐ same as above

P. O. Number: _____

- | | | |
|--|---|------------------------|
| 1. Customer Name: <u>Bristol Environmental Remediation Svcs.</u> | 6. Phone: <u>9075630013</u> | FAX: <u>9075636713</u> |
| 2. Billing Address: <u>111 West 16th Avenue, third Floor</u> | 7. Transporter Name: <u>Northland Services, Inc., RoadLink, Union Pacific</u> | |
| 3. City, State and ZIP: <u>Anchorage, Alaska, 99501</u> | 8. Transporter ID # (if appl.): _____ | |
| 4. Contact Name: <u>Tyler Ellingboe</u> | 9. Transporter Address: _____ | |
| 5. Contact Email: <u>tellingboe@bristol-companies.com</u> | 10. City, State and ZIP: _____ | |

C. Waste Stream Information

1. DESCRIPTION

a. Common Waste Name: PETROLEUM CONTAMINATED SOIL State Waste Code(s): _____

b. Describe Process Generating Waste or Source of Contamination:

Removal of Petroleum Stained Soil from an Old Military Landfill Site

c. Typical Color(s): Brown/Black

d. Strong Odor? ☐ Yes ☒ No Describe: _____

e. Physical State at 70°F: ☒ Solid ☐ Liquid ☐ Powder ☐ Semi-Solid or Sludge ☐ Other: _____

f. Layers? ☒ Single layer ☐ Multi-layer ☐ NA

g. Water Reactive? ☐ Yes ☒ No If Yes, Describe: _____

h. Free Liquid Range (%): _____ to _____ ☒ NA(solid)

i. pH Range: ☐ ≤2 ☐ 2.1-12.4 ☐ ≥12.5 ☒ NA(solid) ☐ Actual: _____

j. Liquid Flash Point: ☐ < 140°F ☐ ≥ 140°F ☒ NA(solid) ☐ Actual: _____

k. Flammable Solid: ☐ Yes ☒ No

l. Physical Constituents: List all constituents of waste stream - (e.g. Soil 0-80%, Wood 0-20%): ☐ (See Attached)

Constituents (Total Composition Must be ≥ 100%)	Concentration %	Constituents (Total Composition Must be ≥ 100%)	Concentration %
1. <u>Soil/Rocks</u>	<u>95 - 100</u>	4. <u>DIESEL RANGE ORGANICS (mg/kg)</u>	<u>0 - 11.000</u>
2. <u>Plastic/Wood/Debris</u>	<u>0 - 5</u>	5. <u>Polychlorinated Biphenyls (mg/kg)</u>	<u>0 - 1</u>
3. <u>Lead (TCLP metals) (mg/L)</u>	<u>0 - 1.4</u>	6. _____	_____

2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMATION

a. ☐ Event ☒ Base/Ongoing (Check One)

b. Estimated Annual Quantity: 150 ☒ Tons ☐ Cubic Yards ☐ Drums ☐ Gallons ☐ Other (specify): _____

c. Shipping Frequency: 8 Units per ☐ Month ☐ Quarter ☒ Year ☐ One Time ☐ Other

d. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If yes, answer e.) ☐ Yes ☒ No

e. USDOT Shipping Description (if applicable): MATERIAL NOT REGULATED BY D.O.T.

3. SAFETY REQUIREMENTS (Handling, PPE, etc.): LEVEL D



Generator's Nonhazardous Waste Profile Sheet

D. Regulatory Status (Please check appropriate responses)

1. Is this a USEPA (40 CFR Part 261)/State hazardous waste? If yes, contact your sales representative. ☐ Yes ☒ No
2. Is this waste included in one or more of categories below (Check all that apply)? If yes, attach supporting documentation. ☐ Yes ☒ No
- ☐ Delisted Hazardous Waste ☐ Excluded Wastes Under 40 CFR 261.4
- ☐ Treated Hazardous Waste Debris ☐ Treated Characteristic Hazardous Waste
3. Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated clean-up? If yes, see instructions. ☐ Yes ☒ No
4. Does the waste represented by this waste profile sheet contain radioactive material? ☐ Yes ☒ No
- a. If yes, is disposal regulated by the Nuclear Regulatory Commission? ☐ Yes ☐ No
- b. If yes, is disposal regulated by a State Agency for radioactive waste/NORM? ☐ Yes ☐ No
5. Does the waste represented by this waste profile sheet contain concentrations of regulated Polychlorinated Biphenyls (PCBs)? ☒ Yes ☐ No
- a. If yes, is disposal regulated under TSCA? ☐ Yes ☒ No
6. Does the waste contain untreated, regulated, medical or infectious waste? ☐ Yes ☒ No
7. Does the waste contain asbestos? ☐ Yes ☒ No If Yes, ☐ Friable ☐ Non Friable
8. Is this profile for remediation waste from a facility that is a major source of Hazardous Air Pollutants (Site Remediation NESHA, 40 CFR 63 subpart GGGGG)? ☐ Yes ☒ No
- If yes, does the waste contain <500 ppmw VOHAPs at the point of determination? ☐ Yes ☐ No

E. Generator Certification (Please read and certify by signature below)

By signing this Generator's Waste Profile Sheet, I hereby certify that all:

- Information submitted in this profile and all attached documents contain true and accurate descriptions of the waste material;
 - Relevant information within the possession of the Generator regarding known or suspected hazards pertaining to this waste has been disclosed to WM/the Contractor;
 - Analytical data attached pertaining to the profiled waste was derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules; and
 - Changes that occur in the character of the waste (i.e. changes in the process or new analytical) will be identified by the Generator and disclosed to WM (and the Contractor if applicable) prior to providing the waste to WM (and the Contractor if applicable).
5. Check all that apply:
- ☒ Attached analytical pertains to the waste. Identify laboratory & sample ID #'s and parameters tested:
DRO, TCLP BENZENE, PCB'S, TCP METALS # Pages: 21
- ☐ Only the analyses identified on the attachment pertain to the waste (identify by laboratory & sample ID #'s and parameters tested).
Attachment #: _____
- ☐ Additional information necessary to characterize the profiled waste has been attached (other than analytical).
Indicate the number of attached pages: _____
- ☒ I am an agent signing on behalf of the Generator, and the delegation of authority to me from the Generator for this signature is available upon request.
- ☐ By Generator process knowledge, the following waste is not a listed waste and is below all TCLP regulatory limits.

Certification Signature: Tyler A. Ellingboe Title: Sr. Waste Specialist/Project Manager

Company Name: Bristol Environmental Remediation Name (Print): Tyler Ellingboe

Date: 8/19/09

FOR WM USE ONLY

Management Method: ☐ Landfill ☐ Bioremediation ☐ Non-hazardous solidification ☐ Other: _____

Approval Decision: ☐ Approved ☐ Not Approved

Waste Approval Expiration Date: _____

Management Facility Precautions, Special Handling Procedures or Limitation on approval:

☐ Shall not contain free liquid

☐ Shipment must be scheduled into disposal facility

☐ Approval Number must accompany each shipment

☐ Waste Manifest must accompany load

WM Authorization Name / Title: _____ Date: _____

State Authorization (if Required): _____ Date: _____

14827

Molly Welker
Bristol Env. Remediation Services LLC
111 W 16th Ave
Suite 301
Anchorage, AK 99501

Job Number: 580-14827-1
Lab Sample Id: 580-14827-1
Client Matrix: Solid
Date Sampled: 08/01/2009 0845
Date Received: 08/07/2009 0910
% Moisture: 31.1

Client Sample ID: 09NC007BWO1

Client Sample ID: 09NC007/BWV01				Action Limit						
Analyte	Result/Qualifier	Unit	RL	Method	Lower	Upper	Date Prepared	Date Analyzed	Dilution	
GC SEMI VOA										
PCB-1016	ND	mg/Kg	0.0046	8082	-	-	08/10/2009 1335	08/14/2009 0208	1.0	
PCB-1221	ND	mg/Kg	0.011	8082	-	-	08/10/2009 1335	08/14/2009 0208	1.0	
PCB-1232	ND	mg/Kg	0.010	8082	-	-	08/10/2009 1335	08/14/2009 0208	1.0	
PCB-1242	ND	mg/Kg	0.0030	8082	-	-	08/10/2009 1335	08/14/2009 0208	1.0	
PCB-1248	ND	mg/Kg	0.0019	8082	-	-	08/10/2009 1335	08/14/2009 0208	1.0	
PCB-1254	ND	mg/Kg	0.0030	8082	-	-	08/10/2009 1335	08/14/2009 0208	1.0	
PCB-1260	0.33	mg/Kg	0.014	8082	-	-	08/10/2009 1335	08/14/2009 0208	1.0	

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Anchorage, AK 99501

Job Number: 580-14827-1
Lab Sample Id: 580-14827-2
Client Matrix: Solid
Date Sampled: 08/01/2009 1100
Date Received: 08/07/2009 0910
% Moisture: 26.0

Client Sample ID: 09NC007BWO2

Client Sample ID: 09NC007/BWO2

Analyte	Result/Qualifier	Unit	RL	Method	Action Limit		Date Prepared	Date Analyzed	Dilution
					Lower	Upper			
GC SEMI VOA									
PCB-1016	ND	mg/Kg	0.0043	8082	-	-	08/10/2009 1335	08/14/2009 0254	1.0
PCB-1221	ND	mg/Kg	0.011	8082	-	-	08/10/2009 1335	08/14/2009 0254	1.0
PCB-1232	ND	mg/Kg	0.0094	8082	-	-	08/10/2009 1335	08/14/2009 0254	1.0
PCB-1242	ND	mg/Kg	0.0028	8082	-	-	08/10/2009 1335	08/14/2009 0254	1.0
PCB-1248	ND	mg/Kg	0.0018	8082	-	-	08/10/2009 1335	08/14/2009 0254	1.0
PCB-1254	1.0	mg/Kg	0.013	8082	-	-	08/10/2009 1335	08/14/2009 0254	1.0
PCB-1260	ND	mg/Kg	0.0040	8082	-	-	08/10/2009 1335	08/14/2009 0254	1.0

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Suite 301
Anchorage, AK 99501

Job Number: 580-14827-1
Lab Sample Id: 580-14827-3
Client Matrix: Solid
Date Sampled: 08/01/2009 1115
Date Received: 08/07/2009 0910
% Moisture: 24.8

Client Sample ID: 09NC007BWO3

Client Sample ID: 09NC007/BWO3				Action Limit							
Analyte	Result/Qualifier	Unit	RL	Method	Lower	Upper	Date Prepared	Date Analyzed	Dilution		
GC SEMI VOA											
PCB-1016	ND	mg/Kg	0.0042	8082	-	-	08/10/2009 1335	08/14/2009 0310	1.0		
PCB-1221	ND	mg/Kg	0.010	8082	-	-	08/10/2009 1335	08/14/2009 0310	1.0		
PCB-1232	ND	mg/Kg	0.0091	8082	-	-	08/10/2009 1335	08/14/2009 0310	1.0		
PCB-1242	ND	mg/Kg	0.0027	8082	-	-	08/10/2009 1335	08/14/2009 0310	1.0		
PCB-1248	ND	mg/Kg	0.0017	8082	-	-	08/10/2009 1335	08/14/2009 0310	1.0		
PCB-1254	ND	mg/Kg	0.0027	8082	-	-	08/10/2009 1335	08/14/2009 0310	1.0		
PCB-1260	0.054	mg/Kg	0.013	8082	-	-	08/10/2009 1335	08/14/2009 0310	1.0		

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Bristol Env. Remediation Services LLC
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Suite 301
Anchorage, AK 99501

Job Number: 580-14827-1
Lab Sample Id: 580-14827-4
Client Matrix: Solid
Date Sampled: 08/01/2009 1130
Date Received: 08/07/2009 0910
% Moisture: 24.8

Client Sample ID: 09NC007BWO4

Client Sample ID: 09NC007/BW04				Action Limit						
Analyte	Result/Qualifier	Unit	RL	Method	Lower	Upper	Date Prepared	Date Analyzed	Dilution	
GC SEMI VOA										
PCB-1016	ND	mg/Kg	0.0039	8082	-	-	08/10/2009 1335	08/14/2009 0325	1.0	
PCB-1221	ND	mg/Kg	0.0098	8082	-	-	08/10/2009 1335	08/14/2009 0325	1.0	
PCB-1232	ND	mg/Kg	0.0086	8082	-	-	08/10/2009 1335	08/14/2009 0325	1.0	
PCB-1242	ND	mg/Kg	0.0026	8082	-	-	08/10/2009 1335	08/14/2009 0325	1.0	
PCB-1248	ND	mg/Kg	0.0016	8082	-	-	08/10/2009 1335	08/14/2009 0325	1.0	
PCB-1254	ND	mg/Kg	0.0026	8082	-	-	08/10/2009 1335	08/14/2009 0325	1.0	
PCB-1260	0.034	mg/Kg	0.012	8082	-	-	08/10/2009 1335	08/14/2009 0325	1.0	

Molly Welker
Bristol Env. Remediation Services LLC
111 W 16th Ave
Suite 301
Anchorage, AK 99501

Job Number: 580-14827-1
Lab Sample Id: 580-14827-5
Client Matrix: Solid
Date Sampled: 08/01/2009 1315
Date Received: 08/07/2009 0910
% Moisture: 25.2

Client Sample ID: 09NC007BWO5

Client Sample ID: 09NC007BWO5

Analyte	Result/Qualifier	Unit	RL	Method	Action Limit		Date Prepared	Date Analyzed	Dilution
					Lower	Upper			
GC SEMI VOA									
PCB-1016	ND	mg/Kg	0.0040	8082	-	-	08/10/2009 1335	08/14/2009 0341	1.0
PCB-1221	ND	mg/Kg	0.010	8082	-	-	08/10/2009 1335	08/14/2009 0341	1.0
PCB-1232	ND	mg/Kg	0.0088	8082	-	-	08/10/2009 1335	08/14/2009 0341	1.0
PCB-1242	ND	mg/Kg	0.0026	8082	-	-	08/10/2009 1335	08/14/2009 0341	1.0
PCB-1248	ND	mg/Kg	0.0016	8082	-	-	08/10/2009 1335	08/14/2009 0341	1.0
PCB-1254	ND	mg/Kg	0.0026	8082	-	-	08/10/2009 1335	08/14/2009 0341	1.0
PCB-1260	0.11	mg/Kg	0.013	8082	-	-	08/10/2009 1335	08/14/2009 0341	1.0

Molly Welker
Bristol Env. Remediation Services LLC
111 W 16th Ave
Suite 301
Anchorage, AK 99501

Job Number: 580-14827-1
Lab Sample Id: 580-14827-6
Client Matrix: Solid
Date Sampled: 08/01/2009 1330
Date Received: 08/07/2009 0910
% Moisture: 23.6

Client Sample ID: 09NC007BWO6

Client Sample ID: 09NC007/BWO6

Analyte	Result/Qualifier	Unit	RL	Method	Action Limit		Date Prepared	Date Analyzed	Dilution
					Lower	Upper			
GC SEMI VOA									
PCB-1016	ND	mg/Kg	0.0040	8082	-	-	08/10/2009 1335	08/14/2009 0356	1.0
PCB-1221	ND	mg/Kg	0.0099	8082	-	-	08/10/2009 1335	08/14/2009 0356	1.0
PCB-1232	ND	mg/Kg	0.0087	8082	-	-	08/10/2009 1335	08/14/2009 0356	1.0
PCB-1242	ND	mg/Kg	0.0026	8082	-	-	08/10/2009 1335	08/14/2009 0356	1.0
PCB-1248	ND	mg/Kg	0.0016	8082	-	-	08/10/2009 1335	08/14/2009 0356	1.0
PCB-1254	ND	mg/Kg	0.0026	8082	-	-	08/10/2009 1335	08/14/2009 0356	1.0
PCB-1260	0.067	mg/Kg	0.012	8082	-	-	08/10/2009 1335	08/14/2009 0356	1.0

Molly Welker
Bristol Env. Remediation Services LLC
111 W 16th Ave
Suite 301
Anchorage, AK 99501

Job Number: 580-14827-1
Lab Sample Id: 580-14827-7
Client Matrix: Solid
Date Sampled: 08/04/2009 1700
Date Received: 08/07/2009 0910
% Moisture: 30.7

Client Sample ID: 09NC007BWO7

Client Sample ID: 09NC007/BWO7				Action Limit					
Analyte	Result/Qualifier	Unit	RL	Method	Lower	Upper	Date Prepared	Date Analyzed	Dilution
GC SEMI VOA									
PCB-1016	ND	mg/Kg	0.0045	8082	-	-	08/10/2009 1335	08/14/2009 0412	1.0
PCB-1221	ND	mg/Kg	0.011	8082	-	-	08/10/2009 1335	08/14/2009 0412	1.0
PCB-1232	ND	mg/Kg	0.0098	8082	-	-	08/10/2009 1335	08/14/2009 0412	1.0
PCB-1242	ND	mg/Kg	0.0030	8082	-	-	08/10/2009 1335	08/14/2009 0412	1.0
PCB-1248	ND	mg/Kg	0.0018	8082	-	-	08/10/2009 1335	08/14/2009 0412	1.0
PCB-1254	0.41	mg/Kg	0.014	8082	-	-	08/10/2009 1335	08/14/2009 0412	1.0
PCB-1260	ND	mg/Kg	0.0042	8082	-	-	08/10/2009 1335	08/14/2009 0412	1.0

Molly Welker
Bristol Env. Remediation Services LLC
111 W 16th Ave
Suite 301
Anchorage, AK 99501

Job Number: 580-14827-1
Lab Sample Id: 580-14827-8
Client Matrix: Solid
Date Sampled: 08/04/2009 1730
Date Received: 08/07/2009 0910
% Moisture: 28.6

Client Sample ID: 09NC007BWO8

Client Sample ID: 09NC007BWO8				Action Limit							
Analyte	Result/Qualifier	Unit	RL	Method	Lower	Upper	Date Prepared		Date Analyzed		Dilution
GC SEMI VOA											
PCB-1016	ND	mg/Kg	0.0043	8082	-	-	08/10/2009 1335		08/14/2009 0427		1.0
PCB-1221	ND	mg/Kg	0.011	8082	-	-	08/10/2009 1335		08/14/2009 0427		1.0
PCB-1232	ND	mg/Kg	0.0095	8082	-	-	08/10/2009 1335		08/14/2009 0427		1.0
PCB-1242	ND	mg/Kg	0.0028	8082	-	-	08/10/2009 1335		08/14/2009 0427		1.0
PCB-1248	ND	mg/Kg	0.0018	8082	-	-	08/10/2009 1335		08/14/2009 0427		1.0
PCB-1254	0.091	mg/Kg	0.014	8082	-	-	08/10/2009 1335		08/14/2009 0427		1.0
PCB-1260	ND	mg/Kg	0.0041	8082	-	-	08/10/2009 1335		08/14/2009 0427		1.0

Sample ID	Location	Depth (ft)	Parameter	Result	Unit	Qualifier
580-14827-1	09NC007BWO1	808Z	PCB-1016	ND	mg/Kg	
580-14827-1	09NC007BWO1	808Z	PCB-1221	ND	mg/Kg	
580-14827-1	09NC007BWO1	808Z	PCB-1232	ND	mg/Kg	
580-14827-1	09NC007BWO1	808Z	PCB-1242	ND	mg/Kg	
580-14827-1	09NC007BWO1	808Z	PCB-1248	ND	mg/Kg	
580-14827-1	09NC007BWO1	808Z	PCB-1254	0.36	mg/Kg	
580-14827-1	09NC007BWO1	808Z	PCB-1260	0.38	mg/Kg	
580-14827-1	09NC007BWO1	AK10Z & 103	DRO (nC10-<nC25)	1300	mg/Kg	
580-14827-1	09NC007BWO1	6010B	Lead	1.4	mg/L	
580-14827-1	09NC007BWO1	6010B	Cadmium	0.016	mg/L	
580-14827-1	09NC007BWO1	6010B	Barium	0.54	mg/L	
580-14827-1	09NC007BWO1	6010B	Silver	ND	mg/L	
580-14827-1	09NC007BWO1	6010B	Arsenic	ND	mg/L	
580-14827-1	09NC007BWO1	6010B	Selenium	ND	mg/L	
580-14827-1	09NC007BWO1	6010B	Chromium	0.0053	mg/L	J
580-14827-1	09NC007BWO1	7470A	Mercury	0.00049	mg/L	J
580-14827-1	09NC007BWO1	8260B	Benzene	ND	ug/L	
580-14827-1	09NC007BWO1	Moisture	Percent Solids	69	%	
580-14827-1	09NC007BWO1	Moisture	Percent Moisture	31	%	
580-14827-2	09NC007BWO2	808Z	PCB-1016	ND	mg/Kg	
580-14827-2	09NC007BWO2	808Z	PCB-1221	ND	mg/Kg	
580-14827-2	09NC007BWO2	808Z	PCB-1232	ND	mg/Kg	
580-14827-2	09NC007BWO2	808Z	PCB-1242	ND	mg/Kg	
580-14827-2	09NC007BWO2	808Z	PCB-1248	ND	mg/Kg	
580-14827-2	09NC007BWO2	808Z	PCB-1254	1.0	mg/Kg	
580-14827-2	09NC007BWO2	808Z	PCB-1260	0.35	mg/Kg	
580-14827-2	09NC007BWO2	AK10Z & 103	DRO (nC10-<nC25)	11000	mg/Kg	
580-14827-2	09NC007BWO2	6010B	Lead	0.19	mg/L	
580-14827-2	09NC007BWO2	6010B	Cadmium	0.017	mg/L	
580-14827-2	09NC007BWO2	6010B	Barium	0.56	mg/L	
580-14827-2	09NC007BWO2	6010B	Silver	ND	mg/L	
580-14827-2	09NC007BWO2	6010B	Arsenic	0.0052	mg/L	J
580-14827-2	09NC007BWO2	6010B	Selenium	ND	mg/L	
580-14827-2	09NC007BWO2	6010B	Chromium	0.0044	mg/L	J
580-14827-2	09NC007BWO2	7470A	Mercury	ND	mg/L	
580-14827-2	09NC007BWO2	8260B	Benzene	ND	ug/L	
580-14827-2	09NC007BWO2	Moisture	Percent Solids	74	%	
580-14827-2	09NC007BWO2	Moisture	Percent Moisture	26	%	
580-14827-3	09NC007BWO3	808Z	PCB-1016	ND	mg/Kg	
580-14827-3	09NC007BWO3	808Z	PCB-1221	ND	mg/Kg	
580-14827-3	09NC007BWO3	808Z	PCB-1232	ND	mg/Kg	
580-14827-3	09NC007BWO3	808Z	PCB-1242	ND	mg/Kg	
580-14827-3	09NC007BWO3	808Z	PCB-1248	ND	mg/Kg	
580-14827-3	09NC007BWO3	808Z	PCB-1254	0.033	mg/Kg	
580-14827-3	09NC007BWO3	808Z	PCB-1260	0.059	mg/Kg	
580-14827-3	09NC007BWO3	AK10Z & 103	DRO (nC10-<nC25)	4400	mg/Kg	
580-14827-3	09NC007BWO3	6010B	Lead	ND	mg/L	

580-14827-3	09NC007BWO3	6010B	Cadmium	0.0051	mg/L	J
580-14827-3	09NC007BWO3	6010B	Barium	0.51	mg/L	
580-14827-3	09NC007BWO3	6010B	Silver	ND	mg/L	
580-14827-3	09NC007BWO3	6010B	Arsenic	ND	mg/L	
580-14827-3	09NC007BWO3	6010B	Selenium	0.0064	mg/L	J
580-14827-3	09NC007BWO3	6010B	Chromium	0.0040	mg/L	J
580-14827-3	09NC007BWO3	7470A	Mercury	ND	mg/L	
580-14827-3	09NC007BWO3	8260B	Benzene	ND	ug/L	
580-14827-3	09NC007BWO3	Moisture	Percent Solids	75	%	
580-14827-3	09NC007BWO3	Moisture	Percent Moisture	25	%	
580-14827-4	09NC007BWO4	8082	PCB-1016	ND	mg/Kg	
580-14827-4	09NC007BWO4	8082	PCB-1221	ND	mg/Kg	
580-14827-4	09NC007BWO4	8082	PCB-1232	ND	mg/Kg	
580-14827-4	09NC007BWO4	8082	PCB-1242	ND	mg/Kg	
580-14827-4	09NC007BWO4	8082	PCB-1248	ND	mg/Kg	
580-14827-4	09NC007BWO4	8082	PCB-1254	ND	mg/Kg	
580-14827-4	09NC007BWO4	8082	PCB-1260	0.032	mg/Kg	
580-14827-4	09NC007BWO4	AK102 & 103	DRO (nC10-<nC25)	3200	mg/Kg	
580-14827-4	09NC007BWO4	6010B	Lead	ND	mg/L	
580-14827-4	09NC007BWO4	6010B	Cadmium	0.0049	mg/L	J
580-14827-4	09NC007BWO4	6010B	Barium	0.55	mg/L	
580-14827-4	09NC007BWO4	6010B	Silver	ND	mg/L	
580-14827-4	09NC007BWO4	6010B	Arsenic	ND	mg/L	
580-14827-4	09NC007BWO4	6010B	Selenium	ND	mg/L	
580-14827-4	09NC007BWO4	6010B	Chromium	0.0039	mg/L	J
580-14827-4	09NC007BWO4	7470A	Mercury	ND	mg/L	
580-14827-4	09NC007BWO4	8260B	Benzene	ND	ug/L	
580-14827-4	09NC007BWO4	Moisture	Percent Solids	75	%	
580-14827-4	09NC007BWO4	Moisture	Percent Moisture	25	%	
580-14827-5	09NC007BWO5	8082	PCB-1016	ND	mg/Kg	
580-14827-5	09NC007BWO5	8082	PCB-1221	ND	mg/Kg	
580-14827-5	09NC007BWO5	8082	PCB-1232	ND	mg/Kg	
580-14827-5	09NC007BWO5	8082	PCB-1242	ND	mg/Kg	
580-14827-5	09NC007BWO5	8082	PCB-1248	ND	mg/Kg	
580-14827-5	09NC007BWO5	8082	PCB-1254	ND	mg/Kg	
580-14827-5	09NC007BWO5	8082	PCB-1260	0.11	mg/Kg	
580-14827-5	09NC007BWO5	AK102 & 103	DRO (nC10-<nC25)	2500	mg/Kg	
580-14827-5	09NC007BWO5	6010B	Lead	ND	mg/L	
580-14827-5	09NC007BWO5	6010B	Cadmium	0.031	mg/L	
580-14827-5	09NC007BWO5	6010B	Barium	0.53	mg/L	
580-14827-5	09NC007BWO5	6010B	Silver	ND	mg/L	
580-14827-5	09NC007BWO5	6010B	Arsenic	ND	mg/L	
580-14827-5	09NC007BWO5	6010B	Selenium	ND	mg/L	
580-14827-5	09NC007BWO5	6010B	Chromium	0.0039	mg/L	J
580-14827-5	09NC007BWO5	7470A	Mercury	ND	mg/L	
580-14827-5	09NC007BWO5	8260B	Benzene	ND	ug/L	
580-14827-5	09NC007BWO5	Moisture	Percent Solids	75	%	
580-14827-5	09NC007BWO5	Moisture	Percent Moisture	25	%	

580-14827-6	09NC007BWO6	8082	PCB-1016	ND	mg/Kg	
580-14827-6	09NC007BWO6	8082	PCB-1221	ND	mg/Kg	
580-14827-6	09NC007BWO6	8082	PCB-1232	ND	mg/Kg	
580-14827-6	09NC007BWO6	8082	PCB-1242	ND	mg/Kg	
580-14827-6	09NC007BWO6	8082	PCB-1248	ND	mg/Kg	
580-14827-6	09NC007BWO6	8082	PCB-1254	ND	mg/Kg	
580-14827-6	09NC007BWO6	8082	PCB-1260	0.067	mg/Kg	
580-14827-6	09NC007BWO6	AK102 & 103	DRO (nC10-<nC25)	4000	mg/Kg	
580-14827-6	09NC007BWO6	6010B	Lead	ND	mg/L	
580-14827-6	09NC007BWO6	6010B	Cadmium	0.0037	mg/L	J
580-14827-6	09NC007BWO6	6010B	Barium	0.47	mg/L	
580-14827-6	09NC007BWO6	6010B	Silver	ND	mg/L	
580-14827-6	09NC007BWO6	6010B	Arsenic	ND	mg/L	
580-14827-6	09NC007BWO6	6010B	Selenium	ND	mg/L	
580-14827-6	09NC007BWO6	6010B	Chromium	ND	mg/L	
580-14827-6	09NC007BWO6	7470A	Mercury	ND	mg/L	
580-14827-6	09NC007BWO6	8260B	Benzene	ND	ug/L	
580-14827-6	09NC007BWO6	Moisture	Percent Solids	76	%	
580-14827-6	09NC007BWO6	Moisture	Percent Moisture	24	%	
580-14827-7	09NC007BWO7	8082	PCB-1016	ND	mg/Kg	
580-14827-7	09NC007BWO7	8082	PCB-1221	ND	mg/Kg	
580-14827-7	09NC007BWO7	8082	PCB-1232	ND	mg/Kg	
580-14827-7	09NC007BWO7	8082	PCB-1242	ND	mg/Kg	
580-14827-7	09NC007BWO7	8082	PCB-1248	ND	mg/Kg	
580-14827-7	09NC007BWO7	8082	PCB-1254	0.40	mg/Kg	
580-14827-7	09NC007BWO7	8082	PCB-1260	0.16	mg/Kg	
580-14827-7	09NC007BWO7	AK102 & 103	DRO (nC10-<nC25)	9200	mg/Kg	
580-14827-7	09NC007BWO7	6010B	Lead	0.14	mg/L	
580-14827-7	09NC007BWO7	6010B	Cadmium	0.019	mg/L	
580-14827-7	09NC007BWO7	6010B	Barium	0.54	mg/L	
580-14827-7	09NC007BWO7	6010B	Silver	ND	mg/L	
580-14827-7	09NC007BWO7	6010B	Arsenic	ND	mg/L	
580-14827-7	09NC007BWO7	6010B	Selenium	ND	mg/L	
580-14827-7	09NC007BWO7	6010B	Chromium	ND	mg/L	
580-14827-7	09NC007BWO7	7470A	Mercury	0.00049	mg/L	J
580-14827-7	09NC007BWO7	8260B	Benzene	ND	ug/L	
580-14827-7	09NC007BWO7	Moisture	Percent Solids	69	%	
580-14827-7	09NC007BWO7	Moisture	Percent Moisture	31	%	
580-14827-8	09NC007BWO8	8082	PCB-1016	ND	mg/Kg	
580-14827-8	09NC007BWO8	8082	PCB-1221	ND	mg/Kg	
580-14827-8	09NC007BWO8	8082	PCB-1232	ND	mg/Kg	
580-14827-8	09NC007BWO8	8082	PCB-1242	ND	mg/Kg	
580-14827-8	09NC007BWO8	8082	PCB-1248	ND	mg/Kg	
580-14827-8	09NC007BWO8	8082	PCB-1254	ND	mg/Kg	
580-14827-8	09NC007BWO8	8082	PCB-1260	0.043	mg/Kg	
580-14827-8	09NC007BWO8	AK102 & 103	DRO (nC10-<nC25)	8600	mg/Kg	
580-14827-8	09NC007BWO8	6010B	Lead	0.44	mg/L	
580-14827-8	09NC007BWO8	6010B	Cadmium	0.0099	mg/L	J

580-14827-8	09NC007BWO8	6010B	Barium	0.66	mg/L	
580-14827-8	09NC007BWO8	6010B	Silver	ND	mg/L	
580-14827-8	09NC007BWO8	6010B	Arsenic	ND	mg/L	
580-14827-8	09NC007BWO8	6010B	Selenium	0.0076	mg/L	J
580-14827-8	09NC007BWO8	6010B	Chromium	ND	mg/L	
580-14827-8	09NC007BWO8	7470A	Mercury	ND	mg/L	
580-14827-8	09NC007BWO8	8260B	Benzene	ND	ug/L	
580-14827-8	09NC007BWO8	Moisture	Percent Solids	71	%	
580-14827-8	09NC007BWO8	Moisture	Percent Moisture	29	%	

0.0046	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 2:55 PM
0.011	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 2:55 PM
0.010	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 2:55 PM
0.0030	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 2:55 PM
0.0019	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 2:55 PM
0.0030	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 2:55 PM
0.0043	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 2:55 PM
16	MDL	5	48123	8/10/2009 12:52 PM	8/12/2009 4:15 PM
0.0017	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:01 PM
0.0015	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:01 PM
0.00035	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:01 PM
0.00085	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:01 PM
0.0047	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:01 PM
0.0020	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:01 PM
0.0033	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:01 PM
0.00041	MDL	1.0	48099	8/11/2009 11:39 AM	8/11/2009 3:58 PM
5.7	MDL	100	48207	1/0/1900	8/13/2009 2:10 AM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
0.0043	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:41 PM
0.011	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:41 PM
0.0094	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:41 PM
0.0028	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:41 PM
0.0018	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:41 PM
0.0028	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:41 PM
0.0040	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:41 PM
14	MDL	5	48123	8/10/2009 12:52 PM	8/12/2009 11:37 AM
0.0017	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:47 PM
0.0015	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:47 PM
0.00035	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:47 PM
0.00085	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:47 PM
0.0047	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:47 PM
0.0020	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:47 PM
0.0033	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:47 PM
0.00041	MDL	1.0	48099	8/11/2009 11:39 AM	8/11/2009 4:15 PM
5.7	MDL	100	48207	1/0/1900	8/13/2009 2:34 AM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
0.0042	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:56 PM
0.010	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:56 PM
0.0091	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:56 PM
0.0027	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:56 PM
0.0017	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:56 PM
0.0027	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:56 PM
0.0039	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 3:56 PM
15	MDL	5	48123	8/10/2009 12:52 PM	8/12/2009 9:38 AM
0.0017	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:52 PM

0.0015	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:52 PM
0.00035	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:52 PM
0.00085	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:52 PM
0.0047	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:52 PM
0.0020	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:52 PM
0.0033	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:52 PM
0.00041	MDL	1.0	48099	8/11/2009 11:39 AM	8/11/2009 4:19 PM
5.7	MDL	100	48207	1/0/1900	8/13/2009 2:59 AM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
0.0039	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:12 PM
0.0098	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:12 PM
0.0086	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:12 PM
0.0026	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:12 PM
0.0016	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:12 PM
0.0026	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:12 PM
0.0037	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:12 PM
15	MDL	5	48123	8/10/2009 12:52 PM	8/12/2009 9:58 AM
0.0017	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:56 PM
0.0015	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:56 PM
0.00035	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:56 PM
0.00085	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:56 PM
0.0047	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:56 PM
0.0020	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:56 PM
0.0033	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 6:56 PM
0.00041	MDL	1.0	48099	8/11/2009 11:39 AM	8/11/2009 4:32 PM
5.7	MDL	100	48207	1/0/1900	8/13/2009 3:23 AM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
0.0040	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:27 PM
0.010	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:27 PM
0.0088	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:27 PM
0.0026	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:27 PM
0.0016	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:27 PM
0.0026	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:27 PM
0.0038	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:27 PM
15	MDL	5	48123	8/10/2009 12:52 PM	8/12/2009 10:18 AM
0.0017	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:00 PM
0.0015	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:00 PM
0.00035	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:00 PM
0.00085	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:00 PM
0.0047	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:00 PM
0.0020	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:00 PM
0.0033	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:00 PM
0.00041	MDL	1.0	48099	8/11/2009 11:39 AM	8/11/2009 4:36 PM
5.7	MDL	100	48207	1/0/1900	8/13/2009 3:47 AM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM

0.0040	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:43 PM
0.0099	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:43 PM
0.0087	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:43 PM
0.0026	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:43 PM
0.0016	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:43 PM
0.0026	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:43 PM
0.0037	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:43 PM
14	MDL	5	48123	8/10/2009 12:52 PM	8/12/2009 10:38 AM
0.0017	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:05 PM
0.0015	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:05 PM
0.00035	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:05 PM
0.00085	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:05 PM
0.0047	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:05 PM
0.0020	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:05 PM
0.0033	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:05 PM
0.00041	MDL	1.0	48099	8/11/2009 11:39 AM	8/11/2009 4:41 PM
5.7	MDL	100	48207	1/0/1900	8/13/2009 4:12 AM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
0.0045	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:58 PM
0.011	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:58 PM
0.0098	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:58 PM
0.0030	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:58 PM
0.0018	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:58 PM
0.0030	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:58 PM
0.0042	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 4:58 PM
16	MDL	5	48123	8/10/2009 12:52 PM	8/12/2009 10:58 AM
0.0017	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:09 PM
0.0015	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:09 PM
0.00035	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:09 PM
0.00085	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:09 PM
0.0047	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:09 PM
0.0020	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:09 PM
0.0033	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:09 PM
0.00041	MDL	1.0	48099	8/11/2009 11:39 AM	8/11/2009 4:45 PM
5.7	MDL	100	48207	1/0/1900	8/13/2009 4:37 AM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
	MDL	1.0	47982	1/0/1900	8/10/2009 12:58 PM
0.0043	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 5:14 PM
0.011	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 5:14 PM
0.0095	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 5:14 PM
0.0028	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 5:14 PM
0.0018	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 5:14 PM
0.0028	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 5:14 PM
0.0041	MDL	1	48409	8/10/2009 1:35 PM	8/17/2009 5:14 PM
16	MDL	5	48123	8/10/2009 12:52 PM	8/12/2009 11:18 AM
0.0017	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:13 PM
0.0015	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:13 PM

0.00035	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:13 PM
0.00085	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:13 PM
0.0047	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:13 PM
0.0020	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:13 PM
0.0033	MDL	1.0	48127	8/11/2009 12:16 PM	8/11/2009 7:13 PM
0.00041	MDL	1.0	48099	8/11/2009 11:39 AM	8/11/2009 4:50 PM
5.7	MDL	100	48207	17/07/1900	8/13/2009 5:01 AM
	MDL	1.0	47982	17/07/1900	8/10/2009 12:58 PM
	MDL	1.0	47982	17/07/1900	8/10/2009 12:58 PM

ANALYSIS	SHIP ID	LAB
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-001-0001-00003	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-001-0001-00009	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-001-0001-00015	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-001-0001-00021	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-001-0001-00027	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-001-0001-00033	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-001-0001-00039	Seattle/Tacoma Laboratory
Alaska - Diesel Range Organics & Residual Range Organics (GC)	0014827-001-0017-00003	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-001-0033-00001	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-001-0033-00002	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-001-0033-00010	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-001-0033-00019	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-001-0033-00022	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-001-0033-00033	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-001-0033-00036	Seattle/Tacoma Laboratory
Mercury (CVAA)	0014827-001-0036-00001	Seattle/Tacoma Laboratory
Volatile Organic Compounds (GC/MS)	0014827-001-0039-00006	Seattle/Tacoma Laboratory
Percent Moisture	0014827-001-0105-00001	Seattle/Tacoma Laboratory
Percent Moisture	0014827-001-0105-00002	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-002-0003-00003	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-002-0003-00009	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-002-0003-00015	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-002-0003-00021	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-002-0003-00027	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-002-0003-00033	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-002-0003-00039	Seattle/Tacoma Laboratory
Alaska - Diesel Range Organics & Residual Range Organics (GC)	0014827-002-0019-00003	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-002-0042-00001	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-002-0042-00002	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-002-0042-00010	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-002-0042-00019	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-002-0042-00022	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-002-0042-00033	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-002-0042-00036	Seattle/Tacoma Laboratory
Mercury (CVAA)	0014827-002-0045-00001	Seattle/Tacoma Laboratory
Volatile Organic Compounds (GC/MS)	0014827-002-0048-00006	Seattle/Tacoma Laboratory
Percent Moisture	0014827-002-0106-00001	Seattle/Tacoma Laboratory
Percent Moisture	0014827-002-0106-00002	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-003-0005-00003	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-003-0005-00009	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-003-0005-00015	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-003-0005-00021	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-003-0005-00027	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-003-0005-00033	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-003-0005-00039	Seattle/Tacoma Laboratory
Alaska - Diesel Range Organics & Residual Range Organics (GC)	0014827-003-0021-00003	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-003-0051-00001	Seattle/Tacoma Laboratory

Metals (ICP)	0014827-003-0051-00002	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-003-0051-00010	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-003-0051-00019	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-003-0051-00022	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-003-0051-00033	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-003-0051-00036	Seattle/Tacoma Laboratory
Mercury (CVAA)	0014827-003-0054-00001	Seattle/Tacoma Laboratory
Volatile Organic Compounds (GC/MS)	0014827-003-0057-00006	Seattle/Tacoma Laboratory
Percent Moisture	0014827-003-0107-00001	Seattle/Tacoma Laboratory
Percent Moisture	0014827-003-0107-00002	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-004-0007-00003	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-004-0007-00009	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-004-0007-00015	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-004-0007-00021	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-004-0007-00027	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-004-0007-00033	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-004-0007-00039	Seattle/Tacoma Laboratory
Alaska - Diesel Range Organics & Residual Range Organics (GC)	0014827-004-0023-00003	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-004-0060-00001	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-004-0060-00002	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-004-0060-00010	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-004-0060-00019	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-004-0060-00022	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-004-0060-00033	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-004-0060-00036	Seattle/Tacoma Laboratory
Mercury (CVAA)	0014827-004-0063-00001	Seattle/Tacoma Laboratory
Volatile Organic Compounds (GC/MS)	0014827-004-0066-00006	Seattle/Tacoma Laboratory
Percent Moisture	0014827-004-0108-00001	Seattle/Tacoma Laboratory
Percent Moisture	0014827-004-0108-00002	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-005-0009-00003	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-005-0009-00009	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-005-0009-00015	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-005-0009-00021	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-005-0009-00027	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-005-0009-00033	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-005-0009-00039	Seattle/Tacoma Laboratory
Alaska - Diesel Range Organics & Residual Range Organics (GC)	0014827-005-0025-00003	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-005-0069-00001	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-005-0069-00002	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-005-0069-00010	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-005-0069-00019	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-005-0069-00022	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-005-0069-00033	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-005-0069-00036	Seattle/Tacoma Laboratory
Mercury (CVAA)	0014827-005-0072-00001	Seattle/Tacoma Laboratory
Volatile Organic Compounds (GC/MS)	0014827-005-0075-00006	Seattle/Tacoma Laboratory
Percent Moisture	0014827-005-0109-00001	Seattle/Tacoma Laboratory
Percent Moisture	0014827-005-0109-00002	Seattle/Tacoma Laboratory

Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-006-0011-00003	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-006-0011-00009	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-006-0011-00015	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-006-0011-00021	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-006-0011-00027	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-006-0011-00033	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-006-0011-00039	Seattle/Tacoma Laboratory
Alaska - Diesel Range Organics & Residual Range Organics (GC)	0014827-006-0027-00003	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-006-0078-00001	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-006-0078-00002	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-006-0078-00010	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-006-0078-00019	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-006-0078-00022	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-006-0078-00033	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-006-0078-00036	Seattle/Tacoma Laboratory
Mercury (CVAA)	0014827-006-0081-00001	Seattle/Tacoma Laboratory
Volatile Organic Compounds (GC/MS)	0014827-006-0084-00006	Seattle/Tacoma Laboratory
Percent Moisture	0014827-006-0110-00001	Seattle/Tacoma Laboratory
Percent Moisture	0014827-006-0110-00002	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-007-0013-00003	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-007-0013-00009	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-007-0013-00015	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-007-0013-00021	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-007-0013-00027	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-007-0013-00033	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-007-0013-00039	Seattle/Tacoma Laboratory
Alaska - Diesel Range Organics & Residual Range Organics (GC)	0014827-007-0029-00003	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-007-0087-00001	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-007-0087-00002	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-007-0087-00010	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-007-0087-00019	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-007-0087-00022	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-007-0087-00033	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-007-0087-00036	Seattle/Tacoma Laboratory
Mercury (CVAA)	0014827-007-0090-00001	Seattle/Tacoma Laboratory
Volatile Organic Compounds (GC/MS)	0014827-007-0093-00006	Seattle/Tacoma Laboratory
Percent Moisture	0014827-007-0111-00001	Seattle/Tacoma Laboratory
Percent Moisture	0014827-007-0111-00002	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-008-0015-00003	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-008-0015-00009	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-008-0015-00015	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-008-0015-00021	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-008-0015-00027	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-008-0015-00033	Seattle/Tacoma Laboratory
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	0014827-008-0015-00039	Seattle/Tacoma Laboratory
Alaska - Diesel Range Organics & Residual Range Organics (GC)	0014827-008-0031-00003	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-008-0096-00001	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-008-0096-00002	Seattle/Tacoma Laboratory

Metals (ICP)	0014827-008-0096-00010	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-008-0096-00019	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-008-0096-00022	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-008-0096-00033	Seattle/Tacoma Laboratory
Metals (ICP)	0014827-008-0096-00036	Seattle/Tacoma Laboratory
Mercury (CVAA)	0014827-008-0099-00001	Seattle/Tacoma Laboratory
Volatile Organic Compounds (GC/MS)	0014827-008-0102-00006	Seattle/Tacoma Laboratory
Percent Moisture	0014827-008-0112-00001	Seattle/Tacoma Laboratory
Percent Moisture	0014827-008-0112-00002	Seattle/Tacoma Laboratory

AK09834 (RP)

Form Approved, OMB No. 2050-0089

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Manifest Tracking Number
		000297801 FLE	000297801 FLE
5. Generator's Name and Mailing Address		6. Manifest Tracking Number	
AK0000228395		000297801 FLE	
US ARMY ENGINEER DISTRICT, ALASKA PO BOX 6898 ELMENDORF AFB, AK 99506-0898		U.S. ARMY USACE NORTHEAST CAPE KANGUKHSAN MT 52.25 MI ESE OF SA SAVOONER, AK 99769	
7. Transporter's Name and Mailing Address		U.S. EPA ID Number	
NORFLEND SERVICES, INC.		WAD981773005	
8. Designated Facility's Name and Mailing Address		U.S. EPA ID Number	
CLEAN HARBORS (ARAGONITE), LLC 11600 N. APTUS ROAD, EXIT 56 ARAGONITE, UT 84229		WAD058364647	
Facility's Phone		UTD981552177	
9a. HWM		9b. U.S. DOT Description and Packing Group (if any)	10. Containers
			11. Total Quantity
			12. Unit
			13. Waste Codes
UN3082, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CHLORINATED PARAFFINS, LEAD), 9, PG-III, RQ=LEAD, ERG#171		3 DM	1000 P
UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S. (METHANOL, DIESEL FUEL), 3, PG-II, RQ=F003, ERG#128 (Flashpoint > 11°C)		1 DF	10 P
UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S. (ETHANOL, OIL), 3, PG-III (FLASHPOINT > 23°C) ERG#128		2 DF	20 P
14. Special Handling Instructions and Additional Information			
a) CH388195 550M - USED OIL WITH C b) CH387559 550M - METHANOL AND DIE c) CH387559 550M - USED OIL WITH C			
15. Generator's Signature and Title			
Valerie Y Palmer			
16. International Shipments			
Import to U.S. Exports from U.S.			
17. Transporter's Acknowledgment of Receipt of Materials			
Transporter 1 Printed/Typed Name			
BRIAN EKSTRAND			
Transporter 2 Printed/Typed Name			
Linn Simin			
18. Discrepancy			
18a. Discrepancy Indication Space			
Quantity Type Residue Partial Rejection Full Rejection			
18b. Alternate Facility (or Generator)			
Facility's Phone			
18c. Signature of Alternate Facility (or Generator)			
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)			
1. H040 2. H040 3. H040 4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18b			
Printed/Typed Name			
Signature			
Month Day Year			
10/19/09			

Form Approved, OMB No. 2550-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)



Certificate of Disposal / Treatment - Storage and Transfer

Run Date: 1/5/2010

Manifested To Site: Aragonite, UT Facility
11600 North Aptus Road
Grantsville, UT 84029

EPA ID/Prov ID: UTD981552177

Manifest No.	Generation Date	Received Date
000297801FLE	8/19/2009	10/19/2009

The above described waste, received at the Clean Harbors facility listed above pursuant to the manifest(s) listed above, has/will be treated and/or disposed of by Clean Harbors, or another licensed facility approved by Clean Harbors, in accordance with applicable federal, state and provincial laws and regulations. Any waste received by Clean Harbors and subsequently shipped to another licensed facility has been or shall be identified as being generated by Clean Harbors in accordance with 40CFR 264.71(c).

For waste imported/exported to/from Canada the waste has/will be disposed or recycled according to the Canadian export and import of hazardous waste or hazardous recyclable material regulation as published in the Canadian Gazette Part II, vol 139, No 11, SOR/2005-149 May 17, 2005

Under civil and criminal penalties of law for the making of submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Signed: Paul A. Mello

Date: 1/5/2010

Title: Director Facility Applications

AK09834 (RP)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

000297802FLE

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number AK0000228395	2. Page 1 of 2	3. Emergency Response Phone 206-832-3000	4. Manifest Tracking Number 000297802 FLE		
5. Generator's Name and Mailing Address US ARMY ENGINEER DISTRICT, ALASKA PO BOX 6898 ELMENDORF AFB, AK 99506-0898 Generator's Phone: (907) 753-2689				Generator's Site Address (if different than mailing address) U.S. ARMY USACE NORTHEAST CAPE KANGUKHSAM MT 52.25 MI ESE OF SA SAVOONGA, AK 99769			
6. Transporter 1 Company Name NORTHLAND SERVICES, INC.				U.S. EPA ID Number WAD981773005			
7. Transporter 2 Company Name EMERALD SERVICES, INC.				U.S. EPA ID Number WAD058364647			
8. Designated Facility Name and Site Address US. ECOLOGY IDAHO, INC. 20400 LEMLEY RD GRAND VIEW, ID 83624 Facility's Phone: (800) 274-1516				U.S. EPA ID Number IDD073114654			
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt/Vol	13. Waste Codes
	X	1. RQ, UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (LEAD), 8, PG-III, RQ=0008, ERG#171	2	CF	4100	P	DQ08
	X	2. UN3432, R.Q. POLYCHLORINATED BIPHENYLS, SOLID, 9, PG-II (MARINE POLLUTANT), ERG#171	1	DM	91	K	
		3. MATERIAL NOT REGULATED BY D.O.T.	1	DM	400	P	
		4. MATERIAL NOT REGULATED BY D.O.T.	17	DM	8000	P	
14. Special Handling Instructions and Additional Information a) USE22443 BROKEN PIECES OF LEAD A b) USE15593 PCB LIGHT BALLAST c) USE22438 ASH d) USE22453 KITTY LITTER WITH OIL A 15. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator/Officer's Printed/Typed Name Valerie V Palmer		Signature Valerie V Palmer		Month Day Year 08/19/09			
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:				
	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name X BRIAN EKSTRAND Signature Brian Ekstrand Month Day Year 8/21/09						
	Transporter 2 Printed/Typed Name Tim Simon Signature Tim Simon Month Day Year 10/7/09						
DESIGNATED FACILITY	18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: 18b. Alternate Facility (or Generator) U.S. EPA ID Number: Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month Day Year						
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H132 2. H132 3. H132 4. H132						
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a Printed/Typed Name Brenda Johnson for USE1 Signature Brenda Johnson Month Day Year 10/9/09						
	DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)						
	EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.						

Please print or type. (Form designed for use on effie (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number AK0000228395	22. Page 2 / 2	23. Manifest Tracking Number 000297802ELE			
24. Generator's Name (907) 753-2689		U.S. ARMY USACE NORTHEAST CAPE KANGUKHSAM MT 52.25 MI ESE OF S SAVOONGA, AK 99769					
25. Transporter 3 Company Name STEVE FORLER TRUCKING		U.S. EPA ID Number WAR000001263					
26. Transporter 4 Company Name							
GENERATOR	27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No. Type		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
32. Special Handling Instructions and Additional Information							
TRANSPORTER	33. Transporter Acknowledgment of Receipt of Materials Printed/Typed Name		Signature		Month Day Year		
	Wm mamangke		Wm mamangke		1 / 4 8 09		
DESIGNATED FACILITY	34. Transporter Acknowledgment of Receipt of Materials Printed/Typed Name		Signature		Month Day Year		
35. Discrepancy							
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							

IN CASE OF EMERGENCY CALL 206 832 3000 ***

AKU9834 (RP)

NON-HAZARDOUS WASTE MANIFEST

Form designed for use on site (12 inch) typewriter

**HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.
AK0000228395

Manifest Document No. 9834A

2. Page 1 of 2

Name and Mailing Address
NORTH EAST CAPE
BOX 8898
EMMENDORF AFB, AK 99506 0898
Generator's Phone (907) 753-2689

3. Transporter 1 Company Name
NORTHLAND SERVICES, INC.

6. US EPA ID Number
WA0981773003

A. State Transporter's ID

B. Transporter 1 Phone (800) 428-3113

7. Transporter 2 Company Name
EMERALD SERVICES, INC.

8. US EPA ID Number
WA058364641

C. State Transporter's ID

D. Transporter 2 Phone (206) 832-3000

9. Designated Facility Name and Site Address
EMERALD SERVICES INC AIRPORT
WABO AIRPORT WAY S.
SEATTLE, WA 98134

10. US EPA ID Number
WA058367152

E. State Facility's ID

F. Facility's Phone (206) 832 3090

11. WASTE DESCRIPTION

12. Containers

13. Total Quantity

14. Unit WL/Vol

a. MATERIAL NOT REGULATED BY D.O.T.

16

DM

5100

P

b. MATERIAL NOT REGULATED BY D.O.T.

5

DM

1450

P

c.

d. MATERIAL NOT REGULATED BY D.O.T.

2

DM

1050

P

G. Additional Descriptions for Materials Listed Above

- a) 600505 USED OIL
- b) 600501 OILY WATER
- c) 603201 OIL SLUDGE

H. Handling Codes for Wastes Listed Above

- a) NA
- b) NA
- c) NA

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Date

Printed/Typed Name

Valerie Y. Palmer

Signature

Valerie Y. Palmer

Month Day Year
08/19/09

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

X BRIAN EKSTRAND

Signature

Brian Ekstrand

Month Day Year
08/21/09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Tim Simen

Signature

Tim Simen

Month Day Year
10/17/09

19. Discrepancy Indication Space

20. Facility Owner or Operator, Certification of receipt of the waste materials covered by this manifest, except as noted in Item 19

Date

Printed/Typed Name

Antonio Pechera

Signature

Antonio Pechera

Month Day Year
11/12/09

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

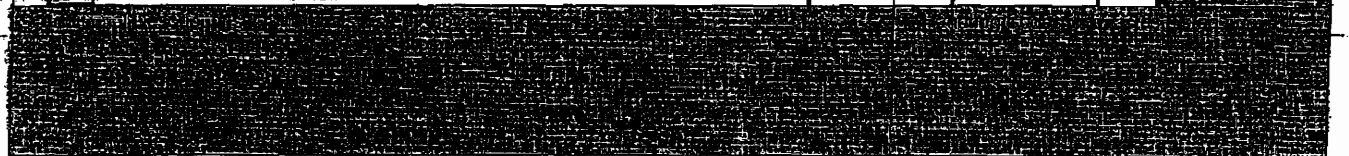
IN CASE OF EMERGENCY CALL 206-832-3000 ***

designed for use on elite (12-pitch) typewriter.)

AK09834 (RP)
Form Approved OMB No. 2050-0089

HAZARDOUS MANIFEST (Continuation Sheet)	21 Generator's US EPA ID No	Manifest Document No.	22 Page	Information in the shaded areas is not required by Federal law
	AK0000228395	9834A	2 / 2	
Name				
U.S. ARMY USACE NORTHEAST CAP				
KANGUKHSAM MT 52.25 MI ESE OF				
(907) 753-2689 SAVOONGA, AK 99769				
Transporter	Company Name	25 US EPA ID Number		
Transporter	Company Name	27 US EPA ID Number		

	HM	28 US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	29. Containers		30. Total Quantity	31. Unit Wt/Vol
			No	Type		
a		MATERIAL NOT REGULATED BY D.O.T.	11	DM	4350	P
b		MATERIAL NOT REGULATED BY D.O.T.	2	DM	250	P
c						
d						
e						
f						
g						
h						
i						



32. Special Handling Instructions and Additional Information

TRANSPORTER	33 Transporter <u>3</u> Acknowledgement of Receipt of Materials	Date
	Printed/Typed Name Signature	Month Day Year
FACILITY	34 Transporter <u>3</u> Acknowledgement of Receipt of Materials	Date
	Printed/Typed Name Signature	Month Day Year

35. Discrepancy Indication Space

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. AK0000228395		Manifest Document No. 9834B		2. Page 1 of 1	
3. Generator's Name and Mailing Address U.S. AIR FORCE NORTHEAST CAPE PO BOX 6898 ELMENDORF AFB, AK 99506-0898							
4. Generator's Phone (907) 753-2689							
5. Transporter 1 Company Name NORTHLAND SERVICES, INC.		6. US EPA ID Number WAD981773005		A. State Transporter's ID			
7. Transporter 2 Company Name EMERALD SERVICES, INC.		8. US EPA ID Number WAD058364647		B. Transporter 1 Phone (800) 426-3113			
9. Designated Facility Name and Site Address EMERALD SERVICES INC 1825 ALEXANDER AVE TACOMA, WA 98421		10. US EPA ID Number WAD981769110		C. State Transporter's ID		D. Transporter 2 Phone (206) 832-3000	
				E. State Facility's ID			
				F. Facility's Phone (253) 627-4822			
11. WASTE DESCRIPTION HM				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
a. MATERIAL NOT REGULATED BY D.O.T.				1 0M		50 P	
b. BQ, UN2794, BATTERIES, WET, FILLED WITH ACID, 8, PG-III X (UNIVERSAL WASTE LEAD ACID BATTERIES), RC=LEAD, ERG#154				1 0M		350 P	
c.							
d.							
G. Additional Descriptions for Materials Listed Above a) AF78 NON-REGULATED ANTIFREEZE b) 4624 LEAD ACID BATTERIES				H. Handling Codes for Wastes Listed Above a) H020 b) H141			
15. Special Handling Instructions and Additional Information This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Valerie J Palmer				Signature Val J Palmer		Date 08/19/09	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature B. Bruns		Date 8/21/09	
Printed/Typed Name X BRUNS ELSTRAND				Signature B. Bruns		Date 10/7/09	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature L. Simon		Date 10/7/09	
Printed/Typed Name L. Simon				Signature L. Simon		Date 10/7/09	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name J. Beebe				Signature J. Beebe		Date 10/10/09	

NON-HAZARDOUS WASTE

TRANSPORTER

FACILITY



CERTIFICATE OF DISPOSAL/RECYCLE

GENERATOR: U.S. ARMY USACE NORTHEAST CAPE
KANGUKHSAM MT 52.25 MI ESE OF SAVOONGA
SAVOONGA AK 99769

DISPOSAL FACILITY: EMERALD ALASKA, INC.
2020 VIKING DRIVE
ANCHORAGE AK 99501

EPA ID NUMBER: AK0000228395
MANIFEST/DOCUMENT #: 9834C
ORDER NUMBER: AK09834RP
DATE OF DISPOSAL/RECYCLE: 09/23/2009

<u>LINE</u>	<u>WASTE DESCRIPTION</u>	<u>CONTAINERS</u>	<u>TYPE</u>	<u>QUANTITY</u>	<u>UOM</u>
1A	SPENT GRANULATED CARBON	1	DF05	5	P

PREPARED BY: MOISES ARAGONA

SIGNATURE:

DATE:

Your Local Partner for Recycling Environmental Services

425 Outer Springer Loop Road - Palmer, AK 99645 - (907) 258-1558 - Fax (907) 746-3651 - Toll Free (877) 375-504

*** IN CASE OF EMERGENCY CALL 206-832-3000 ***

NON-HAZARDOUS WASTE MANIFEST

AK09834RP

Please print or type (Form designed for use on ellipse (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. AK0000228395		Manifest Document No. 9834C		2. Page 1 of 2	
3. Generator's Name and Mailing Address U.S. ARMY USACE NORTHEAST CAPE PO BOX 6898 ELMENDORF AFB, AK 99506-0898							
4. Generator's Phone (907) 753-2689							
5. Transporter 1 Company Name BERING AIR, INC		6. US EPA ID Number AK0000662189		A. State Transporter's ID			
7. Transporter 2 Company Name NORTHERN AIR CARGO, INC.		8. US EPA ID Number AK00003845526		B. Transporter 1 Phone (907) 443-5464			
9. Designated Facility Name and Site Address EMERALD ALASKA, INC. 2020 VIKING DRIVE ANCHORAGE, AK 99501		10. US EPA ID Number AKR0000004184		C. State Transporter's ID		D. Transporter 2 Phone (800) 478-3330	
				E. State Facility's ID			
				F. Facility's Phone (907) 258-1558			
11. WASTE DESCRIPTION				12. Containers		13. Total Quantity	
a. Material Not Regulated By DOT				No. Type		Unit	
				1 DM		5 gal	
b.							
c.							
d.							
14. Additional Descriptions of Materials Listed Above				15. Handling Codes for Wastes Listed Above			
a) AK08201: SPENT GRANULATED CARBON							
16. Special Handling Instructions and Additional Information Shipper's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.							
17. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Tyler Ellingboe				Signature Tyler Ellingboe		Date 09/14/09	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature Russell James		Date 9/14/09	
Printed/Typed Name Russell James				Signature J. Lechee		Date 9/14/09	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature J. Lechee		Date 9/14/09	
Printed/Typed Name J. Lechee				Signature		Date	
19. Discrepancy Indication Space							
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in Item 19				Signature Moises Arana		Date 9/25/09	
Printed/Typed Name Moises Arana				Signature		Date	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. AK0000228395		Manifest Document No. 98340		2. Page 1 of 1	
3. Generator's Name and Mailing Address U.S. ARMY USACE NORTHEAST CAPE PO BOX 6898 ELMENDORF AFB, AK 99506-0898							
4. Generator's Phone (907) 753-2689							
5. Transporter 1 Company Name NORTHLAND SERVICES, INC.		6. US EPA ID Number WA D 9 8 1 7 7 3 0 0 5		A. State Transporter's ID		B. Transporter 1 Phone (300) 426-3111	
7. Transporter 2 Company Name EMERALD SERVICES, INC.		8. US EPA ID Number WA D 0 5 8 3 6 4 6 4 7		C. State Transporter's ID		D. Transporter 2 Phone (206) 832-3000	
9. Designated Facility Name and Site Address EMERALD SERVICES INC - AIRPORT W400 AIRPORT WAY S. SEATTLE, WA 98134		10. US EPA ID Number WA D 0 5 8 3 6 7 1 5 2		E. State Facility's ID		F. Facility's Phone (206) 832-3090	
11. WASTE DESCRIPTION				12. Containers		13. Total Quantity	
				No. Type		Unit	
a. Non hazardous waste solid.				50 DM		2500 P	
b.							
c.							
d.							
g. Additional Descriptions of Materials Listed Above 500002 Empty Drums				h. Handling Codes for Wastes Listed Above NA			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Tyler Ellingboe				Signature Tyler J. Ellingboe		Date Month 8 Day 24 Year 07	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature Nick Keckley		Date Month 10 Day 04 Year 07	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature R. Lundberg		Date Month 10 Day 04 Year 07	
19. Discrepancy Indication Space							
20. Facility Owner or Operator, Certification of receipt of the waste materials covered by this manifest, except as noted in item 18.				Signature Hector A. Garcia		Date Month 10 Day 24 Year 07	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY



COLUMBIA RIDGE LANDFILL & RECYCLING

18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

October 12, 2009

Bristol Construction
111 W. 16th Ave. Suite 301
Anchorage, AK 99501

CERTIFICATE OF DISPOSAL

Waste Management, Inc. dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from the US Army on behalf of Bristol Construction.

Date of Disposal:	October 9, 2009
Profile #:	100052AK
Manifest #:	NEC06
Container #:	WMXU6017
Pounds Disposed:	36800 lbs.
Waste Type:	PCS

I certify, on behalf of the above listed facility, that the above-described non hazardous waste was managed in compliance with all applicable laws.

Sarah Mastriona
Special Waste Billing Department

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NEC 06		Manifest Document No. NEC 06		2. Page 1 of 2	
3. Generator's Name and Mailing Address							
4. Generator's Phone ()							
5. Transporter 1 Company Name				6. US EPA ID Number		A. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		B. Transporter 1 Phone	
9. Designated Facility Name and Site Address				10. US EPA ID Number		C. State Transporter's ID	
						D. Transporter 2 Phone	
						E. State Facility's ID	
						F. Facility's Phone	
11. WASTE DESCRIPTION						12. Containers	
						No. Type	
a.						13. Total Quantity	
b.						14. Unit Wt./Vol.	
c.							
d.							
G. Additional Descriptions for Materials Listed Above						H. Handling Codes for Wastes Listed Above	
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name				Signature		Date	
Tyler Ellingboe				Tyler Ellingboe		8/21/09	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature		Date	
BRIAN EKSTAND				BRIAN EKSTAND		8/21/09	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Date	
TARAAS KLEES				TARAAS KLEES		10/6/9	
19. Discrepancy Indication Space							
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name				Signature		Date	
Sarah Mastriona				Sarah Mastriona		10/09/09	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. AK0000228395	Manifest Document No. NEC06	22. Page 2 of 2	Information in the shaded areas is not required by Federal law.	
23. Generator's Name U.S. Army Engineer District, Alaska P.O. Box 6898, CEPOA-EN-EE-ER Elmendorf AFB, Alaska 99506-6898				L. State Manifest Document Number		
				M. State Generator's ID		
24. Transporter 3 Company Name Union Pacific		25. US EPA ID Number NED001792910		N. State Transporter's ID		
26. Transporter 4 Company Name Columbia Ridge Landfill		27. US EPA ID Number ORD987173457		O. Transporter's Phone 206-674-1438		
				P. State Transporter's ID		
				Q. Transporter's Phone 541-454-2630		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				29. Containers	30. Total Quantity	31. Unit Wt/Vol
				No.	Type	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						
S. Additional Descriptions for Materials Listed Above				T. Handling Codes for Wastes Listed Above		
32. Special Handling Instructions and Additional Information						
33. Transporter 3 Acknowledgement of Receipt of Materials				Date		
Printed/Typed Name L. Sathian		Signature <i>[Signature]</i>		Month Day Year 10/1/09		
34. Transporter 4 Acknowledgement of Receipt of Materials				Date		
Printed/Typed Name Angela Timmerman		Signature <i>[Signature]</i>		Month Day Year 10/09/09		
35. Discrepancy Indication Space						

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET: 640108
DATE: 10/12/2009
TIME: 08:58 - 08:58
LOAD DATE: 10/07/2009
TIP DATE: 10/09/2009

CUSTOMER: BRISTOL CONSTRUCTION
PROFILE: 100052AK / BRISTOL ENV/US
TRUCK: 705872
ORIGIN: ST LAURENCE
COMMENT: Rent: 4/28-10/7: 161 days

P.O.#: 705872
GROSS: 79520 LBS
FARE: 42720 LBS
NET: 36800 LBS
MANIFEST: NEC06

TRAILER: 6017
CONTAINER: 6017

WASTE	NET/TONS	UNIT
MISRGCC / MISC DAILY COVER (SRF)	1.00	U
LOC-U-RGC / LOCAL TRANS BY UNIT DAI	1.00	U
TRANSURGC / TRANS BY UNIT DAILY COV	1.00	U
PCSRRGP / PCS DAILY COVER - (PSP)	18.40	T
LINERAGC / LINER DAILY COVER (RTF)	1.00	U
ENV-RGCP / ENVIRONMENTAL FEE - RGC	19.40	T
DELRGCC / DELIVERY DAILY COVER (RTF)	1.00	U

Driver:

IN: SARAH MASTRIONA

B: DRARL101DC

Weightmaster:

OUT: SARAH MASTRIONA

B: DRARL101DC



Oregon Waste Systems

A Waste Management Company

18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

No 705872

DATE/TIME:

LOAD DATE:

CUSTOMER: Bristol Env / US Army

PROFILE NUMBER:

100052AK

TRUCK NUMBER:

816524

TRAILER/CONTAINER NUMBER:

6017

SEAL NUMBER:

CUSTOMER INVOICE NO.:

NEC 06

GROSS WEIGHT:

79520

TARE WEIGHT-TRACTOR:

TARE WGT-TRAILER/CONTAINER:

42720

NET WEIGHT:

36800

GATEHOUSE:

DRIVER:

TRAIN ID:

ORIGIN:

WASTE TYPE:

DISPOSAL:

CM

DC

BU

GRID

SEGREGATE

REMARKS:

HAULER:



COLUMBIA RIDGE LANDFILL & RECYCLING

18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

October 9, 2009

Bristol Construction
111 W. 16th Ave. Suite 301
Anchorage, AK 99501

CERTIFICATE OF DISPOSAL

Waste Management, Inc. dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from the US Army on behalf of Bristol Construction.

Date of Disposal:	October 8, 2009
Profile #:	100052AK
Manifest #:	NEC04
Container #:	6024
Pounds Disposed:	37200 lbs.
Waste Type:	PCS

I certify, on behalf of the above listed facility, that the above-described non hazardous waste was managed in compliance with all applicable laws.

Sarah Mastriona
Special Waste Billing Department

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. AK 0000228395		Manifest Document No. NEC 04		2. Page 1 of 2	
3. Generator's Name and Mailing Address U.S. Army Engineer District, Alaska P.O. BOX 6898, CEPOA-EN-EE-ER Elmendorf AFB, Alaska 99506-6898							
4. Generator's Phone (907) 753-2689							
5. Transporter 1 Company Name Northland Services, Inc.		6. US EPA ID Number WAD931773005		A. State Transporter's ID			
7. Transporter 2 Company Name RoadLink		8. US EPA ID Number WAH 000016673		B. Transporter 1 Phone 800-426-3113			
9. Designated Facility Name and Site Address Columbia Ridge Recycling & Landfill 18177 Cedar Springs Lane Anchorage, AK 99512		10. US EPA ID Number ORD987173457		C. State Transporter's ID		D. Transporter 2 Phone 206-903-8300	
				E. State Facility's ID			
				F. Facility's Phone 541-454-2030			
11. WASTE DESCRIPTION				12. Containers		13. Total Quantity	
				No. Type		Unit Wt./Vol.	
a. Material Not Regulated by D.O.T.				1 CM		24380 P	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above Profile #: 100052AK POL Soil Containers #: WMXU 6024				H. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information Site Address: U.S. Army USACE NEC Facility Kangukhnam Mountain 52.25 miles ESE of Savoonga Savoonga, AK 99769							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Tyler Ellingboe				Signature Tyler A. Ellingboe		Date Month Day Year 8 21 09	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature BRIAN EKSTRAND		Date Month Day Year 8 21 09	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature AMAROLIV		Date Month Day Year 10 6 09	
19. Discrepancy Indication Space							
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name Sarah Mastriona				Signature Sarah Mastriona		Date Month Day Year 10 08 09	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. AK0000228395	Manifest Document No. NEC 04		22. Page 2 of 2	Information in the shaded areas is not required by Federal law.	
23. Generator's Name U.S. Army Engineer District, Alaska P.O. Box 6898, CEPOA-EN-EE-ER Elmendorf AFB, AK 99506-6898					L. State Manifest Document Number		
24. Transporter 3 Company Name Union Pacific					25. US EPA ID Number NED001792910		
26. Transporter 4 Company Name Columbia Ridge Landfill					27. US EPA ID Number ORD987173457		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)					29. Containers	30. Total Quantity	31. Unit Wt/Vol
					No.	Type	R. Waste No.
a.							
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							
S. Additional Descriptions for Materials Listed Above					T. Handling Codes for Wastes Listed Above		
32. Special Handling Instructions and Additional Information							
33. Transporter 3 Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name L. Sathar					Signature [Signature]		Month Day Year 10/6/9
34. Transporter 4 Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name Angela Timmerman					Signature Angela Timmerman		Month Day Year 10/08/09
35. Discrepancy Indication Space							

172187

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET: 639974
DATE: 10/09/2009
TIME: 09:44 - 09:44
LOAD DATE: 10/07/2009
TIP DATE: 10/09/2009

CUSTOMER: BRISTOL CONSTRUCTION
PROFILE: 100052AK / BRISTOL ENV/US
TRUCK: 705873
ORIGIN: ST LAWR / ST LAWRENCE
CONTAINER: 6024

COMMENT:
Rent - 4/28 - 10/7 = 161 days

P.O.: 705873
GROSS: 69500 LBS
TARE: 32300 LBS
NET: 37200 LBS
MANIFEST: NEC04

WASTE	NET/TONS	UNIT
TRANSURGE / TRANS BY UNIT DAILY COV	1.00	U
PCSRRGP / PCS DAILY COVER - (PSP)	18.50	T
MISCRGC / MISC DAILY COVER (SRF)	1.00	U
MAN-RGC / MANIFEST/PROFILE FEE DATA	1.00	U
LOC-U-RGC / LOCAL TRANS BY UNIT DATA	1.00	U
LINERRGC / LINER DAILY COVER (RTF)	1.00	U
ENV-RGCP / ENVIRONMENTAL FEE - RGL	18.50	T
DEL-RGC / DELIVERY DAILY COVER (RTF)	1.00	U

Driver:
IN: SARAH MASTRIPIDNA

E: DRAPL101PC

Weightmaster:
OUT: SARAH MASTRIPIDNA

B: DRAPL101PC



Oregon Waste Systems

A Waste Management Company

18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

No 705873

09/07/2009 08:29

DATE/TIME:

LOAD DATE:

CUSTOMER: Bristol Env. / US Army

PROFILE NUMBER:

TRUCK NUMBER:

TRAILER/CONTAINER NUMBER:

SEAL NUMBER:

CUSTOMER INVOICE NO.:

GROSS WEIGHT:

TARE WEIGHT-TRACTOR:

TARE WGT-TRAILER/CONTAINER:

NET WEIGHT:

GATEHOUSE:

DRIVER:

TRAIN ID: 11000006 ORIGIN: 1X 951

WASTE TYPE:

DISPOSAL: CM DC BU GRID SEGREGATE

REMARKS:

HAULER:



COLUMBIA RIDGE LANDFILL & RECYCLING

18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

October 12, 2009

Bristol Construction
111 W. 16th Ave. Suite 301
Anchorage, AK 99501

CERTIFICATE OF DISPOSAL

Waste Management, Inc. dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from the US Army on behalf of Bristol Construction.

Date of Disposal:	October 9, 2009
Profile #:	100052AK
Manifest #:	NEC03
Container #:	WMXU6025
Pounds Disposed:	32420 lbs.
Waste Type:	PCS

I certify, on behalf of the above listed facility, that the above-described non hazardous waste was managed in compliance with all applicable laws.

Sarah Mastriona

Sarah Mastriona
Special Waste Billing Department

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

NE-03

2. Page 1 of 2

3. Generator's Name and Mailing Address

4. Generator's Phone ()

5. Transporter 1 Company Name

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION

12. Containers

No.

Type

13. Total Quantity

14. Unit Wt./Vol.

a.

b.

c.

d.

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name

Signature

Date

Month Day Year
8 21 09

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date

Month Day Year
8 21 09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date

Month Day Year
10 6 09

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name

Signature

Date

Month Day Year
10 09 09

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. AK0000228395	Manifest Document No. NEC03		22. Page 2 of 2	Information in the shaded areas is not required by Federal law.	
23. Generator's Name U.S. Army Engineer District, Alaska P.O. Box 6898, CERDA-EN-CE-ER Eldorado AFB, Alaska 99506-6898				L. State Manifest Document Number			
24. Transporter 3 Company Name Union Pacific				25. US EPA ID Number NEP001792910		M. State Generator's ID	
26. Transporter 4 Company Name Columbia Ridge Landfill				27. US EPA ID Number ORD987173457		N. State Transporter's ID	
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				29. Containers		30. Total Quantity	31. Unit Wt/Vol
				No.	Type		
a.							
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							
S. Additional Descriptions for Materials Listed Above				T. Handling Codes for Wastes Listed Above			
32. Special Handling Instructions and Additional Information							
33. Transporter Acknowledgement of Receipt of Materials				Date			
Printed/Typed Name L. Sathre				Signature [Signature]		Month Day Year 10/1/09	
34. Transporter Acknowledgement of Receipt of Materials				Date			
Printed/Typed Name Angela Timmerman				Signature Angela Timmerman		Month Day Year 10/09/09	
35. Discrepancy Indication Space							

172225

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET: 640109
DATE: 10/12/2009
TIME: 08:59 - 08:59
LOAD DATE: 10/07/2009
TIP DATE: 10/09/2009

CUSTOMER: BRISTOL CONSTRUCTION
PROFILE: 100052AK / BRISTOL ENV/US
TRUCK: 705874
ORIGIN: ST LAWR / ST LAWRENCE
COMMENT: Rent - 4/28-10/7 = 161 days

TRAILER: 6W25
CONTAINER: 6025

A.O.: 705874
GROSS: 74800 LBS
TARE: 42380 LBS
NET: 32420 LBS
MANIFEST: NEC03

WASTE	NET/TONS	UNIT
TRANSURBC / TRANS BY UNIT DAILY COV	1.00	U
PCSRGP / PCS DAILY COVER - (PSP)	15.21	T
MISCRCG / MISC DAILY COVER (SNF)	1.00	U
LOC-U-RGC / LOCAL TRANS BY UNIT DAI	1.00	U
LINEARGC / LINER DAILY COVER (RTF)	1.00	U
ENV RSCP / ENVIRONMENTAL FEE - RGC	15.21	T
DELARGC / DELIVERY DAILY COVER (RTF)	1.00	U

Driver:

IN: SARAH MASTRIONA

B: ORARLQ1PC

Weightmaster:

OUT: SARAH MASTRIONA

B: ORARLQ1PC



Oregon Waste Systems

A Waste Management Company

18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

No 705874

09 OCT 9 44:10:13

DATE/TIME:

LOAD DATE:

CUSTOMER: Bristol Env / US Army

PROFILE NUMBER:

TRUCK NUMBER:

TRAILER/CONTAINER NUMBER:

SEAL NUMBER:

CUSTOMER INVOICE NO.:

GROSS WEIGHT:

TARE WEIGHT-TRACTOR:

TARE WGT-TRAILER/CONTAINER:

NET WEIGHT:

GATEHOUSE:

DRIVER:

TRAIN ID: 100052AK ORIGIN: OR 97812

WASTE TYPE:

DISPOSAL: ~~DC~~ (DC) BU GRID SEGREGATE

REMARKS:

HAULER:



COLUMBIA RIDGE LANDFILL & RECYCLING

18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

October 12, 2009

Bristol Construction
111 W. 16th Ave. Suite 301
Anchorage, AK 99501

CERTIFICATE OF DISPOSAL

Waste Management, Inc. dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from the US Army on behalf of Bristol Construction.

Date of Disposal:	October 9, 2009
Profile #:	100052AK
Manifest #:	NEC01
Container #:	WMXU6065
Pounds Disposed:	12600 lbs.
Waste Type:	PCS

I certify, on behalf of the above listed facility, that the above-described non hazardous waste was managed in compliance with all applicable laws.

Sarah Mastriona
Special Waste Billing Department

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. AK0000228395		Manifest Document No. NECOI		2. Page 1 of 2	
3. Generator's Name and Mailing Address U.S. Army Engineer District, Alaska P.O. Box 6898, CEPDA-EN-EE-ER Elmendorf AFB, Alaska 99506-6898							
4. Generator's Phone (907) 753-2689							
5. Transporter 1 Company Name Northland Services Inc.		6. US EPA ID Number WAD981773005		A. State Transporter's ID			
7. Transporter 2 Company Name RoadLink		8. US EPA ID Number WAH000016683		B. Transporter 1 Phone 800-426-3113			
9. Designated Facility Name and Site Address Columbia Ridge Recycling + Landfill 13177 Cedar Springs Lane Arlington, OR 97812		10. US EPA ID Number ORD987173457		C. State Transporter's ID			
				D. Transporter 2 Phone 206-903-8300			
				E. State Facility's ID			
				F. Facility's Phone 541-454-2030			
11. WASTE DESCRIPTION				12. Containers		13. Total Quantity	
				No. Type		Unit	
a. Material Not Regulated by D.O.T.				1 1 CM		11620 P	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above a) Profile: KODOSAK POL Soil Container #: WMXU6065				H. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information Site Address: U.S. Army USACE Northeast Cape Facility Kanguksam Mountain 52.25 miles ESE of Savgonga Savgonga, Alaska 99769							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Tyler Ellingboe				Signature <i>Tyler Ellingboe</i>		Date Month Day Year 8 21 09	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature <i>Brian Elstrom</i>		Date Month Day Year 8 21 09	
Printed/Typed Name BRIAN ELSTROM				Signature <i>Brian Elstrom</i>		Date Month Day Year 8 21 09	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature <i>Tara Klets</i>		Date Month Day Year 10 6 9	
Printed/Typed Name TARA KLETS				Signature <i>Tara Klets</i>		Date Month Day Year 10 6 9	
19. Discrepancy Indication Space							
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name Sarah Mastromanno				Signature <i>Sarah Mastromanno</i>		Date Month Day Year 10 09 09	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No.	Manifest Document No.	22. Page	Information in the shaded areas is not required by Federal law.	
		AK0000228395	NEC01	2 of 2		
23. Generator's Name		U.S. Army Engineer District, Alaska 16 POK 6898, CERDA-EN-EE-ER Camp Lejeune, Alaska 99506-6898		L. State Manifest Document Number		
24. Transporter <u>3</u> Company Name		25. US EPA ID Number		M. State Generator's ID		
Waste Pacific		NEC 001792910				
26. Transporter <u>4</u> Company Name		27. US EPA ID Number		N. State Transporter's ID		
Columbia Ridge Landfill		ORD 987173457		O. Transporter's Phone 206-674-1438		
				P. State Transporter's ID		
				Q. Transporter's Phone 541-454-2080		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		29. Containers	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.	
HM		No.	Type			
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						
S. Additional Descriptions for Materials Listed Above			T. Handling Codes for Wastes Listed Above			
32. Special Handling Instructions and Additional Information						
TRANSPORTER	33. Transporter <u>3</u> Acknowledgement of Receipt of Materials			Date		
	Printed/Typed Name K. S. S. S.		Signature [Signature]	Month Day Year 10/6/9		
FACILITY	34. Transporter <u>4</u> Acknowledgement of Receipt of Materials			Date		
	Printed/Typed Name Angela Timmerman		Signature Angela Timmerman	Month Day Year 10/09/09		
35. Discrepancy Indication Space						

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030

TICKET: 640110
DATE: 10/12/2009
TIME: 09:00 - 09:00
LOAD DATE: 10/07/2009
TIP DATE: 10/09/2009

CUSTOMER: BRISTOL CONSTRUCTION
PROFILE: 100052AK / BRISTOL ENV/US
TRUCK: 705875
ORIGIN: ST LAWR / RT LAWRENCE
COMMENT: *

TRAILER: 6065

CONTAINER: 6065

P.O.: 705875
GROSS: 56140 LBS
TARE: 43540 LBS
NET: 12600 LBS
MANIFEST: NEC01

Rent 4/28-10/7: 161 days

WASTE	NET/TONS	UNIT
TRANSURGC / TRANS BY UNIT DAILY COV	1.00	U
PCSRGP / PCS DAILY COVER - (PSP)	6.30	T
MISCRGC / MISC DAILY COVER (SRF)	1.00	U
LOC-U-RGC / LOCAL TRANS BY UNIT DAI	1.00	U
LINEARGC / LINER DAILY COVER (RTF)	1.00	U
ENV-RGCP / ENVIRONMENTAL FEE - RGC	6.30	T
DELNGC / DELIVERY DAILY COVER (RTF)	1.00	U

Driver:

IN: SARAH MASTRIONA

B: DRARLI01PC

Weighmaster:

OUT: SARAH MASTRIONA

B: DRARLI01PC



Oregon Waste Systems

A Waste Management Company

18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

Nº 705875

09 OCT 3 410:03

DATE/TIME: _____
LOAD DATE: _____
CUSTOMER: Bristol Env / US Army
PROFILE NUMBER: 100052 AK
TRUCK NUMBER: 993530
TRAILER/CONTAINER NUMBER: 6065
SEAL NUMBER: _____
CUSTOMER INVOICE NO.: NEC01

GROSS WEIGHT: 56140
TARE WEIGHT-TRACTOR: _____
TARE WGT.-TRAILER/CONTAINER: 43540
NET WEIGHT: 12600

GATEHOUSE: Reis
DRIVER: _____
TRAIN ID: Large 06 ORIGIN: Ex 251
WASTE TYPE: _____
DISPOSAL: DC BU GRID SEGREGATE
REMARKS: _____

HAULER: _____



COLUMBIA RIDGE LANDFILL & RECYCLING

18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

October 9, 2009

Bristol Construction
111 W. 16th Ave. Suite 301
Anchorage, AK 99501

CERTIFICATE OF DISPOSAL

Waste Management, Inc. dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from the US Army on behalf of Bristol Construction.

Date of Disposal:	October 8, 2009
Profile #:	100052AK
Manifest #:	NEC05
Container #:	6095
Pounds Disposed:	32380 lbs.
Waste Type:	PCS

I certify, on behalf of the above listed facility, that the above-described non hazardous waste was managed in compliance with all applicable laws.

A handwritten signature in blue ink that reads 'Sarah Mastriona'.

Sarah Mastriona
Special Waste Billing Department

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. AK0006228395		Manifest Document No. NEC05		2. Page 1 of 2	
3. Generator's Name and Mailing Address U.S. Army Engineer District, Alaska P.O. Box 6897, CEPOA-EN-EE-ER Elmendorf AFB, AK 99506-6897							
4. Generator's Phone (907) 753-2689							
5. Transporter 1 Company Name Northland Services, Inc.		6. US EPA ID Number WAD931773005		A. State Transporter's ID			
7. Transporter 2 Company Name RoadLink		8. US EPA ID Number WAH000016683		B. Transporter 1 Phone 800-426-3113			
9. Designated Facility Name and Site Address Columbia Ridge Recycling & Landfill 18127 Cedar Springs Lane Arlington, OR 97112		10. US EPA ID Number ORD987173457		C. State Transporter's ID		D. Transporter 2 Phone 206-703-2300	
				E. State Facility's ID			
				F. Facility's Phone		541-454-2030	
11. WASTE DESCRIPTION				12. Containers		13. Total Quantity	
				No. Type		Unit Wt./Vol.	
a. Material Not Regulated by D.O.T.				1 CM		33970 P	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above Profile #: 100052 AK POL Soil Container #: WMXU6075				H. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information Site Address: U.S. Army USACE NEC Facility Kangukhsan Mountain 5.25 miles ESE of Savganga Savganga, AK 99769							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Tyler Ellingboe				Signature Tyler Ellingboe		Date Month 8 Day 21 Year 09	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature Brian Ekstrand		Date Month 8 Day 21 Year 09	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature Anatoliy		Date Month 10 Day 06 Year 09	
19. Discrepancy Indication Space							
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name Sarah Mastriona				Signature Sarah Mastriona		Date Month 10 Day 08 Year 09	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. AK0000228395		Manifest Document No. NEC05		22. Page 2 of 2		Information in the shaded areas is not required by Federal law.	
		23. Generator's Name U.S. Army Engineer District, Alaska P.O. Box 6898, LEPOA-EN-EE-ER Elmendorf AFB, AK 99506-6898		L. State Manifest Document Number		M. State Generator's ID			
24. Transporter 3 Company Name Union Pacific		25. US EPA ID Number NED001792910		N. State Transporter's ID		O. Transporter's Phone 206-674-1438			
26. Transporter 4 Company Name Columbia Ridge Landfill		27. US EPA ID Number ORD987173457		P. State Transporter's ID		Q. Transporter's Phone 541-454-2030			
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				29. Containers		30. Total Quantity		31. Unit Wt/Vol	
				No. Type					
GENERATOR	a.								
	b.								
	c.								
	d.								
	e.								
	f.								
	g.								
	h.								
	i.								
S. Additional Descriptions for Materials Listed Above						T. Handling Codes for Wastes Listed Above			
32. Special Handling Instructions and Additional Information									
TRANSPORTER	33. Transporter 3 Acknowledgement of Receipt of Materials						Date		
	Printed/Typed Name L. Soltau				Signature <i>[Signature]</i>		Month Day Year 10/6/09		
FACILITY	34. Transporter 4 Acknowledgement of Receipt of Materials						Date		
	Printed/Typed Name Angela Timmerman				Signature <i>[Signature]</i>		Month Day Year 10/08/09		
35. Discrepancy Indication Space									

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97012
(541)-454-2030

TICKET: 639976
DATE: 10/09/2009
TIME: 09:47 - 09:47
LOAD DATE: 10/08/2009
TIP DATE: 10/08/2009

CUSTOMER: BRISTOL CONSTRUCTION
PROFILE: 100052AK / BRISTOL ENV/US
TRUCK: 705949
ORIGIN: ST LAWR / ST LAWRENCE
COMMENT: Rent 4/28 - 10/8 = 162 days

P.O.: 705949
GROSS: 75300 LBS
TARE: 42920 LBS
NET: 32380 LBS
MANIFEST: NECOS

TRAILER: 6095
CONTAINER: 5095

WASTE	NET/TONS	UNIT
TRANSURGC / TRANS BY UNIT DAILY COV	1.00	U
PCSRGP / PCS DAILY COVER - (PSP)	16.19	T
MISCRGC / MISC DAILY COVER (SPF)	1.00	U
LOC-U-RGC / LOCAL TRANS BY UNIT DAI	1.00	U
LINERGC / LINER DAILY COVER (RTF)	1.00	U
ENV-RGCP / ENVIRONMENTAL FEE - RGC	16.19	T
DEL RGC / DELIVERY DAILY COVER (RTF)	1.00	U

Driver:
IN: SARAH MASTRIONA B: DRARLI01PC

Weighmaster:
OUT: SARAH MASTRIONA B: DRARLI01PC



Oregon Waste Systems

A Waste Management Company

18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

No 705949

DATE/TIME: _____
LOAD DATE: _____
CUSTOMER: Bristol Env. / US Army
PROFILE NUMBER: 100052 AK
TRUCK NUMBER: 816524
TRAILER/CONTAINER NUMBER: 1-095
SEAL NUMBER: _____
CUSTOMER INVOICE NO.: NECOS

GROSS WEIGHT: 75300
TARE WEIGHT-TRACTOR: _____
TARE WGT-TRAILER/CONTAINER: 42920
NET WEIGHT: 32380

GATEHOUSE: Ben
DRIVER: Ben

TRAIN ID: 100052 ORIGIN: OR 9701

WASTE TYPE: PCS

DISPOSAL: CM OC BU GRID SEGREGATE

REMARKS: _____

HAULER: _____



COLUMBIA RIDGE LANDFILL & RECYCLING

18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

October 12, 2009

Bristol Construction
111 W. 16th Ave. Suite 301
Anchorage, AK 99501

CERTIFICATE OF DISPOSAL

Waste Management, Inc. dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from the US Army on behalf of Bristol Construction.

Date of Disposal:	October 9, 2009
Profile #:	100052AK
Manifest #:	NEC02
Container #:	WMXU6141
Pounds Disposed:	29060 lbs.
Waste Type:	PCS

I certify, on behalf of the above listed facility, that the above-described non hazardous waste was managed in compliance with all applicable laws.

Sarah Mastriona
Special Waste Billing Department

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 2	
3. Generator's Name and Mailing Address							
4. Generator's Phone ()							
5. Transporter 1 Company Name		6. US EPA ID Number		A. State Transporter's ID		B. Transporter 1 Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID		D. Transporter 2 Phone	
9. Designated Facility Name and Site Address		10. US EPA ID Number		E. State Facility's ID		F. Facility's Phone	
11. WASTE DESCRIPTION				12. Containers		13. Total Quantity	
				No. Type		Unit Wt./Vol.	
a.							
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above				H. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name				Signature		Date	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature		Date	
Printed/Typed Name				Signature		Date	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Date	
Printed/Typed Name				Signature		Date	
19. Discrepancy Indication Space							
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name				Signature		Date	

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. AK 0000228395	Manifest Document No. NEC 02		22. Page 2 of 2	Information in the shaded areas is not required by Federal law.	
23. Generator's Name U.S. Army Engineer District, Alaska P.O. Box 6898, CEPOA-LN-EE-ER Elliott AFB, Alaska 99506-6898					L. State Manifest Document Number		
24. Transporter <u>3</u> Company Name Union Pacific					25. US EPA ID Number NEP001792910		
26. Transporter <u>4</u> Company Name Columbia Ridge Landfill					27. US EPA ID Number DRD987173457		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)					29. Containers	30. Total Quantity	31. Unit Wt/Vol
					No.	Type	R. Waste No.
a.							
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							
S. Additional Descriptions for Materials Listed Above					T. Handling Codes for Wastes Listed Above		
32. Special Handling Instructions and Additional Information							
33. Transporter Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name R. Sotom					Signature <i>[Signature]</i>		Month Day Year 10/16/09
34. Transporter Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name Angela Timmerman					Signature <i>[Signature]</i>		Month Day Year 10/09/09
35. Discrepancy Indication Space							

172227

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET: 640111
DATE: 10/12/2009
TIME: 09:02 - 09:02
LOAD DATE: 10/07/2009
TIP DATE: 10/09/2009

CUSTOMER: BRISTOL CONSTRUCTION
PROFILE: 100052AK / BRISTOL ENV/US
TRUCK: 705877
ORIGIN: ST LAWR / ST LAWRENCE
COMMENT: Rent: 4/28-10/17 = 161 days

P.O.: 705877
GROSS: 72280 LBS
TARE: 43220 LBS
NET: 29060 LBS
MANIFEST: NEC02

TRAILER: 6141
CONTAINER: 6141

WASTE	NET/TONS	UNIT
TRANSURGC / TRANS BY UNIT DAILY COV	1.00	U
PCSRGP / PCS DAILY COVER - (PSP)	14.53	T
MISRCGC / MISC DAILY COVER (SRF)	1.00	U
LDC-U-RGC / LOCAL TRANS BY UNIT DAI	1.00	U
LINERRGC / LINER DAILY COVER (RTF)	1.00	U
ENV-RGCP / ENVIRONMENTAL FEE - RGC	14.53	T
DELRCG / DELIVERY DAILY COVER (RTF)	1.00	U

Driver: IN: SARAH MASTRIONA B: DRARLIOIPC

Weightmaster: OUT: SARAH MASTRIONA B: DRARLIOIPC



Oregon Waste Systems
A Waste Management Company
18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

No. 705877

09 OCT 9 AM 10:14

DATE/TIME:

LOAD DATE:

CUSTOMER: Bristol Env / US Army

PROFILE NUMBER: 100052AK

TRUCK NUMBER: 817174

TRAILER/CONTAINER NUMBER: 6141

SEAL NUMBER:

CUSTOMER INVOICE NO.: NEC02

GROSS WEIGHT: 72280

TARE WEIGHT-TRACTOR:

TARE WGT-TRAILER/CONTAINER: 43220

NET WEIGHT: 29060

GATEHOUSE: Rob

DRIVER:

TRAIN ID: 100052AK

ORIGIN: OR 951

WASTE TYPE: PCS

DISPOSAL: DC

BU

GRID

SEGREGATE

REMARKS:

HAULER:



COLUMBIA RIDGE LANDFILL & RECYCLING

18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

October 12, 2009

Bristol Construction
111 W. 16th Ave. Suite 301
Anchorage, AK 99501

CERTIFICATE OF DISPOSAL

Waste Management, Inc. dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from the US Army on behalf of Bristol Construction.

Date of Disposal:	October 9, 2009
Profile #:	100052AK
Manifest #:	NEC07
Container #:	WMXU6285
Pounds Disposed:	35780 lbs.
Waste Type:	PCS

I certify, on behalf of the above listed facility, that the above-described non hazardous waste was managed in compliance with all applicable laws.

Sarah Mastriona
Special Waste Billing Department

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. AK0000228395		Manifest Document No. NEC 07		2. Page 1 of 2	
3. Generator's Name and Mailing Address U.S. Army Engineer District, Alaska P.O. Box 6398, CEPOA-EN-EE-ER Eliotendorf AFB, Alaska 99506-6398							
4. Generator's Phone (907) 753-2689							
5. Transporter 1 Company Name Northland Services, Inc.		6. US EPA ID Number WAD981773005		A. State Transporter's ID			
7. Transporter 2 Company Name Roadlink		8. US EPA ID Number WAH000016683		B. Transporter 1 Phone 800-426-3113			
9. Designated Facility Name and Site Address Columbia Ridge Recycling & Landfill 18177 Cedar Springs Lane Arlington, OR 97812		10. US EPA ID Number ORD987173457		C. State Transporter's ID			
				D. Transporter 2 Phone 206-703-8300			
				E. State Facility's ID			
				F. Facility's Phone 541-454-2030			
11. WASTE DESCRIPTION				12. Containers		13. Total Quantity	
				No. Type		Unit Wt./Vol.	
a. Material Not Regulated by D.O.T.				1 CM		36880 P	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above Profile #: 100052 AK POL Soil Container #: WMXU 6285				H. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information Site Address: U.S. Army, USACE NEC Facility Kangukh'san Mountain 52.25 miles ESE of Savganga Savganga, AK 99769							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Tyler Ellingboe				Signature Tyler Ellingboe		Date 8/21/09	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature Brian Ekstrand		Date 8/21/09	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature [Signature]		Date 10/6/09	
19. Discrepancy Indication Space							
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name Sarah Mastriona				Signature Sarah Mastriona		Date 10/09/09	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No.	Manifest Document No.	22. Page	Information in the shaded areas is not required by Federal law.	
		AK0000228395	NEC07	2 of 2		
23. Generator's Name		U.S. Navy Engineer District, Alaska PO Box 6898, CEPON-EN-EE-ER Eldridge AFB, Alaska 99704-6898		L. State Manifest Document Number		
24. Transporter <u>3</u> Company Name		25. US EPA ID Number		M. State Generator's ID		
Union Pacific		NE0001792910				
26. Transporter <u>4</u> Company Name		27. US EPA ID Number		N. State Transporter's ID		
Columbia Ridge Landfill		080987173457		O. Transporter's Phone 246 614-1438		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		29. Containers		30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
HM		No.	Type			
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						
S. Additional Descriptions for Materials Listed Above				T. Handling Codes for Wastes Listed Above		
32. Special Handling Instructions and Additional Information						
TRANSPORTER	33. Transporter <u>3</u> Acknowledgement of Receipt of Materials				Date	
	Printed/Typed Name L. Sathar		Signature <i>[Signature]</i>		Month Day Year 10/6/9	
FACILITY	34. Transporter <u>4</u> Acknowledgement of Receipt of Materials				Date	
	Printed/Typed Name Angela Timmerman		Signature Angela Timmerman		Month Day Year 10/09/09	
35. Discrepancy Indication Space						

172228

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET# 640112
DATE: 10/12/2009
TIME: 09:02 - 09:03
LOAD DATE: 10/07/2009
TIP DATE: 10/09/2009

CUSTOMER: BRISTOL CONSTRUCTION
PROFILE: 100052AK / BRISTOL ENV/UE
TRUCK: 705881
ORIGIN: ST LAWR / ST LAWRENCE
COMMENT: Rent: 4/28-10/7 = 161 days

TRAILER: 6285
CONTAINER: 6285

P.O.: 705881
GROSS: 79760 LBS
TARE: 43980 LBS
NET: 35780 LBS
MANIFEST: NEC07

WASTE	NET/TONS	UNIT
TRANSURGC / TRANS BY UNIT DAILY COV	1.00	U
PCSRGP / PCS DAILY COVER - (PSP)	17.89	T
MISCRGC / MISC DAILY COVER (SRF)	1.00	U
LDC-U-RGC / LOCAL TRANS BY UNIT DAI	1.00	U
LJNERRGC / LINER DAILY COVER (RTF)	1.00	U
ENV-RGCP / ENVIRONMENTAL FEE - RGC	17.89	T
DELRCG / DELIVERY DAILY COVER (RTF)	1.00	U

Driver:
IN: SARAH MASTRIONA B: DRARLI01PC

Weighmaster:
OUT: SARAH MASTRIONA B: DRARLI01PC



Oregon Waste Systems
A Waste Management Company
18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

Nº 705881

DATE/TIME: _____
LOAD DATE: _____
CUSTOMER: Bristol Env / US Army
PROFILE NUMBER: 100052AK
TRUCK NUMBER: 306 524
TRAILER/CONTAINER NUMBER: 6285
SEAL NUMBER: _____
CUSTOMER INVOICE NO.: NEC07

GROSS WEIGHT: 79760
TARE WEIGHT-TRACTOR: _____
TARE WGT-TRAILER/CONTAINER: 43980
NET WEIGHT: 35780

GATEHOUSE: MM
DRIVER: _____
TRAIN ID: Uge 06 ORIGIN: OR 951
WASTE TYPE: PCS
DISPOSAL: DC BU GRID SEGREGATE
REMARKS: _____

HAULER: _____



COLUMBIA RIDGE LANDFILL & RECYCLING

18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

October 9, 2009

Bristol Construction
111 W. 16th Ave. Suite 301
Anchorage, AK 99501

CERTIFICATE OF DISPOSAL

Waste Management, Inc. dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from the US Army on behalf of Bristol Construction.

Date of Disposal:	October 8, 2009
Profile #:	100052AK
Manifest #:	NEC08
Container #:	6318
Pounds Disposed:	33160 lbs.
Waste Type:	PCS

I certify, on behalf of the above listed facility, that the above-described non hazardous waste was managed in compliance with all applicable laws.

Sarah Mastriona
Special Waste Billing Department

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. AK0000228395		Manifest Document No. NEC 08		2. Page 1 of 2	
3. Generator's Name and Mailing Address U.S. Army Engineer District, Alaska P.O. Box 6878, CEDRA EN-EE-ER Eldorado AFB, AK 99506-6878							
4. Generator's Phone (907) 753-2687							
5. Transporter 1 Company Name Northland Services, Inc.		6. US EPA ID Number WAD981773005		A. State Transporter's ID			
7. Transporter 2 Company Name Roadlink		8. US EPA ID Number WAH000016683		B. Transporter 1 Phone 800-426-3113			
9. Designated Facility Name and Site Address Columbia Ridge Recycling & Landfill 13177 Cedar Springs Lane Arlington, OR 97812		10. US EPA ID Number ORD987173457		C. State Transporter's ID			
				D. Transporter 2 Phone 206-703-3300			
				E. State Facility's ID			
				F. Facility's Phone 541-454-2030			
11. WASTE DESCRIPTION				12. Containers		13. Total Quantity	
				No. Type		Unit Wt./Vol.	
a. Material Not Regulated by D.O.T.				1 CM		34130 P	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above Profile #: 100052AK PUL Soil Container #: WMLX 6318 CLC #1 WMLX 6318				H. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information USACE NEC Facility Site Address: U.S. Army, Kongsukhsam Mountain 52.25 miles ESE of Savgonga Savgonga, AK 99769							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Tyler Ellingboe				Signature Tyler Ellingboe		Date 08/21/09	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature B. Ekstrand		Date 8/21/09	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature TRANS - KLEES, MIC		Date 10/6/09	
19. Discrepancy Indication Space							
20. Facility Owner or Operator, Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name Sarah Mastriana				Signature Sarah Mastriana		Date 10/08/09	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. AK0000228395	Manifest Document No. NEC08		22. Page 2 of 2	Information in the shaded areas is not required by Federal law.	
23. Generator's Name U.S. Army Engineer District, Alaska P.O. Box 6898, CEPOA-EN-EE-ER Elmendorf AFB, AK 99506-6898					L. State Manifest Document Number		
					M. State Generator's ID		
24. Transporter 3 Company Name Union Pacific		25. US EPA ID Number NE0001792910		N. State Transporter's ID			
26. Transporter 4 Company Name Columbia Ridge Landfill		27. US EPA ID Number ORD987173457		O. Transporter's Phone 206-674-1438			
				P. State Transporter's ID			
				Q. Transporter's Phone 541-454-2030			
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)					29. Containers	30. Total Quantity	31. Unit Wt/Vol
					No.	Type	R. Waste No.
a.							
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							
S. Additional Descriptions for Materials Listed Above					T. Handling Codes for Wastes Listed Above		
32. Special Handling Instructions and Additional Information							
33. Transporter 3 Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name L. Sifton					Signature <i>[Signature]</i>		Month Day Year 10 16 09
34. Transporter 4 Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name Angela Timmerman					Signature <i>[Signature]</i>		Month Day Year 10 08 09
35. Discrepancy Indication Space							

172188

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET: 639975
DATE: 10/09/2009
TIME: 09:46 - 09:46
LOAD DATE: 10/07/2009
TIP DATE: 10/08/2009

P.O.: 705882
GROSS: 76220 LBS
TARE: 43060 LBS
NET: 33160 LBS
MANIFEST: NEC08

CUSTOMER: BRISTOL CONSTRUCTION
PROFILE: 100052AK / BRISTOL ENV/US
TRUCK: 705882
ORIGIN: ST LAWR / ST LAWRENCE
COMMENT: Rent: 4/28-10/7 = 161 days

TRAILER: 6318

CONTAINER: 6318

WASTE	NET/TONS	UNIT
TRANSURGC / TRANS BY UNIT DAILY COV	1.00	U
PCSRGP / PCS DAILY COVER - (PSP)	16.58	T
MISCRCG / MISC DAILY COVER (SAF)	1.00	U
LDC-U-RGC / LOCAL TRANS BY UNIT DAI	1.00	U
LINERGC / LINER DAILY COVER (RTF)	1.00	U
ENV RGP / ENVIRONMENTAL FEE - RGC	16.58	T
DEL RGC / DELIVERY DAILY COVER (RTF)	1.00	U

Driver:

JN: SARAH MASTRIGNA

B: 08ARL101PC

Weightmaster:

OUT: SARAH MASTRIGNA

P: 08ARL101PC



Oregon Waste Systems

A Waste Management Company

18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

Nº 705882

10/09/2009 8:28

DATE/TIME:

LOAD DATE:

CUSTOMER: Bristol Env. / US Army

PROFILE NUMBER:

100052 AK

TRUCK NUMBER:

817174

TRAILER/CONTAINER NUMBER:

6318

SEAL NUMBER:

CUSTOMER INVOICE NO.:

NEC08

GROSS WEIGHT:

76220

TARE WEIGHT-TRACTOR:

TARE WGT-TRAILER/CONTAINER:

43060

NET WEIGHT:

33160

GATEHOUSE:

DRIVER:

TRAIN ID: 100052 AK

ORIGIN: OR 851

WASTE TYPE:

DISPOSAL: CM DC BU GRID SEGREGATE

REMARKS:

HAULER:

A. Generator Information

EPA ID AK0000228395

Generator # BRI2750-09 State ID _____ Customer BRI2750

Generator Name U.S. ARMY USACE NORTHEAST CAPE Billing Company BRISTOL ENVIRONMENTAL AND

Site Address KANGUKHSAM MT 52.25 MI ESE OF Site Address 111 WEST 16TH AVENUE

City ST Zip SAVOONGA, AK 99769 City ST Zip ANCHORAGE, AK 99501

Contact _____ Contact _____

Position _____ Position _____

Phone, Fax (907) 753-2689 Phone, Fax (907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name Non regulated waste - Used Oil

DOT ID _____ Hazard Class _____ Packing Group _____ ERG _____ RQ _____

C. Regulatory Information

Name of Material LUBE OIL FOR REUSE

Generating Process MAINTENANCE/ TANK CLEANING/ PUMPING

- | | | |
|---|--|-------------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM _____ | Form Code _____ |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM _____ | Source Code G09 |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM _____ | Origin Code _____ |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM _____ | System Code NA |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes _____ |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part _____ | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes _____

D. Chemical / Constituent Composition

Constituent	PPM	% Volume
LUBE OIL		90-100

Constituent	PPM	% Volume
WATER		<10

E. Elements / Metals Composition

Method (TCLP, Generator, etc) NONE

PPM		PPM		PPM		PPM	
Aluminum	_____	Chromium	_____	Mercury	_____	Sodium	_____
Antimony	_____	Cobalt	_____	Molybdenum	_____	Sulfur	_____
Arsenic	_____	Copper	_____	Nickel	_____	Thallium	_____
Barium	_____	Iodine	_____	Phosphorous	_____	Titanium	_____
Beryllium	_____	Fluorine	_____	Potassium	_____	Vanadium	_____
Bromine	_____	Lead	_____	Selenium	_____	Zinc	_____
Cadmium	_____	Lithium	_____	Silicon	_____		
Chlorine	_____	Manganese	_____	Silver	_____		

F. Reactive Characteristics

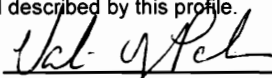
- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

G. Physical Characteristics

# Phases	<u>1</u>	Color	<u>VARIES</u>	FlashPt:	<u> </u>	pH:	<u> </u>
% Liquids	<u>100</u>	Odor / Describe	<u>MILD</u>	<input type="checkbox"/>	<73F (23C)	<input type="checkbox"/>	0-2 <input type="checkbox"/> N/A
% Sludges	<u> </u>	Viscosity	<u>Low</u>	<input type="checkbox"/>	73-140F (23-60C)	<input type="checkbox"/>	2.1-4
% Solids	<u> </u>	Density / Units	<u>7.5</u> / PPG	<input type="checkbox"/>	141-200F (61-93C)	<input checked="" type="checkbox"/>	4.1-10
% Powders	<u> </u>	Specific Gravity	<u>1.2-1.4</u>	<input checked="" type="checkbox"/>	>200F (93C)	<input type="checkbox"/>	10.1-12.4
% Gases	<u> </u>	BTUs / Lb	<u>>5000</u>	<input type="checkbox"/>	N/A	<input type="checkbox"/>	>= 12.5

H. Comments**OW TREATMENT VANCOUVER****Generator's Certification**

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature:**Date** 19 Aug 2009**Name (Print)**Valerie Y Palmer**Title**Project Engineer**TSDf's Certification**

EMERALD SERVICES INC - AIRPORT
1500 AIRPORT WAY S.
SEATTLE, WA 98134

As an authorized representative of Emerald Services, Inc., I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSDf's Authorized Signature:**Date**

A. Generator Information

EPA ID AK0000228395

Generator # BRI2750-09 State ID _____ Customer BRI2750

Generator Name U.S. ARMY USACE NORTHEAST CAPE Billing Company BRISTOL ENVIRONMENTAL AND

Site Address KANGUKHSAM MT 52.25 MI ESE OF Site Address 111 WEST 16TH AVENUE

City ST Zip SAVOONGA, AK 99769 City ST Zip ANCHORAGE, AK 99501

Contact _____ Contact _____

Position _____ Position _____

Phone, Fax (907) 753-2689 Phone, Fax (907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name Non Regulated Waste Liquid

DOT ID _____ Hazard Class _____ Packing Group _____ ERG _____ RQ _____

C. Regulatory Information

Name of Material OILY WATER/WASTEWATER WITH <10% SLUDGE, <10% NON-REG CONTAMINANTS (NO METALS)

Generating Process TANK CLEANING/WELL PURGING/GROUNDWATER CLEANUP

- | | | |
|---|--|-------------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM _____ | Form Code _____ |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM _____ | Source Code _____ |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM _____ | Origin Code _____ |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM _____ | System Code NA |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes _____ |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part _____ | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes _____

D. Chemical / Constituent Composition

Constituent	PPM	% Volume
ALUM/LIME		<1
GASOLINE		<2
SLUDGE		<10
WATER		80-100

Constituent	PPM	% Volume
Ethylene glycol		<5
OIL		<10
SURFACTANTS		<10

E. Elements / Metals Composition

Method (TCLP, Generator, etc) NONE

PPM	PPM	PPM	PPM
Aluminum	Chromium	Mercury	Sodium
Antimony	Cobalt	Molybdenum	Sulfur
Arsenic	Copper	Nickel	Thallium
Barium	Iodine	Phosphorous	Titanium
Beryllium	Fluorine	Potassium	Vanadium
Bromine	Lead	Selenium	Zinc
Cadmium	Lithium	Silicon	
Chlorine	Manganese	Silver	

F. Reactive Characteristics

- ☐ Explosive ☐ Pyrophoric ☐ Water Reactive ☐ Reactive Cyanides ☐ Polymerizable

AIRPORT

☐ Shock Sensitive ☐ Oxidizer ☐ Air Reactive ☐ Reactive Sulfides

G. Physical Characteristics

# Phases	<u>2</u>	Color	<u>VARIES</u>	FlashPt:		pH:	
% Liquids	<u>90-100</u>	Odor / Describe	<u>MILD</u>	<input type="checkbox"/>	<73F (23C)	<input type="checkbox"/>	0-2 <input type="checkbox"/> N/A
% Sludges	<u><10</u>	Viscosity	<u>Low</u>	<input type="checkbox"/>	73-140F (23-60C)	<input type="checkbox"/>	2.1-4
% Solids		Density / Units	<u>7.5</u> / PPG	<input type="checkbox"/>	141-200F (61-93C)	<input checked="" type="checkbox"/>	4.1-10
% Powders		Specific Gravity		<input checked="" type="checkbox"/>	>200F (93C)	<input type="checkbox"/>	10.1-12.4
% Gases		BTUs / Lb	<u><5000</u>	<input type="checkbox"/>	N/A	<input type="checkbox"/>	>= 12.5

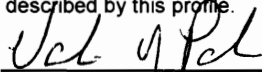
H. Comments

AIRPORTWAY TREATMENT CODE = WTP-A

Generator's Certification

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature:

Date 19 Aug 2009

Name (Print)

Valerie Y Palmer

Title

Project Engineer**TSDF's Certification**

EMERALD SERVICES INC - AIRPORT
1500 AIRPORT WAY S.
SEATTLE, WA 98134

As an authorized representative of Emerald Services, Inc., I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSDF's Authorized Signature: _____

Date _____

A. Generator Information

EPA ID AK0000228395

Generator # BRI2750-09 State ID _____ Customer BRI2750

Generator Name U.S. ARMY USACE NORTHEAST CAPE Billing Company BRISTOL ENVIRONMENTAL AND

Site Address KANGUKHSAM MT 52.25 MI ESE OF Site Address 111 WEST 16TH AVENUE

City ST Zip SAVOONGA, AK 99769 City ST Zip ANCHORAGE, AK 99501

Contact _____ Contact _____

Position _____ Position _____

Phone, Fax (907) 753-2689 Phone, Fax (907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name Non regulated waste - Liquid

DOT ID _____ Hazard Class _____ Packing Group _____ ERG _____ RQ _____

C. Regulatory Information

Name of Material OIL WATER SEPARATOR SLUDGE

Generating Process OIL WATER SEPARATOR CLEANING - AUTO SHOP/TRUCK SHOP/FUELING STATION

- | | | |
|---|--|-------------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM _____ | Form Code _____ |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM _____ | Source Code _____ |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM _____ | Origin Code _____ |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM _____ | System Code NA |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes _____ |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part _____ | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes _____

D. Chemical / Constituent Composition

Constituent	PPM	% Volume
PETROLEUM OIL		20-80
WATER		0-40

Constituent	PPM	% Volume
SLUDGE		20-80

E. Elements / Metals Composition

Method (TCLP, Generator, etc) _____

PPM		PPM		PPM		PPM	
Aluminum	_____	Chromium	_____	Mercury	_____	Sodium	_____
Antimony	_____	Cobalt	_____	Molybdenum	_____	Sulfur	_____
Arsenic	_____	Copper	_____	Nickel	_____	Thallium	_____
Barium	_____	Iodine	_____	Phosphorous	_____	Titanium	_____
Beryllium	_____	Fluorine	_____	Potassium	_____	Vanadium	_____
Bromine	_____	Lead	_____	Selenium	_____	Zinc	_____
Cadmium	_____	Lithium	_____	Silicon	_____		
Chlorine	_____	Manganese	_____	Silver	_____		

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

G. Physical Characteristics

# Phases	_____	Color	Brown/Black	FlashPt:	_____	pH:	_____
% Liquids	20-80	Odor / Describe	Mild	<input type="checkbox"/>	<73F (23C)	<input type="checkbox"/>	0-2 <input type="checkbox"/> N/A
% Sludges	20-80	Viscosity	_____	<input type="checkbox"/>	73-140F (23-60C)	<input type="checkbox"/>	2.1-4
% Solids	_____	Density / Units	_____ /	<input type="checkbox"/>	141-200F (61-93C)	<input type="checkbox"/>	4.1-10
% Powders	_____	Specific Gravity	_____	<input checked="" type="checkbox"/>	>200F (93C)	<input type="checkbox"/>	10.1-12.4
% Gases	_____	BTUs / Lb	_____	<input type="checkbox"/>	N/A	<input type="checkbox"/>	>= 12.5

H. Comments**Generator's Certification**

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature: _____

Date 19 Aug 2009

Name (Print)

Valerie Palmer

Title

Project Engineer

TSD's Certification

EMERALD SERVICES INC - AIRPORT
1500 AIRPORT WAY S.
SEATTLE, WA 98134

As an authorized representative of Emerald Services, Inc., I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSD's Authorized Signature: _____

Date _____

A. Generator Information

EPA ID AK0000228395

Generator #	BRI2750-09	State ID		Customer	BRI2750
Generator Name	U.S. ARMY USACE NORTHEAST CAPE			Billing Company	BRISTOL ENVIRONMENTAL AND
Site Address	KANGUKHSAM MT 52.25 MI ESE OF			Site Address	111 WEST 16TH AVENUE
City ST Zip	SAVOONGA, AK 99769			City ST Zip	ANCHORAGE, AK 99501
Contact				Contact	
Position				Position	
Phone, Fax	(907) 753-2689			Phone, Fax	(907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name Non-regulated waste - solid

DOT ID Hazard Class Packing Group ERG RQ

C. Regulatory Information

Name of Material Solids contaminated with PCB <2ppm

Generating Process Site Clean-up

- | | | |
|---|--|-------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM | Form Code |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM | Source Code |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM | Origin Code |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM | System Code |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes

D. Chemical / Constituent Composition

Constituent	PPM	% Volume
Soil and/or sludge		99-100

Constituent	PPM	% Volume
PCB	<2	

E. Elements / Metals Composition

Method (TCLP, Generator, etc) TOTAL

PPM	PPM	PPM	PPM
Aluminum	Chromium	Mercury	Sodium
Antimony	Cobalt	Molybdenum	Sulfur
Arsenic	Copper	Nickel	Thallium
Barium	Iodine	Phosphorous	Titanium
Beryllium	Fluorine	Potassium	Vanadium
Bromine	Lead	Selenium	Zinc
Cadmium	Lithium	Silicon	
Chlorine	Manganese	Silver	

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

G. Physical Characteristics

# Phases	1	Color	Varies	FlashPt:		pH:	
% Liquids		Odor / Describe	Mild	<input type="checkbox"/>	<73F (23C)	<input type="checkbox"/>	0-2 <input type="checkbox"/> N/A
% Sludges		Viscosity		<input type="checkbox"/>	73-140F (23-60C)	<input type="checkbox"/>	2.1-4
% Solids	100	Density / Units	/	<input type="checkbox"/>	141-200F (61-93C)	<input checked="" type="checkbox"/>	4.1-10
% Powders		Specific Gravity		<input type="checkbox"/>	>200F (93C)	<input type="checkbox"/>	10.1-12.4
% Gases		BTUs / Lb		<input type="checkbox"/>	N/A	<input type="checkbox"/>	>= 12.5

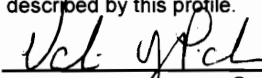
H. Comments

Waste requires an approved WAF and special handling at APW.
NRS-CR

Generator's Certification

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature:



Date 19 Aug 2009

Name (Print)

Valerie Y Palmer

Title

Project Engineer

TSDF's Certification

EMERALD SERVICES INC - AIRPORT
1500 AIRPORT WAY S.
SEATTLE, WA 98134

As an authorized representative of Emerald Services, Inc., I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSDF's Authorized Signature:

Date

A. Generator Information

EPA ID AK0000228395

Generator #	BRI2750-09	State ID		Customer	BRI2750
Generator Name	U.S. ARMY USACE NORTHEAST CAPE			Billing Company	BRISTOL ENVIRONMENTAL AND
Site Address	KANGUKHSAM MT 52.25 MI ESE OF			Site Address	111 WEST 16TH AVENUE
City ST Zip	SAVOONGA, AK 99769			City ST Zip	ANCHORAGE, AK 99501
Contact				Contact	
Position				Position	
Phone, Fax	(907) 753-2689			Phone, Fax	(907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name Non regulated waste solid.

DOT ID Hazard Class Packing Group ERG RQ

C. Regulatory Information

Name of Material PPE AND OIL DEBRIS, NO SLUDGE

Generating Process Oil Clean-up/PPE

- | | | |
|---|--|-----------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM | Form Code |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM | Source Code G09 |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM | Origin Code |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM | System Code NA |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes

D. Chemical / Constituent Composition

Constituent	PPM	% Volume
Ink / Oil		1-5

Constituent	PPM	% Volume
Rags/PPE		95-100

E. Elements / Metals Composition

Method (TCLP, Generator, etc) NONE

PPM	PPM	PPM	PPM
Aluminum	Chromium	Mercury	Sodium
Antimony	Cobalt	Molybdenum	Sulfur
Arsenic	Copper	Nickel	Thallium
Barium	Iodine	Phosphorous	Titanium
Beryllium	Fluorine	Potassium	Vanadium
Bromine	Lead	Selenium	Zinc
Cadmium	Lithium	Silicon	
Chlorine	Manganese	Silver	

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

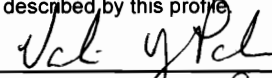
G. Physical Characteristics

# Phases	1	Color	VARIES	FlashPt:		pH:	
% Liquids		Odor / Describe	MILD	<input type="checkbox"/>	<73F (23C)	<input type="checkbox"/>	0-2 <input checked="" type="checkbox"/> N/A
% Sludges		Viscosity	High	<input type="checkbox"/>	73-140F (23-60C)	<input type="checkbox"/>	2.1-4
% Solids	100	Density / Units	/	<input type="checkbox"/>	141-200F (61-93C)	<input type="checkbox"/>	4.1-10
% Powders		Specific Gravity		<input type="checkbox"/>	>200F (93C)	<input type="checkbox"/>	10.1-12.4
% Gases		BTUs / Lb	<5000	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>	>= 12.5

H. Comments**Generator's Certification**

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature:



Date 19 Aug 2009

Name (Print)

Valerie Y Palmer

Title

Project Engineer

TSD's Certification

EMERALD SERVICES INC - AIRPORT
1500 AIRPORT WAY S.
SEATTLE, WA 98134

As an authorized representative of Emerald Services, Inc., I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSD's Authorized Signature:

Date

A. Generator Information

EPA ID AK0000228395

Generator # BRI2750-09 State ID _____ Customer BRI2750

Generator Name U.S. ARMY USACE NORTHEAST CAPE Billing Company BRISTOL ENVIRONMENTAL AND

Site Address KANGUKHSAM MT 52.25 MI ESE OF Site Address 111 WEST 16TH AVENUE

City ST Zip SAVOONGA, AK 99769 City ST Zip ANCHORAGE, AK 99501

Contact _____ Contact _____

Position _____ Position _____

Phone, Fax (907) 753-2689 Phone, Fax (907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name NON-REGULATED MATERIAL, SPENT ANTIFREEZE (FOR RECYCLE)

DOT ID _____ Hazard Class _____ Packing Group _____ ERG _____ RQ _____

C. Regulatory Information

Name of Material NON-REGULATED ANTIFREEZE

Generating Process VEHICLE RADIATOR DRAINING / MAINTANCE.

- | | | |
|---|--|-------------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM _____ | Form Code W21 |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM _____ | Source Code 609 |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM _____ | Origin Code 1 |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM _____ | System Code H020 |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes _____ |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part _____ | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes _____

D. Chemical / Constituent Composition

Constituent	PPM	% Volume
Ethylene glycol		25-100
WATER		0-75

Constituent	PPM	% Volume
OIL		0-5

E. Elements / Metals Composition

Method (TCLP, Generator, etc) NONE

PPM		PPM		PPM		PPM	
Aluminum	_____	Chromium	_____	Mercury	_____	Sodium	_____
Antimony	_____	Cobalt	_____	Molybdenum	_____	Sulfur	_____
Arsenic	_____	Copper	_____	Nickel	_____	Thallium	_____
Barium	_____	Iodine	_____	Phosphorous	_____	Titanium	_____
Beryllium	_____	Fluorine	_____	Potassium	_____	Vanadium	_____
Bromine	_____	Lead	_____	Selenium	_____	Zinc	_____
Cadmium	_____	Lithium	_____	Silicon	_____		
Chlorine	_____	Manganese	_____	Silver	_____		

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

G. Physical Characteristics

# Phases	<u>2</u>	Color	<u>VARIES</u>	FlashPt:	<u> </u>	pH:	<u> </u>
% Liquids	<u>95</u>	Odor / Describe	<u>MILD</u>	<input type="checkbox"/>	<73F (23C)	<input type="checkbox"/>	0-2 <input type="checkbox"/> N/A
% Sludges	<u>5</u>	Viscosity	<u>Low</u>	<input type="checkbox"/>	73-140F (23-60C)	<input type="checkbox"/>	2.1-4
% Solids	<u> </u>	Density / Units	<u>9.3</u> / PPG	<input type="checkbox"/>	141-200F (61-93C)	<input checked="" type="checkbox"/>	4.1-10
% Powders	<u> </u>	Specific Gravity	<u>1.12</u>	<input checked="" type="checkbox"/>	>200F (93C)	<input type="checkbox"/>	10.1-12.4
% Gases	<u> </u>	BTUs / Lb	<u><5000</u>	<input type="checkbox"/>	N/A	<input type="checkbox"/>	>= 12.5

H. Comments

This profile is for Ethylene Glycol going for recycling only.

Generator's Certification

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature:Val. Y. Palmer**Date** 19 Aug 2009**Name (Print)**Valerie Y Palmer**Title**Project Engineer**TSD's Certification**

EMERALD SERVICES INC
1825 ALEXANDER AVE
TACOMA, WA 98421

As an authorized representative of Emerald Services, Inc., I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSD's Authorized Signature:EMERALD SERVICESENV. MANAGER**Date**

A. Generator Information

EPA ID AK0000228395

Generator #	BRI2750-09	State ID		Customer	BRI2750
Generator Name	U.S. ARMY USACE NORTHEAST CAPE			Billing Company	BRISTOL ENVIRONMENTAL AND
Site Address	KANGUKHSAM MT 52.25 MI ESE OF			Site Address	111 WEST 16TH AVENUE
City ST Zip	SAVOONGA, AK 99769			City ST Zip	ANCHORAGE, AK 99501
Contact				Contact	
Position				Position	
Phone, Fax	(907) 753-2689			Phone, Fax	(907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name BATTERIES, WET, FILLED WITH ACID (UNIVERSAL WASTE BATTERIES)

DOT ID UN2794 Hazard Class 8 Packing Group III ERG 154 RQ LEAD

C. Regulatory Information

Name of Material LEAD ACID BATTERIES

Generating Process CHANGE OUTS

- | | | | |
|---|--|-------------|------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM | Form Code | W30 |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM | Source Code | 816 |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM | Origin Code | 1 |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM | System Code | H141 |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes | |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part | | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | | |

EPA Codes

D. Chemical / Constituent Composition

Constituent	PPM	% Volume	Constituent	PPM	% Volume
LEAD ACID BATTERIES		100			

E. Elements / Metals Composition

Method (TCLP, Generator, etc) NONE

PPM		PPM		PPM		PPM	
Aluminum		Chromium		Mercury		Sodium	
Antimony		Cobalt		Molybdenum		Sulfur	
Arsenic		Copper		Nickel		Thallium	
Barium		Iodine		Phosphorous		Titanium	
Beryllium		Fluorine		Potassium		Vanadium	
Bromine		Lead		Selenium		Zinc	
Cadmium		Lithium		Silicon			
Chlorine		Manganese		Silver			

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

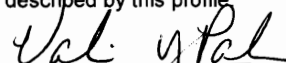
G. Physical Characteristics

# Phases	1	Color		FlashPt:		pH:	
% Liquids		Odor / Describe		<input type="checkbox"/> <73F (23C)		<input type="checkbox"/> 0-2	<input checked="" type="checkbox"/> N/A
% Sludges		Viscosity	High	<input type="checkbox"/> 73-140F (23-60C)		<input type="checkbox"/> 2.1-4	
% Solids	100	Density / Units	/	<input type="checkbox"/> 141-200F (61-93C)		<input type="checkbox"/> 4.1-10	
% Powders		Specific Gravity		<input type="checkbox"/> >200F (93C)		<input type="checkbox"/> 10.1-12.4	
% Gases		BTUs / Lb		<input checked="" type="checkbox"/> N/A		<input type="checkbox"/> >= 12.5	

H. Comments**Generator's Certification**

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature:



Date

19 Aug 2009

Name (Print)

Valerie Y. Palmer

Title

Project Engineer

TSD's Certification

EMERALD SERVICES INC
1825 ALEXANDER AVE
TACOMA, WA 98421

As an authorized representative of Emerald Services, Inc., I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSD's Authorized Signature:

TIM BERRANS

ENV. MANAGER

Date

2/15/2002 12:00:00AM

A. Generator Information

EPA ID AK0000228395

Generator # BRI2750-09 State ID _____ Customer BRI2750

Generator Name U.S. ARMY USACE NORTHEAST CAPE Billing Company BRISTOL ENVIRONMENTAL AND

Site Address KANGUKHSAM MT 52.25 MI ESE OF Site Address 111 WEST 16TH AVENUE

City ST Zip SAVOONGA, AK 99769 City ST Zip ANCHORAGE, AK 99501

Contact _____ Contact _____

Position _____ Position _____

Phone, Fax (907) 753-2689 Phone, Fax (907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CHLORINATED PARAFFINS, LEAD)

DOT ID UN3077 Hazard Class 9 Packing Group III ERG 171 RQ LEAD

C. Regulatory Information

Name of Material USED OIL WITH CHLORINATED PARAFFINS AND LEAD

Generating Process LANDFILL CLEAN-UP

- | | | |
|---|--|-------------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM _____ | Form Code W20 |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM _____ | Source Code 644 |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM _____ | Origin Code _____ |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM _____ | System Code H040 |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes _____ |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part _____ | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes D008

D. Chemical / Constituent Composition

Constituent	PPM	% Volume
CHLORINATED PARAFFINS		1
USED OIL		100

Constituent	PPM	% Volume
Lead		1

E. Elements / Metals Composition

Method (TCLP, Generator, etc) TCLP

PPM	PPM	PPM	PPM
Aluminum	Chromium	Mercury	Sodium
Antimony	Cobalt	Molybdenum	Sulfur
Arsenic	Copper	Nickel	Thallium
Barium	Iodine	Phosphorous	Titanium
Beryllium	Fluorine	Potassium	Vanadium
Bromine	Lead 5	Selenium	Zinc
Cadmium	Lithium	Silicon	
Chlorine	Manganese	Silver	

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

G. Physical Characteristics

# Phases	1	Color	BLACK	FlashPt:		pH:	
% Liquids	100	Odor / Describe	HYDROCARBON	<input type="checkbox"/>	<73F (23C)	<input type="checkbox"/>	0-2 <input type="checkbox"/> N/A
% Sludges		Viscosity	Low	<input type="checkbox"/>	73-140F (23-60C)	<input type="checkbox"/>	2.1-4
% Solids		Density / Units	/	<input type="checkbox"/>	141-200F (61-93C)	<input checked="" type="checkbox"/>	4.1-10
% Powders		Specific Gravity	0.8-1.0	<input checked="" type="checkbox"/>	>200F (93C)	<input type="checkbox"/>	10.1-12.4
% Gases		BTUs / Lb	>5000	<input type="checkbox"/>	N/A	<input type="checkbox"/>	>= 12.5

H. Comments

Generator's Certification

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature:

Valerie Y Palmer

Date 19 Aug 2009

Name (Print)

Valerie Y Palmer

Title

Project Engineer

TSDF's Certification

CLEAN HARBORS (ARAGONITE), LLC
11600 N. APTUS ROAD, EXIT 56
ARAGONITE, UT 84029

As an authorized representative of Emerald Services, Inc., I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSDF's Authorized Signature:

Date

A. Generator Information

EPA ID AK0000228395

Generator #	<u>BRI2750-09</u>	State ID	<u></u>	Customer	<u>BRI2750</u>
Generator Name	<u>U.S. ARMY USACE NORTHEAST CAPE</u>	Billing Company	<u>BRISTOL ENVIRONMENTAL AND</u>		
Site Address	<u>KANGUKHSAM MT 52.25 MI ESE OF</u>	Site Address	<u>111 WEST 16TH AVENUE</u>		
City ST Zip	<u>SAVOONGA, AK 99769</u>	City ST Zip	<u>ANCHORAGE, AK 99501</u>		
Contact	<u></u>	Contact	<u></u>		
Position	<u></u>	Position	<u></u>		
Phone, Fax	<u>(907) 753-2689</u>	Phone, Fax	<u>(907) 563-0013</u>	<u>(907) 563-6713</u>	

B. Shipping Information

Proper Shipping Name WASTE FLAMMABLE LIQUIDS, N.O.S. (METHANOL, DIESEL FUEL)

DOT ID UN1993 Hazard Class 3 Packing Group II ERG 128 RQ F003

C. Regulatory Information

Name of Material MTHANOL AND DIESEL MIXTURE

Generating Process CONSOLIDATION DRUM

- | | | |
|---|--|-------------------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM <u></u> | Form Code <u>W20</u> |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM <u></u> | Source Code <u>344</u> |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM <u></u> | Origin Code <u></u> |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM <u></u> | System Code <u>H061</u> |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes <u></u> |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part <u></u> | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes F003

D. Chemical / Constituent Composition

Constituent	PPM	% Volume	Constituent	PPM	% Volume
DIESEL FUEL		30-50	Methanol		50-70

E. Elements / Metals Composition

Method (TCLP, Generator, etc) NONE

PPM		PPM		PPM		PPM	
Aluminum		Chromium		Mercury		Sodium	
Antimony		Cobalt		Molybdenum		Sulfur	
Arsenic		Copper		Nickel		Thallium	
Barium		Iodine		Phosphorous		Titanium	
Beryllium		Fluorine		Potassium		Vanadium	
Bromine		Lead		Selenium		Zinc	
Cadmium		Lithium		Silicon			
Chlorine		Manganese		Silver			

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

G. Physical Characteristics

# Phases	<u>1</u>	Color	<u>BROWN</u>	FlashPt:	<u></u>	pH:	<u></u>
% Liquids	<u>100</u>	Odor / Describe	<u>SOLVENT</u>	<input checked="" type="checkbox"/> <73F (23C)		<input type="checkbox"/> 0-2	<input type="checkbox"/> N/A
% Sludges	<u></u>	Viscosity	<u>Low</u>	<input type="checkbox"/> 73-140F (23-60C)		<input type="checkbox"/> 2.1-4	
% Solids	<u></u>	Density / Units	<u>/</u>	<input type="checkbox"/> 141-200F (61-93C)		<input checked="" type="checkbox"/> 4.1-10	
% Powders	<u></u>	Specific Gravity	<u>0.8-1.0</u>	<input type="checkbox"/> >200F (93C)		<input type="checkbox"/> 10.1-12.4	
% Gases	<u></u>	BTUs / Lb	<u>>10000</u>	<input type="checkbox"/> N/A		<input type="checkbox"/> >= 12.5	

H. Comments

Generator's Certification

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature: Val y Pal

Date 19 Aug 2009

Name (Print)

Valerie Y Palmer

Title

Project Engineer

TSD's Certification

CLEAN HARBORS (ARAGONITE), LLC
11600 N. APTUS ROAD, EXIT 56
ARAGONITE, UT 84029

As an authorized representative of Emerald Services, Inc. , I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSD's Authorized Signature: _____

Date _____

A. Generator Information

EPA ID AK0000228395

Generator # BRI2750-09 State ID _____ Customer BRI2750

Generator Name U.S. ARMY USACE NORTHEAST CAPE Billing Company BRISTOL ENVIRONMENTAL AND

Site Address KANGUKHSAM MT 52.25 MI ESE OF Site Address 111 WEST 16TH AVENUE

City ST Zip SAVOONGA, AK 99769 City ST Zip ANCHORAGE, AK 99501

Contact _____ Contact _____

Position _____ Position _____

Phone, Fax (907) 753-2689 Phone, Fax (907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name WASTE FLAMMABLE LIQUIDS, N.O.S. (ETHANOL, OIL)

DOT ID UN1993 Hazard Class 3 Packing Group III ERG 128 RQ _____

C. Regulatory Information

Name of Material SPENT CHLOR-D-TECT 100 CHLORINE/HALOGEN TEST KITS

Generating Process FIELD TESTING

- | | | |
|---|--|-------------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM _____ | Form Code W20 |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM _____ | Source Code 622 |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM _____ | Origin Code _____ |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM _____ | System Code H040 |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes _____ |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part _____ | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes D001

D. Chemical / Constituent Composition

Constituent	PPM	% Volume	Constituent	PPM	% Volume
DEBRIS		96-98	ETHANOL		1-2
OIL		1-2			

E. Elements / Metals Composition

Method (TCLP, Generator, etc) NONE

PPM		PPM		PPM		PPM	
Aluminum		Chromium		Mercury		Sodium	
Antimony		Cobalt		Molybdenum		Sulfur	
Arsenic		Copper		Nickel		Thallium	
Barium		Iodine		Phosphorous		Titanium	
Beryllium		Fluorine		Potassium		Vanadium	
Bromine		Lead		Selenium		Zinc	
Cadmium		Lithium		Silicon			
Chlorine		Manganese		Silver			

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

G. Physical Characteristics

# Phases	<u>2</u>	Color	<u>VARIES</u>	FlashPt:		pH:	
% Liquids	<u>1-5</u>	Odor / Describe	<u>NONE</u>	<input checked="" type="checkbox"/> <73F (23C)		<input type="checkbox"/> 0-2	<input type="checkbox"/> N/A
% Sludges		Viscosity	<u>High</u>	<input type="checkbox"/> 73-140F (23-60C)		<input type="checkbox"/> 2.1-4	
% Solids	<u>95-99</u>	Density / Units	<u>/</u>	<input type="checkbox"/> 141-200F (61-93C)		<input checked="" type="checkbox"/> 4.1-10	
% Powders		Specific Gravity	<u>0.8</u>	<input type="checkbox"/> >200F (93C)		<input type="checkbox"/> 10.1-12.4	
% Gases		BTUs / Lb	<u>N/A</u>	<input type="checkbox"/> N/A		<input type="checkbox"/> >= 12.5	

H. Comments

Generator's Certification

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature:

Val. J. Palmer

Date 19 Aug 2009

Name (Print)

Valerie J Palmer

Title

Project Engineer

TSDF's Certification

CLEAN HARBORS (ARAGONITE), LLC
11600 N. APTUS ROAD, EXIT 56
ARAGONITE, UT 84029

As an authorized representative of Emerald Services, Inc., I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSDF's Authorized Signature:

Date

A. Generator Information

EPA ID AK0000228395

Generator #	BRI2750-09	State ID		Customer	BRI2750
Generator Name	U.S. ARMY USACE NORTHEAST CAPE			Billing Company	BRISTOL ENVIRONMENTAL AND
Site Address	KANGUKHSAM MT 52.25 MI ESE OF			Site Address	111 WEST 16TH AVENUE
City ST Zip	SAVOONGA, AK 99769			City ST Zip	ANCHORAGE, AK 99501
Contact				Contact	
Position				Position	
Phone, Fax	(907) 753-2689			Phone, Fax	(907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (LEAD)

DOT ID UN3077 Hazard Class 8 Packing Group III ERG 171 RQ D008

C. Regulatory Information

Name of Material BROKEN PIECES OF LEAD ACID BATTERIES (NO FREE LIQUIDS)

Generating Process LANDFILL CLEAN-UP

- | | | | |
|---|--|-------------|------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM | Form Code | W30 |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM | Source Code | G16 |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM | Origin Code | |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM | System Code | H131 |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes | |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part | | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | | |

EPA Codes D008

D. Chemical / Constituent Composition

Constituent	PPM	% Volume
Lead		25-75

Constituent	PPM	% Volume
PLASTIC		25-75

E. Elements / Metals Composition

Method (TCLP, Generator, etc) TCLP

PPM		PPM		PPM		PPM	
Aluminum		Chromium		Mercury		Sodium	
Antimony		Cobalt		Molybdenum		Sulfur	
Arsenic		Copper		Nickel		Thallium	
Barium		Iodine		Phosphorous		Titanium	
Beryllium		Fluorine		Potassium		Vanadium	
Bromine		Lead	>5	Selenium		Zinc	
Cadmium		Lithium		Silicon			
Chlorine		Manganese		Silver			

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

G. Physical Characteristics

TSDf's Authorized Signature: _____ **Date** _____

A. Generator Information

EPA ID AK0000228395

Generator # BRI2750-09 State ID _____ Customer BRI2750

Generator Name U.S. ARMY USACE NORTHEAST CAPE Billing Company BRISTOL ENVIRONMENTAL AND

Site Address KANGUKHSAM MT 52.25 MI ESE OF Site Address 111 WEST 16TH AVENUE

City ST Zip SAVOONGA, AK 99769 City ST Zip ANCHORAGE, AK 99501

Contact _____ Contact _____

Position _____ Position _____

Phone, Fax (907) 753-2689 Phone, Fax (907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name POLYCHLORINATED BIPHENYLS, SOLID

DOT ID UN3432 Hazard Class 9 Packing Group II ERG 171 RQ 1

C. Regulatory Information

Name of Material PCB LIGHT BALLAST

Generating Process OUT OF SERVICE

- | | | |
|---|--|-------------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM _____ | Form Code W30 |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM _____ | Source Code 815 |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM _____ | Origin Code 2 |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM _____ | System Code _____ |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes _____ |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part _____ | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes _____

D. Chemical / Constituent Composition

Constituent	PPM	% Volume	Constituent	PPM	% Volume
PCB LIGHT BALLAST		100			

E. Elements / Metals Composition

Method (TCLP, Generator, etc) _____

PPM		PPM		PPM		PPM	
Aluminum	_____	Chromium	_____	Mercury	_____	Sodium	_____
Antimony	_____	Cobalt	_____	Molybdenum	_____	Sulfur	_____
Arsenic	_____	Copper	_____	Nickel	_____	Thallium	_____
Barium	_____	Iodine	_____	Phosphorous	_____	Titanium	_____
Beryllium	_____	Fluorine	_____	Potassium	_____	Vanadium	_____
Bromine	_____	Lead	_____	Selenium	_____	Zinc	_____
Cadmium	_____	Lithium	_____	Silicon	_____		
Chlorine	_____	Manganese	_____	Silver	_____		

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

G. Physical Characteristics

H. Comments

Generator's Authorized Signature: Val- y Palme Date 19 Aug 2009
Name (Print) Valerie Y Palmer Title Project Engineer

TSDf's Authorized Signature: _____ **Date** _____

A. Generator Information

EPA ID AK0000228395

Generator #	BRI2750-09	State ID		Customer	BRI2750
Generator Name	U.S. ARMY USACE NORTHEAST CAPE			Billing Company	BRISTOL ENVIRONMENTAL AND
Site Address	KANGUKHSAM MT 52.25 MI ESE OF			Site Address	111 WEST 16TH AVENUE
City ST Zip	SAVOONGA, AK 99769			City ST Zip	ANCHORAGE, AK 99501
Contact				Contact	
Position				Position	
Phone, Fax	(907) 753-2689			Phone, Fax	(907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name MATERIAL NOT REGULATED BY D.O.T.

DOT ID Hazard Class Packing Group ERG RQ

C. Regulatory Information

Name of Material ASH

Generating Process BURNING OF CAMP TRASH

- | | | |
|---|--|-------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM | Form Code |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM | Source Code |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM | Origin Code |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM | System Code |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes

D. Chemical / Constituent Composition

Constituent	PPM	% Volume	Constituent	PPM	% Volume
ASH FROM GARBAGE BURNING		100			

E. Elements / Metals Composition

Method (TCLP, Generator, etc) NONE

PPM	PPM	PPM	PPM
Aluminum	Chromium	Mercury	Sodium
Antimony	Cobalt	Molybdenum	Sulfur
Arsenic	Copper	Nickel	Thallium
Barium	Iodine	Phosphorous	Titanium
Beryllium	Fluorine	Potassium	Vanadium
Bromine	Lead	Selenium	Zinc
Cadmium	Lithium	Silicon	
Chlorine	Manganese	Silver	

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

G. Physical Characteristics

# Phases <u>1</u>	Color <u>BLACK</u>	FlashPt: _____	pH: _____
% Liquids _____	Odor / Describe <u>NONE</u>	<input type="checkbox"/> <73F (23C)	<input type="checkbox"/> 0-2 <input type="checkbox"/> N/A
% Sludges _____	Viscosity <u>High</u>	<input type="checkbox"/> 73-140F (23-60C)	<input type="checkbox"/> 2.1-4
% Solids <u>100</u>	Density / Units _____ /	<input type="checkbox"/> 141-200F (61-93C)	<input checked="" type="checkbox"/> 4.1-10
% Powders _____	Specific Gravity <u>N/A</u>	<input checked="" type="checkbox"/> >200F (93C)	<input type="checkbox"/> 10.1-12.4
% Gases _____	BTUs / Lb <u>N/</u>	<input type="checkbox"/> N/A	<input type="checkbox"/> >= 12.5

H. Comments**Generator's Certification**

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile:

Generator's Authorized Signature: _____

Date 19 Aug 2009

Name (Print) _____

Valerie Y Palmer

Title _____

Project Engineer**TSD's Certification**

US ECOLOGY IDAHO, INC.
20400 LEMLEY RD
GRAND VIEW, ID 83624

As an authorized representative of Emerald Services, Inc., I certify, by my signature below, that Emerald Services, Inc. has the necessary permits per WAC 173-303-290(3) and 40CFR 264.12(b) to accept and properly manage the waste stream identified above.

TSD's Authorized Signature: _____

Date _____

A. Generator Information

EPA ID AK0000228395

Generator # BRI2750-09 State ID _____ Customer BRI2750

Generator Name U.S. ARMY USACE NORTHEAST CAPE Billing Company BRISTOL ENVIRONMENTAL AND

Site Address KANGUKHSAM MT 52.25 MI ESE OF Site Address 111 WEST 16TH AVENUE

City ST Zip SAVOONGA, AK 99769 City ST Zip ANCHORAGE, AK 99501

Contact _____ Contact _____

Position _____ Position _____

Phone, Fax (907) 753-2689 Phone, Fax (907) 563-0013 (907) 563-6713

B. Shipping Information

Proper Shipping Name MATERIAL NOT REGULATED BY D.O.T.

DOT ID _____ Hazard Class _____ Packing Group _____ ERG _____ RQ _____

C. Regulatory Information

Name of Material KITTY LITTER WITH OIL AND DIESEL

Generating Process LANDFILL CLEAN-UP

- | | | |
|---|--|-------------------|
| <input type="checkbox"/> Regulated Radioactive Waste | <input type="checkbox"/> Waste contains Pesticides. PPM _____ | Form Code _____ |
| <input type="checkbox"/> Regulated Infectious or Biological Waste | <input type="checkbox"/> Waste contains Phenolics. PPM _____ | Source Code _____ |
| <input type="checkbox"/> Material Poisonous by Inhalation | <input type="checkbox"/> Waste contains Dioxins. PPM _____ | Origin Code _____ |
| <input type="checkbox"/> Regulated Benzene NESHAP Waste | <input type="checkbox"/> Waste contains Halogens. PPM _____ | System Code _____ |
| <input type="checkbox"/> TSCA Regulated PCB Waste | <input type="checkbox"/> Sorbent Added? Is Biodegradable? <input type="checkbox"/> | State Codes _____ |
| <input type="checkbox"/> Regulated Ozone Depleting Substance | <input type="checkbox"/> EXEMPT Waste? CFR Part _____ | |
| <input type="checkbox"/> CERCLA Regulated (Superfund) Waste | | |
| <input type="checkbox"/> Hazardous Debris (subject to LDR) | | |

EPA Codes _____

D. Chemical / Constituent Composition

Constituent	PPM	% Volume
DIESEL FUEL		5-10
USED OIL		5-10

Constituent	PPM	% Volume
KITTY LITTER		70-90
POLYCHLORINATED BIPHENYLS	2.4	

E. Elements / Metals Composition

Method (TCLP, Generator, etc) NONE

PPM	PPM	PPM	PPM
Aluminum	Chromium	Mercury	Sodium
Antimony	Cobalt	Molybdenum	Sulfur
Arsenic	Copper	Nickel	Thallium
Barium	Iodine	Phosphorous	Titanium
Beryllium	Fluorine	Potassium	Vanadium
Bromine	Lead	Selenium	Zinc
Cadmium	Lithium	Silicon	
Chlorine	Manganese	Silver	

F. Reactive Characteristics

- | | | | | |
|--|-------------------------------------|---|--|--|
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Reactive Cyanides | <input type="checkbox"/> Polymerizable |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Reactive Sulfides | |

APPENDIX G

Deed Notice Support Information

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES REMEDIATION PROGRAM

SEAN PARNELL, GOVERNOR

555 Cordova Street
Anchorage, AK 99501-2617
Phone: (907) 269-7556
Fax: (907) 269-7649
<http://www.state.ak.us/dec/>

File No: 475.38.013

December 7, 2009

Bristol Environmental Remediation Services, LLC
Attention: Ms. Molly Welker; Project Manager
111 W. 16th Avenue, Third Floor
Anchorage, AK 99501-5109

Subject: Technical Memorandum Requesting Closure for NE Cape Landfill Site 7

Dear Ms. Welker:

Thank you for providing the Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Program (CSP) with the Nov.20, 2009 technical memorandum regarding the remediation work conducted during the 2009 season at the Site 7 Landfill at NE Cape.

On page 8 of the memorandum, Bristol formally requests that the ADEC CSP approve the closure of the Site 7 Landfill. However, at this point in time it is premature to make a closure determination for the site. Typically the Corps of Engineers submits Formerly Used Defense Site project closure reports after all the necessary field work and reporting has been completed.

I look forward to receiving and reviewing the draft and final site remediation reports from Bristol in the coming months.

If you have any questions please call me at 269-3053.

Sincerely,



Curtis Dunkin
Project Manager

cc: Carey Cossaboom, ACOE
John Halverson, ADEC

TECHNICAL MEMORANDUM

To: Mr. John Halverson, ADEC Contaminated Sites Program

From: Ms. Molly Welker, Bristol Project Manager

Date: November 20, 2009

Re: Request for Site 7 Landfill Closure at Northeast Cape, St. Lawrence Island, Alaska

Background

In 2009, Bristol Environmental Remediation Services (Bristol) was contracted by the U.S. Army Corps of Engineers, Alaska District (USACE), to conduct remediation activities at the Northeast Cape St. Lawrence Island former military installation under the Formerly Used Defense Site Program. Included in the Scope of Work was the removal of containerized waste and recapping of the Site 7 Cargo Beach Road Landfill (Site 7 Landfill). The final remedy for Site 7 also includes final closure, deed notation, implementation of land use controls, and visual monitoring.

The Site 7 Landfill is at the Northeast Cape former military facilities on St. Lawrence Island (Figure 1). St. Lawrence Island is located in the Bering Sea, approximately 135 air miles southwest of Nome, Alaska, at 63 degrees (°) 19 minutes (') north latitude and 168° 58' west longitude. The legal description of Site 7 Landfill is Township 25 South, Range 54 West, Section 15, North ½ South ½ of the Kateel River Meridian. The site is a part of a former military defense site that was occupied from the 1950s to the early 1970s. The facility functioned as a surveillance station, providing radar coverage for the Alaskan Air Command, and was later used for the North American Air Defense Command. It was part of an Alaska-wide early warning system constructed to reduce potential vulnerability to bomber attack across the polar region.

The Site 7 Landfill is an unpermitted landfill that was used as the installation's main solid waste disposal area from 1965, until closure in 1974. The dump contains a wide variety of non-hazardous materials. The landfill appears to have been created by dumping debris off the sides of a topographic mound. The debris was apparently covered by grading soil out from the top of the mound. The landfill covers approximately 500,000 square feet. The remedy for the Site 7 Landfill included the following major components:

- Exposing underlying drums/debris by digging through the areas with mapped metallic anomalies (an estimated 150,000 square feet) to determine if drums were present;
- Removal of 182 55-gallon drums with liquid or sludge contents, characterization of the waste contents, and proper disposal;

- Removal of 100 tons of incidental contaminated soils associated with identified drums to the extent severely stained soils were evident, characterization of the soils for disposal, and transporting off-site for proper disposal;
- Capping of entire landfill with 2 feet of granular borrow material obtained from a local borrow area;
- Stabilizing the site by grading it to encourage storm water run-off;
- Fertilizing and revegetating the site with an approved grass mixture from the Alaska Plant Materials Center to prevent erosion;
- Surveying the completed landfill boundary;
- Deed notation to implement land use controls to limit groundwater use and preventing construction of buildings on top of the landfill; and
- Performing visual monitoring of the capped area for settlement and erosion over a period of five years, with additional periodic reviews as necessary.

Test Pit, Trenching, and Excavation Activities

In 2007, a geophysical survey was conducted at the Site 7 Landfill by R&M Consultants, Inc., for the USACE. Areas within the landfill that displayed high levels of magnetic activity were examined by Bristol for the presence of drums. Bristol initially completed 11 test pits and/or trenches in these magnetic anomaly areas (see Figure 3 and Photograph 1). After the initial test pits were completed, all of the magnetic anomalies were investigated, solid wastes were turned over, and if any drums were filled with liquid, they were removed. Some anomalies proved to be small, isolated metal debris and this debris was not moved. During the excavation, Bristol encountered over 1,000 empty drums that were crushed and placed back in the landfill. The total area, over 150,000 square feet, that was eventually excavated by Bristol in 2009 is shown in Figure 4.



Photograph 1. A 100-square-foot by 4-foot-deep investigation trench in area of metallic anomalies.

Drum Removal

Drum removal at the Site 7 Landfill occurred between July 12, 2009, and August 3, 2009. Bristol recovered, drained, cleaned, and crushed a total of 182 drums. Fifty of the 55-gallon drums were disposed of offsite. The other 132 drums were placed back in the landfill after they were drained, cleaned, and crushed.

Excavation was performed using a Hitachi 120 excavator (Photograph 2). An environmental scientist and laborer were on-site with the excavator operator, as well as a Quality Assurance Representative from the Corps of Engineers. The environmental scientist and laborer identified the metallic anomaly areas, monitored the excavation progress for drums and other waste streams, and completed waste characterization activities at the site. The USACE Quality Assurance Representative was also present during the entire excavation task.

The excavation areas were chosen based on the metallic anomalies and the information yielded from test pits and trenching. Surface material was excavated and staged along the section of landfill being worked on. Debris was moved and piled until a drum was found. Upon discovery, the drum was checked with the aid of a drum thief. Drums found to have retrievable petroleum product, or residue determined to not be water, were moved to the Hazardous Waste Accumulation Point (HWAP) or were pumped in place into empty barrels and moved to the HWAP (Photograph 3).



Photograph 2. Excavation of soil and drums from the Site 7 Landfill.



Photograph 3. Field crew pumping liquid out of a corroded drum in the landfill.

Oil found in drums was drained and put in new containers for eventual petroleum recycling. Fifty drums were shipped off-island for disposal, and the rest of the drums were cleaned and returned to the landfill prior to capping. Drums that were extremely corroded or crushed were thoroughly cleaned on the outside and filled with Oil-Dri[®] absorbent, before being returned to the landfill (Photograph 4).



Photograph 4. Crushed drum that was cleaned, coated with Oil-Dri[®] absorbent, and returned to landfill.

During the drum removal task 2,150 gallons of oily sludge, oil, and oily water were properly contained and shipped off site for disposal.

Removal of Additional Waste Streams

During the course of excavation, other wastes were encountered and subsequently removed from the landfill. The three additional waste streams were polychlorinated-biphenyl-contaminated light ballasts, lead batteries, and antifreeze. All items were properly packaged, labeled, and manifested for shipment to off-site waste management facilities.

Several broken batteries and a few intact batteries were discovered and set aside. The batteries were brought to the HWAP. The broken batteries were placed in large plastic totes, and labeled and manifested for disposal. The intact batteries were placed in open-top drums, and labeled and manifested for recycling. Over 4,400 pounds of intact and broken batteries were removed and shipped off-island for proper disposal or recycling. One drum full of light ballasts was shipped offsite for proper disposal.

One drum containing a small amount of antifreeze was discovered. The antifreeze was transferred to a new drum and sampled. The antifreeze was then labeled and manifested for proper disposal to an off-site waste management facility.

Stained Soil Removal

During the course of drum removal, damaged drums were encountered. The condition of some of the drums was such that, occasionally, product leaked onto the soil; that soil was excavated and removed. Oil-stained soil was also found in areas where drums were absent, and over 100 tons of petroleum, oil, and lubricants (POL)-contaminated soil were removed, placed in eight 20-foot containers, and manifested for off-island disposal.

Landfill Cap

Material hauling for the landfill cap began July 8, 2009, using two 40-ton rock trucks. The fill material was hauled from a formerly used borrow pit just south of the Main Operations Complex. Material was initially stockpiled at the landfill in areas that did not coincide with magnetic anomalies during the excavation and drum-removal phase. Capping activities began on July 28, 2009, and proceeded until August 14, 2009.

Bristol placed each section of fill material in a series of four lifts to a minimum thickness of 24 inches above the trash and debris. A lift was spread and repeatedly track-walked with the equipment prior to laying each subsequent lift (Photograph 5). Work progressed section by section, until the entire landfill was covered with fill material, tracked-walked, and graded. Appropriate grading was done to ensure minimal erosion of the cap. Grade was set by a dozer operator with oversight from the foreman and site superintendent.



Photograph 5. Laying down and track-walking 6-inch lifts for a minimum of a 24-inch landfill cap.

All miscellaneous debris, the washed and crushed drums that were returned to the landfill, and disturbed soil from the excavation task, were graded prior to the cap being placed. Grade played an important role in determining the thickness of the cap. As stated above, the minimum thickness of material overlying trash and debris was set at 24 inches; however, some of these areas required more material in order to set grade.

Quality control measures taken in the field to ensure appropriate cap thickness consisted of excavating test pits through the capping material to its interface with the debris. The thickness of the material was noted, and fill stakes were placed at all locations that required additional material (Photograph 6).



Photograph 6. Measurement showing a 2-foot-thick cap in a test pit in the landfill.

Professional land surveys were conducted before and after the completion of the Site 7 Landfill cap. The post-landfill cap survey is shown on Figure 5.

Stabilization and Revegetation

In addition to grading to encourage water runoff, seeding and fertilization were done to prevent erosion. Bristol performed final seeding of the landfill cap on August 13, 2009. The landfill cap was spread with native plant seed adapted to the St. Lawrence Island environment in accordance with the manufacturer's instructions. The seed mixture was approved by the Alaska Plant Materials Center and proportioned by weight: 70 percent tufted hairgrass and 30 percent red fescue.

Seed was applied at a uniform rate of one pound per 100 square feet. Fertilizer was applied at a rate of 450 pounds per acre, and had a nitrogen-phosphorus-potassium ratio of 20 percent nitrogen; 20 percent phosphorus; and 10 percent potassium. Bristol did not water seeded areas; however, seeding was completed during days of light precipitation. As of September 11, 2009, grass seed had taken root and was growing on the landfill cap (Photograph 7).



Photograph 7. Germinated grass seed on landfill (September 11, 2009).

Deed Notification

A document will be recorded with the Alaska Department of Natural Resources Recorder's Office in Fairbanks, Alaska. The intent of the document will be to place an institutional control on record to limit groundwater use, and prevent construction of buildings on top of the landfill. The legal description and recording district for the Site 7 Landfill used for indexing purposes at the Recorder's Office will be Cape Nome District: Township 25 South, Range 54 West, Section 15, North ½ South ½ of the Kateel River Meridian.

Request for Closure

Based on the information provided in this memorandum, Bristol formally requests that the Alaska Department of Environmental Conservation Contaminated Sites Program approve the closure of the Site 7 Landfill (Photograph 8). The USACE will visually monitor the capped area for settlement and erosion over the next five years, with additional periodic reviews as necessary.



Photograph 8. View looking north at the capped Site 7 Landfill (August 18, 2009).

NORTHEAST CAPE ST. LAWRENCE ISLAND
AREA 7 DUMPSITE
TOPOGRAPHIC SURVEY

2
N 3406599.5178
E 1814303.6993
ELEV. = 47.33
TBM A
N.E. SITE CORNER

"AS-BUILT" POST CONSTRUCTION
SURVEY CONDUCTED AUGUST 2009

****CAP EXTERIOR BOUNDARY****

LINE	BEARING	DISTANCE	L52	N73°07'35"E	26.60'
L1	N28°32'36"W	2.93'	L53	N79°30'05"E	26.08'
L2	N21°22'42"E	2.45'	L54	S61°54'38"E	26.14'
L3	N33°57'38"W	13.07'	L55	S79°23'12"E	17.67'
L4	N32°49'17"W	15.88'	L56	S47°57'04"E	16.94'
L5	N19°46'58"W	26.06'	L57	S34°24'23"E	9.44'
L6	N29°05'35"W	30.43'	L58	S34°44'55"E	13.63'
L7	N06°00'51"E	12.62'	L59	S89°38'11"E	5.37'
L8	N38°18'48"W	12.64'	L60	N50°32'36"E	6.62'
L9	N57°04'08"W	9.94'	L61	S51°27'08"E	7.36'
L10	S89°23'29"W	10.16'	L62	S01°04'55"E	8.93'
L11	N41°26'46"W	40.32'	L63	S66°26'11"E	3.77'
L12	N27°35'53"W	46.53'	L64	S50°49'49"E	6.93'
L13	N33°47'06"W	27.78'	L65	S46°27'39"E	9.54'
L14	N41°26'30"W	43.92'	L66	S53°18'19"E	10.28'
L15	N31°07'02"W	45.98'	L67	S31°48'16"E	5.40'
L16	N22°15'41"W	21.60'	L68	S72°29'07"E	27.14'
L17	N43°19'16"W	13.79'	L69	S46°57'44"W	76.81'
L18	N10°25'34"W	52.45'	L70	S42°37'30"E	9.65'
L19	N15°23'28"W	21.02'	L71	S50°02'17"E	9.55'
L20	N03°19'58"W	12.67'	L72	S13°58'06"E	7.41'
L21	N11°34'52"W	17.39'	L73	S03°08'19"E	19.72'
L22	N09°20'45"E	24.66'	L74	S47°51'29"W	23.91'
L23	N34°59'14"E	24.90'	L75	S07°57'25"W	29.46'
L24	N41°59'04"E	25.65'	L76	S14°40'57"W	23.19'
L25	N29°00'39"E	31.60'	L77	S46°39'26"W	20.55'
L26	N30°25'15"E	46.96'	L78	S45°43'44"W	13.39'
L27	N42°30'07"E	38.95'	L79	S42°01'07"W	11.15'
L28	N54°17'17"E	40.21'	L80	S44°27'48"W	27.23'
L29	N42°54'40"E	25.48'	L81	N87°39'22"W	7.63'
L30	N63°58'15"E	46.40'	L82	S20°01'34"W	22.02'
L31	S62°58'40"E	28.16'	L83	S23°50'30"E	14.71'
L32	N70°26'04"E	29.62'	L84	S03°27'53"W	56.29'
L33	N62°16'12"E	21.38'	L85	S01°49'55"W	22.11'
L34	S54°47'26"E	17.11'	L86	S27°03'15"W	15.87'
L35	S87°17'19"E	41.81'	L87	S53°07'43"W	39.00'
L36	S56°29'41"E	45.38'	L88	S61°25'12"W	54.00'
L37	S04°52'45"E	13.78'	L89	S64°38'43"W	57.97'
L38	S68°24'45"E	42.55'	L90	S83°03'01"W	42.26'
L39	N85°15'58"E	14.76'	L91	S68°28'15"W	22.79'
L40	S55°05'53"E	11.41'	L92	N62°42'14"W	21.90'
L41	S25°49'25"E	23.08'	L93	N83°38'44"W	54.22'
L42	S04°49'43"E	10.64'	L94	S82°07'16"W	45.99'
L43	S47°43'22"E	27.74'	L95	N85°33'28"W	11.81'
L44	S74°42'33"E	24.46'	L96	N52°28'10"W	35.08'
L45	S26°15'00"E	9.52'	L97	S74°47'15"W	54.31'
L46	S51°52'36"E	26.06'	L98	N33°53'49"W	26.34'
L47	S67°50'01"E	34.86'			
L48	N88°03'49"E	16.85'			
L49	S77°31'24"E	14.79'			
L50	S65°47'35"E	11.19'			
L51	S74°46'50"E	14.75'			

TOTAL SURFACE AREA:
342,832.52 SQ. FT./ 7.87 ACRES

*** SURVEYOR'S CERTIFICATE ***

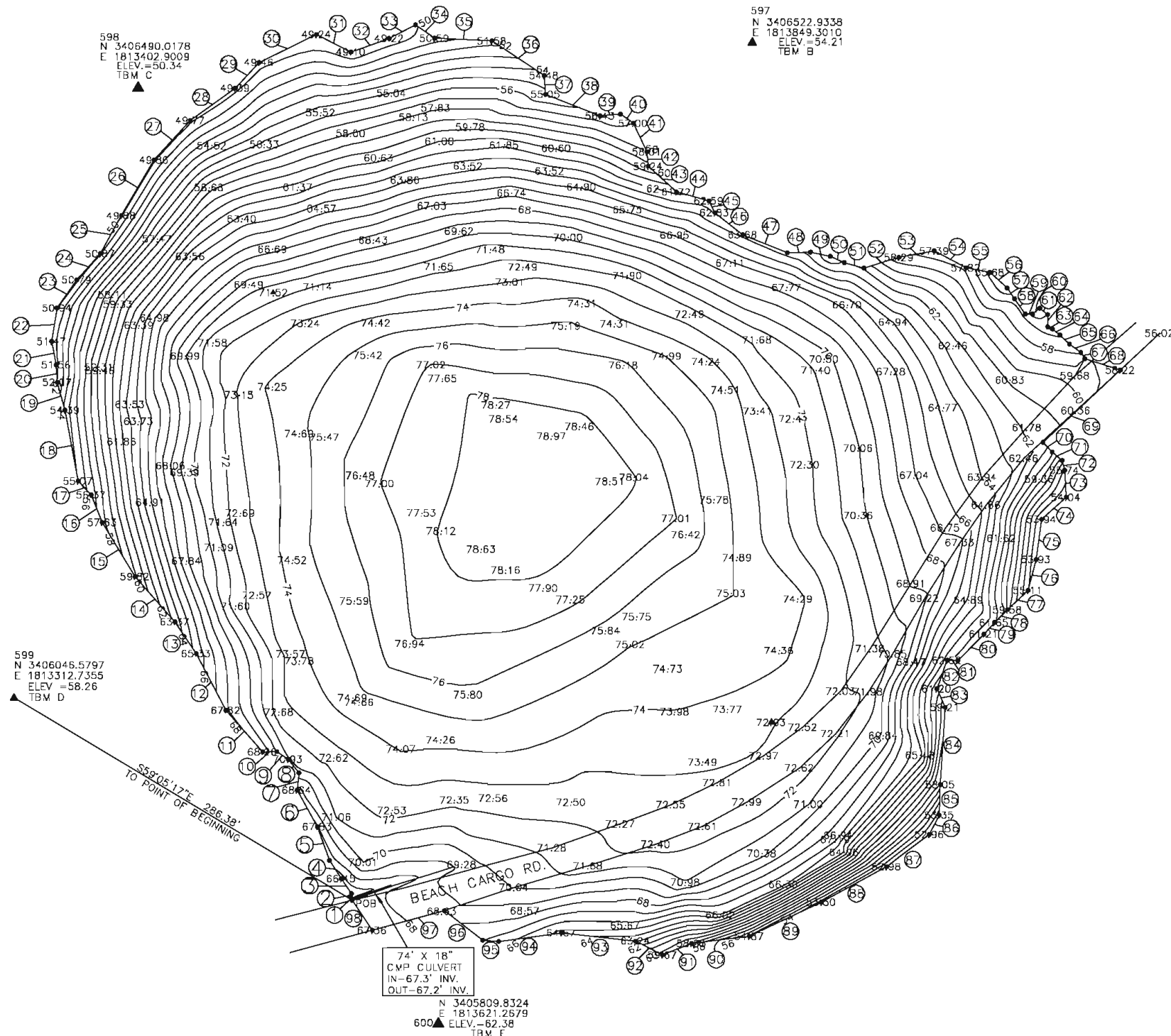
I HEREBY CERTIFY THAT I AM PROPERLY REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE MONUMENTS SHOWN HEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONS, RELATIVE BEARINGS, RELATIVE ELEVATIONS AND OTHER DETAILS ARE CORRECT.

DATE: 09/08/09

R. SCOTT MCCLINTOCK, SR.



SURVEYING & MAPPING
P.O. BOX 1444 NOME, ALASKA 99762
(907) 443-6068



**** LEGEND ****

- ② - INDICATES EXTERIOR CAP BOUNDARY LINE COURSE
- ▲ - INDICATES 5/8" X 30" REBAR CONTROL MONUMENT
- 55.52 - INDICATES SURVEYED SPOT ELEVATION

**** SURVEY NOTES ****

- THIS SURVEY WAS CONDUCTED USING RTK/GPS SURVEYING TECHNIQUES.
- COORDINATES ARE ALASKA STATE PLANE ZONE 9 REDUCED TO HORIZONTAL GROUND IN US SURVEY FEET.
- ELEVATIONS AND COORDINATES ARE BASED UPON A SINGLE POINT STATIC OBSERVATION USING NGS OPUS SOLUTION.
- CONTOUR INTERVAL IS ONE FOOT.

APPENDIX H

Chemical Data Quality Report, ADEC Laboratory Certification, and ADEC Checklists

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ACRONYMS AND ABBREVIATIONS

ADEC	Alaska Department of Environmental Conservation
Bristol	Bristol Environmental Remediation Services, LLC
BTEX	benzene, toluene, ethylbenzene, and xylenes
CLP	Contract Laboratory Program
CoC	chain-of-custody
DQO	data quality objective
DRO	diesel-range organics
EPA	U.S. Environmental Protection Agency
GRO	gasoline-range organics
HTRW	Hazardous, Toxic, and Radioactive Waste
ISCO	In-Situ Chemical Oxidation
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
MBs	method blanks
MDL	method detection limit
MS	matrix spike
MSD	matrix spike duplicate
NE Cape	Northeast Cape
PAH	polynuclear aromatic hydrocarbon
PCBs	polychlorinated biphenyls
PQL	practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	quality control
Report	Data Verification Report
RL	reporting limit
RPD	relative percent difference
RRO	residual-range organics
SAP	Sampling and Analysis Plan
SW	U.S. EPA Solid Waste Method

ACRONYMS AND ABBREVIATIONS (continued)

TCLP	Toxicity Characterization Leaching Procedure
TCMX	tetrachlorometaxylene
TestAmerica	TestAmerica Laboratories, Inc.
TSDf	treatment, storage, and disposal facility
USACE	U.S. Army Corps of Engineers
VOC	volatile organic compound

1.0 INTRODUCTION

This Data Verification Report (Report) has been completed on the submitted data packages in accordance with an agreement between Bristol Environmental Remediation Services, LLC (Bristol), and the U.S. Army Corps of Engineers (USACE). As per this agreement, all laboratory results were generated as part of work on the In-Situ Chemical Oxidation (ISCO) Phase I and Intrusive Drum Removal/Landfill Cap – Northeast Cape (NE Cape), St. Lawrence Island, Alaska. The USACE assigned this project to Bristol under Contract No. W911KB-09-C-0013.

Data verification for this report was performed on the data collected as part of the excavation and drum removal tasks at Site 7 at NE Cape in 2009. Data verification is a process for evaluating the completeness, correctness, consistency, compliance with method procedures and quality control (QC) requirements, and identification of anomalous data. The reported project sample values, as well as any method laboratory control samples extracted or prepared with the project samples were reviewed. Specifically, the following items were reviewed in this data verification:

- Sample receipt conditions:
 - Sample preservation,
 - Cooler temperatures upon receipt,
 - Chain-of-custody (CoC) condition/correspondence to submitted sample set, and
 - Presence/absence of custody seals.
- Extraction and analytical procedures:
 - Holding times,
 - Method blanks (MBs),
 - Laboratory control samples (LCSs)/laboratory control sample duplicates (LCSDs),
 - Matrix spike (MS)/matrix spike duplicate (MSD),
 - Duplicate samples, and
 - Surrogate recoveries.
- Sampling procedures:
 - Field blanks,
 - Trip blanks,

- Equipment blanks, and
- Field duplicate samples.
- Correspondence to method criteria and project data quality objectives (DQOs)

Unless otherwise discussed in this document, the above parameters were within Sampling and Analysis Plan (SAP)/method criteria, and were within SAP specified control limits.

No information on internal standards, calibrations, instrument tunes, chromatograms, quantitation reports, spectra, summaries identifying any analytical irregularities and the subsequent corrective action taken by the laboratories, and results from any other analytical procedures other than those listed above were reviewed per SAP requirements, and they are not addressed in this Report.

Data verification was performed in accordance with:

- *The ISCO Phase I and Intrusive Drum Removal/Landfill Cap – NE Cape SAP, Revision 1* (July 2009);
- EM 200-1-6, *Chemical Quality Assurance of Hazardous, Toxic, and Radioactive Waste (HTRW) Projects* (USACE, 1997);
- *Department of Defense (DoD) Quality Systems Manual*, Version 3, Final (2006);
- ER 1110-1-263, *Chemical Data Quality Management for HTRW Remedial Activities* (April 1998); and
- Alaska Department of Environmental Conservation (ADEC) Technical Memorandum: *Environmental Laboratory and Quality Assurance Requirements* (Updated March 2009).

Precision and accuracy were assessed by comparing surrogate, MS/MSD and LCS/LCSD recoveries and relative percent differences (RPDs) to the SAP-specified control limits. The frequency of QC samples was compared to the frequency specified in the SAP. The MS/MSDs performed on non-project samples are not applicable, and were not evaluated.

The reviewed data sets include data collected for the NE Cape ISCO Study and Drum Removal in August 2009 and analyzed by TestAmerica Laboratories, Inc., (TestAmerica) Tacoma, Washington. TestAmerica analyzed the samples for the following compounds:

- Toxicity Characterization Leaching Procedure (TCLP) benzene by U.S. Environmental Protection Agency (EPA) Solid Waste (SW-846) Method 1311/5030B/8260B;
- TCLP volatile organic compounds (VOCs) by SW-846 method 1311/5030B/8260B;
- Polychlorinated biphenyls (PCBs) by SW-846 method 3550/8082;
- PCBs by SW-846 method 3580A/8082;
- Diesel-range organics (DRO) by ADEC method AK102;
- TCLP Metals by SW-846 method 1311/3010A/6010B;
- Total Metals by SW-846 method 6020
- TCLP mercury by SW-846 method 1311/7470A;
- Total halogens by SW-846 method 9076;
- Flash Point by SW-846 1020A;
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by SW-846 method 8260B;
- Gasoline-range organics (GRO) by ADEC method AK101;
- DRO and residual-range organics (RRO) by ADEC method AK102/103;
- Polynuclear aromatic hydrocarbons (PAHs) by SW-846 method 3510C/8270C;
- Metals by SW-846 method 6010B; and
- Mercury by SW-846 method 7471A/7470A.

TestAmerica transferred samples to their laboratories in Edison, New Jersey, for analyses of the following:

- Ethylene glycol by SW-846 8015B.

The requested methods for TCLP mercury, 7471A, and TCLP Metals 6010, on the CoC forms, differed from those reported (7470A and 6010B). The methods reported are appropriate for a TCLP leachate, and data quality is not affected.

The requested method for metals, 6010A, on the CoC forms differed from those reported, 6010B. This method is appropriate for analysis of metals, and data quality is not affected.

The method for total halogens in waste oil on the CoC form for SDG 580-14839, EPA SW9056, differed from what was reported by TestAmerica. TestAmerica reported total halogens by method 9076. The SAP had listed EPA method 9020 for total halogens, which is not the appropriate method for total halogens in oil. After the Bristol project chemist

conferred with the TestAmerica laboratory project manager and the USACE project chemist, approval was given via e-mail by the USACE project chemist, to analyze total halogens in waste oil by method 9076. One drummed waste oil sample and a field duplicate were analyzed by method 9076.

The sampling event and laboratory work order numbers are presented in Table 1-0.

Table 1-0 Laboratory Work Order Numbers

Sampling Event	Sample Matrix	Work Order Number
NE Cape ISCO Study and Drum Removal – Waste Characterization	Soils	580-14827-1
	Soils	580-14977-1
	Soils, Oil, sludge, and antifreeze	580-14839-1
NE Cape ISCO Study and Drum Removal – Drum Pad Sampling	Soils	580-14430-1
	Water	580-14747-1
	Water	580-14863-1
	Soils	580-15052-1

Notes:

ISCO = In-situ Chemical Oxidation

NE Cape = Northeast Cape

Analytical results tables are presented in Appendix I. The tables include sample IDs, which reference the year (09), the project (NC) for NE Cape, the site (-007 for site 7), the matrix (SB for soil boring) and the sample location or LocID. The LocID indicates the specific site at NE Cape, as well as a specific location within the sites. LocIDs may be used more than once such as the pre- and post-construction soil borings at site 7, which use the same LocID for differing sample events. Sample locations were collected on Global Positioning System. LocIDs were also used for waste characterization of drum samples, which corresponded to specific drums and not stationary locations.

The following data qualifiers may be used to identify data points when data verification determines that results should be qualified because of a potential bias in the result, or a deviation from method or SAP QC procedures:

- J – The analyte was positively identified; the quantitation is an estimation.
- U – The analyte was analyzed for, but not detected at the method detection limit (MDL).
- R – The data are unusable because of deficiencies in the ability to analyze the sample and meet QC criteria.
- B – The analyte was detected above one-half the reporting limit (RL) in an associated blank.
- M – A matrix effect was present.
- QH, QL – one or more QC criteria, such as a surrogate or LCS recovery failed with high or low bias.
- NP – A second, more technically valid result was reported. NP-qualified results should be disregarded.

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2.0 DATA VERIFICATION

A total of 22 waste characterization samples, which included 12 soil samples (includes one field duplicate), 2 oil samples (includes one field duplicate), 4 sludge samples (includes one field duplicate), 2 antifreeze samples (includes one field duplicate), 1 ash sample, and 1 trip blank, were collected in August 2009 and submitted to TestAmerica for analysis.

A total of 9 soil drum pad samples, which included 7 soil samples, two field duplicates and one trip blank, were collected in July and August 2009 and submitted to TestAmerica for analysis.

A total of 6 water drum pad samples, which included 2 water samples, 2 field duplicates, and two trip blanks, were collected in August 2009 and submitted to TestAmerica for analysis.

Field sample numbers, corresponding laboratory numbers, and analyses are presented in Table 2-0.1 for the waste characterization samples, and in Table 2-0.2 for the drum pad samples.

Table 2-0.1 Waste Characterization Samples

Field Sample Identification	Laboratory Sample Number	TCLP Benzene (1311/8260B)	PCBs (8082)	DRO (AK102)	TCLP Metals (6010B)	TCLP Mercury (7470A)	TCLP VOCs (1311/8260B)	Total Metals (6020)	Ethylene Glycol (8015B)	Total Halogens (9076)	Flash Point (1020A)	Remarks
Soil Samples												
09NC007BW01	580-14827-1	X	X	X	X	X						MS/MSD for DRO, PCBs, metals, mercury
09NC007BW02	580-14827-2	X	X	X	X	X						
09NC007BW03	580-14827-3	X	X	X	X	X						
09NC007BW04	580-14827-4	X	X	X	X	X						Field duplicate of 09NC007BW03
09NC007BW05	580-14827-5	X	X	X	X	X						
09NC007BW06	580-14827-6	X	X	X	X	X						
09NC007BW07	580-14827-7	X	X	X	X	X						
09NC007BW08	580-14827-8	X	X	X	X	X						
09NC007BW09	580-14839-7	X	X	X	X	X						MS/MSD DRO
09NC007BW10	580-14839-8	X	X	X	X	X						
09NC007BW11	580-14839-9	X	X	X	X	X						Field duplicate of 09NC007BW10
09NC007BW12	580-14839-10	X	X	X	X	X						
Trip Blank	580-14839-13	X										
Ash Samples												
Camp Ash	580-14977-1				X	X						MS/MSD for metals and mercury
Oil Samples												
09NC007DW01	580-14839-1		X				X	X		X	X	MS VOCs

Table 2-0.1 Waste Characterization Samples (continued)

Field Sample Identification	Laboratory Sample Number	TCLP Benzene (1311/8260B)	PCBs (8082)	DRO (AK102)	TCLP Metals (6010B)	TCLP Mercury (7470A)	TCLP VOCs (1311/8260B)	Total Metals (6020)	Ethylene Glycol (8015B)	Total Halogens (9076)	Flash Point (1020A)	Remarks
Oil Samples												
09NC007DW02	580-14839-2		X				X	X		X	X	Field duplicate of 09NC007DW01
Sludge Samples												
09NC007DW03	580-14839-3		X		X	X	X					MS/MSD PCBs, metals, mercury
09NC007DW04	580-14839-4		X		X	X	X					Field duplicate of 09NC007DW03
09NC007DW05	580-14839-5		X		X	X	X					
09NC007DW06	580-14839-6		X		X	X	X					
Antifreeze												
09NC007DW07	580-14839-11	X			X	X			X			
09NC007DW08	580-14839-12	X			X	X			X			Field duplicate of 09NC007DW07

Notes:

AK = State of Alaska Method
DRO = diesel range organics
MS = matrix spike
MSD = matrix spike duplicate

PCBs = polychlorinated biphenyls
TCLP = Toxicity Characteristic Leaching Procedure
VOCs = volatile organic compounds

Table 2-0.2 Drum Pad Samples

Field Sample Identification	Laboratory Sample Number	BTEX (8260B)	PCBs (8082)	DRO/RRO (AK102/RRO)	GRO (AK101)	Mercury (7471A/7470A)	Metals (6010B)	PAHs (8270C)	Ethylene Glycol (8015B)	Total Metals (6020)	Remarks
Soil											
09NC007SB01	580-14430-1	X	X	X	X	X	X				MS/MSD for BTEX, MTBE, GRO, PCBs, DRO/RRO, metals, and mercury
09NC007SB02	580-14430-2	X	X	X	X	X	X				
09NC007SB03	580-14430-3	X	X	X	X	X	X				Field duplicate of 09NC007SB02
09NC007SB04	580-14430-4	X	X	X	X	X	X				
09NC007SB05	580-15052-1	X	X	X	X	X	X				MS/MSD for BTEX, MTBE, GRO, PCBs, DRO/RRO, metals, and mercury
09NC007SB06	580-15052-2	X	X	X	X	X	X				Field duplicate of 09NC007SB05
09NC007SB07	580-15052-3	X	X	X	X	X	X				
09NC007SB08	580-15052-4	X	X	X	X	X	X				
Trip Blank	580-15052-5	X			X						
Water											
09NC007WA01	580-14747-1	X	X			X		X	X	X	MS/MSD for BTEX, PAHs, ethylene glycol, total metals, and mercury. MS for PCBs
09NC007WA02	580-14747-2	X	X			X		X	X	X	Field duplicate of 09NC007WA01

Table 2-0.2 Drum Pad Samples (continued)

Field Sample Identification	Laboratory Sample Number	BTEX (8260B)	PCBs (8082)	DRO/RRO (AK102/RRO)	GRO (AK101)	Mercury (7471A/7470A)	Metals (6010B)	PAHs (8270C)	Ethylene Glycol (8015B)	Total Metals (6020)	Remarks
Water											
Trip Blank	580-14747-3	X									
09NC007WA03	580-14863-1	X	X			X		X	X	X	MS/MSD for BTEX, PAHs, PCBs, ethylene glycol, total metals, and mercury
09NC007WA04	580-14863-2	X	X			X		X	X	X	Field duplicate of 09NC007WA03
Trip Blank	580-14863-3	X									

Notes:

AK = State of Alaska Method
BTEX = benzene, toluene, ethylbenzene, and xylenes
DRO = diesel-range organics
GRO = gasoline-range organics
MS = matrix spike

MSD = matrix spike duplicate
MTBE = methyl-tert butyl ether
PAHs = polynuclear aromatic hydrocarbons
PCBs = polychlorinated biphenyls
RRO = residual-range organics

2.1 SAMPLE RECEIPT CONDITIONS

All drum pad and waste characterization samples were received within 0-6 degrees Celsius, and in good condition.

2.2 TCLP BENZENE ANALYSIS

TestAmerica analyzed soil waste characterization samples for TCLP benzene by method SW-846 1311/8260B. The leachate and analytical batches are summarized in Table 2-2-1.

Table 2-2.1 TCLP Benzene QC Batches

Leachate Batch	Leachate Extraction Date	Associated Analytical Batches	Analysis Date(s)
48166	8-12-2009	580-48286	8-13,14-2009
48166	8-12-2009	580-48362	8-14-2009
48166	8-12-2009	580-48207	8-13-2009
48010	8-10-2009	580-48207	8-12,13-2009

Notes:

QC = quality control

TCLP = Toxicity Characteristic Leaching Procedure

Required QC for an analytical batch of up to 20 samples includes an MB, an LCS, and a laboratory duplicate. Blind field duplicates were also submitted as part of the project QC, and their precision is discussed further in Section 2-18 for SDGs 580-14839 and -14827. An MB and LCS were extracted with each batch.

The following items were reviewed and met Quality Assurance Project Plan (QAPP)/method criteria, and were within laboratory control limits: holding times, MBs, surrogate recoveries, and LCS recoveries.

Precision could not be evaluated in analytical batches 48286 or 48207 due to instrument problems, which precluded the analysis of the batch duplicate and MS that were extracted in leachate batch 48166. The leachate-extraction batch duplicate was analyzed in analytical batch 48286 and it met RPD limits. The MS met recovery limits.

2.3 TCLP VOC ANALYSIS

TestAmerica analyzed oil and sludge waste characterization samples for TCLP VOCs by method SW-846 1311/8260B. The analytical batches are summarized in Table 2-3-1.

Table 2-3.1 TCLP VOC QC Batches

Leachate Batch	Leachate Extraction Date	Associated Analytical Batches	Analysis Dates
48166	8-12-2009	580-48362	8-14-2009

Notes:

QC = quality control
TCLP = Toxicity Characteristic Leaching Procedure
VOC = volatile organic compound

Required QC for an analytical batch of up to 20 samples includes an MB and an LCS, and a laboratory duplicate. An MB, an LCS and a laboratory duplicate were performed with each batch. All QC met acceptance criteria.

The following items were reviewed and met QAPP/method criteria, and were within laboratory control limits: holding times, MBs, surrogate recoveries, and LCS recoveries.

2.4 ETHYLENE GLYCOL ANALYSIS

TestAmerica in Edison, New Jersey, analyzed antifreeze in water samples for ethylene glycol by method SW-846 8015B. The TestAmerica laboratory in Edison, New Jersey, is not a DoD-certified laboratory. The laboratory was used for the glycol analysis due to its capacity and capability of reporting sample results on an expedited turnaround time. The analytical batches are summarized in Table 2-4-1.

Table 2-4.1 Ethylene Glycol QC Batches

QC Batch	QC Batch Dates
Antifreeze	
460-14011	8-11-2009
Water	
460-13578	8-6-2009
460-14220	8-13-2009

Notes:

QC = quality control

Required QC for an analytical batch of up to 20 samples includes an MB, LCS, and MS/MSD pair (water samples only). An MB, LCS, and MS/MSD pair (water samples only) were performed with each batch.

The following items were reviewed and met QAPP/method criteria, and were within laboratory control limits: holding times, MBs, LCS recoveries and RPDs, and MS/MSD recoveries and RPDs.

The recovery of the surrogate 1-Pentanol was less than the 52-122% acceptance criteria in samples 09NC007WA01 (24%) and 09NC007WA02 (49%). The case narrative for SDGs 580-14747 and -14863 noted the samples were incorrectly preserved with hydrochloric acid, which degrades 1-Pentanol. The effect of HCL on ethylene glycol was not determined. The results in these samples are QL qualified to indicate a potential low bias, and results are considered estimates. The data is usable as qualified.

2.5 BTEX ANALYSES

TestAmerica analyzed soil and water drum pad samples for BTEX by SW-846 method 8260B. The sample QC batches are summarized in Table 2-5.1.

Table 2-5.1 BTEX QC Batches

QC Batch	QC Batch Date
Soil	
580-46620	7-16-2009
580-49225	8-27-2009
Water	
580-47735	8-6-2009
580-48159	8-8-2009

Notes:

BTEX = benzene, toluene, ethylbenzene, and xylenes

QC = quality control

Required QC for an analytical batch of up to 20 samples includes an MB, LCS, and MS/MSD pair. An MB, LCS, and MS/MSD pair were analyzed with each batch.

The following items were reviewed and met QAPP/method criteria and were within laboratory control limits: holding times, surrogate recoveries, LCS recoveries and RPDs, and MS/MSD recoveries and RPDs.

Aromatic hydrocarbons m-Xylene & P-xylene were detected at a concentration greater than the MDL, but less than one-half the RL in the MB for QC batch 580-48159. In addition, m-Xylene & p-xylene were detected at similar concentrations in the associated samples (09NC007WA03, 09NC007WA04, and trip blank), and results are B qualified to indicate the result is indistinguishable from blank contamination.

Methyl tert-butyl ether was reported with the BTEX results in QC batch 580-46620.

2.6 GRO ANALYSES

TestAmerica analyzed soil drum pad samples for GRO by ADEC method AK101. The soil sample analytical batches are summarized in Table 2-6.1.

Table 2-6.1 GRO QC Batches

QC Batch	QC Batch Date
580-46620	7-16-2009
580-49298	8-28-2009

Notes:

GRO = gasoline-range organics

QC = quality control

Required QC for an analytical batch of up to 20 samples includes an MB, LCS, and MS/MSD pair. An MB, LCS/LCSD pair, and MS/MSD pair were performed with each batch.

The following items were reviewed and met QAPP/method criteria, and were within laboratory control limits: holding times, surrogate recoveries, LCS recoveries and RPDs, and MS/MSD recoveries and RPDs.

Gasoline-range organics were detected in the MB at a concentration (1.1 milligrams per kilogram) greater than the MDL, but less than one-half the RL in QC batch 580-46620. The GRO concentrations in all samples associated with this MB were greater than 10 times the RL, with the exception of GRO results in samples 09NC007SB01 and 09NC007SB04. The GRO results in samples 09NC007SB01 and 09NC007SB04 were similar to the MB concentrations, and are therefore B qualified to indicate they are not distinguishable from blank contamination.

2.7 PCB ANALYSES

TestAmerica analyzed soil, sludge, water, and oil samples by method SW-846 8082. The extraction batches are summarized in Table 2-7-1.

Table 2-7.1 PCB QC Batches

QC Batch	QC Batch Dates
Soil	
580-46500	7-15-2009
580-49199	8-27-2009
580-47990	8-10-2009
Oil	
580-48136	8-12-2009
Sludge	
580-48026	8-11-2009
Water	
580-47694	8-6-2009
580-48269	8-13-2009

Notes:

PCB = polychlorinated biphenyl
QC = quality control

Required QC for an analytical batch of up to 20 samples includes an MB, LCS, and MS/MSD pair. An MB, LCS, and MS/MSD pair were performed with each soil and water QC batch. MS/MSD samples were not submitted or extracted with the oil samples in QC Batch 580-48136.

The following items were reviewed and met QAPP/method criteria, and were within laboratory control limits: holding times, MBs, and LCS recoveries.

An MS/MSD was performed on sample 09NC007SB01 in QC batch 580-46500. Recoveries were within QC acceptance criteria, but the 23% RPD for PCB-1260 was greater than the 20% acceptance criteria. PCB-1260 was not detected in the associated samples, and qualification is not necessary.

An MS/MSD was performed on sample 09NC007BW01 for QC batch 580-47990. PCB-1260 was not recovered in the MS or MSD. PCB-1260 was detected in all associated results, and results for samples in this QC batch are M qualified to indicate a potential matrix effect. Recoveries and the RPD for PCB-1016 were within QC limits.

An MS/MSD was performed on sample 09NC007DW03 in QC batch 580-48026. Aroclor[®] 1248 was detected at a concentration above the calibration limit; therefore, spike recoveries and RPDs could not be evaluated in the MS/MSD samples due to target analyte interference. No other Aroclors were detected in the undiluted parent sample. Surrogates were not reported for samples 09NC007DW03 and 09NC007DW04 due to dilutions in the presence of high-target analytes; therefore, recoveries could not be evaluated. Samples -DW03 and -DW04 were field duplicates and met RPD limits for reporting as noted in Section 2.18. DW03 and DW04 were analyzed and quantitated using a single injection and dual detectors with dissimilar columns. The quantitation on the differing columns had greater than 40% RPD for Aroclor 1248, which indicates a lower degree of accuracy. The Aroclor 1248 results are J flagged as estimates. The results are usable with qualification.

SDG 580-14839 included drummed waste soil samples 09NC007BW09 through – BW12 for PCB analyses. The laboratory did not analyze or report percent solids on the soil samples due to laboratory error. The results are flagged as estimates. While regulations require reporting on a dry-weight basis, the sample results were accepted by the treatment, storage, and disposal facility (TSDF) for disposal purposes.

The 55% recovery of surrogate decachlorobiphenyl in sample 09NC007BW04 was less than the 60-125% acceptance limit. All PCB results in this sample were ML/UML qualified to indicate a potential low bias due to matrix effects.

The 30% recovery of surrogate decachlorobiphenyl in sample 09NC008SB02 was less than the 60-125% acceptance limit. The recovery of the secondary surrogate, tetrachlorometaxylene (TCMX), was within control limits; matrix interference is suspected. All PCB results for –SB02 are ML/UML qualified to indicate a potential low bias.

The 37% recovery of surrogate decachlorobiphenyl in sample 09NC008SB03 was less than the 60-125% acceptance limit. The recovery of the secondary surrogate TCMX was within control limits. All PCB results in this sample are ML/UML qualified to indicate a potential low bias and are likely attributed to matrix interference. Samples 09NC008SB02 and 09NC007SB03 were field duplicates and both had similar low bias effects on decachlorobiphenyl. The SB03 result was reported at a higher concentration and actions were based on the higher result. The duplicate analyses are discussed further in Section 2.18.

The 59% recoveries of surrogate tetrachloro-m-xylene in samples 09NC007WA01 (59%) and 09NC007WA02 (58%) were less than the 60-150% acceptance limit. Recoveries of surrogate decachlorobiphenyl, which is more closely associated with PCBs, were within acceptance criteria. Qualification is not necessary.

2.8 PAH ANALYSES

TestAmerica analyzed water samples by method SW-846 8270C for PAHs. The extraction batches are summarized in Table 2-8-1.

Table 2-8.1 PAH QC Batches

QC Batch	QC Batch Dates
580-47740	8-5-2009
580-48266	8-13-2009
580-48492	8-17-2009

Notes:

PAH = polynuclear aromatic hydrocarbons

QC = quality control

Required QC for an analytical batch of up to 20 samples includes an MB, LCS, and MS/MSD pair. An MB, LCS, and MS/MSD pair were performed with each batch.

The following items were reviewed and met QAPP/method criteria, and were within laboratory control limits: holding times, MBs, and LCS recoveries.

Samples 09NC007WA03 and 09NC007WA04 were originally prepared in QC batch 580-48266, within the 7-day holding time for water samples. Phenanthrene, anthracene, fluoranthene, and pyrene were detected in the MB at concentrations greater than the MDL,

but less than half of the RL. Phenanthrene and anthracene results were greater than the RL, but less than 10 times the concentration detected in the MB and those results are B flagged.

The LCS recoveries in QC batch 580-48266 were greater than the acceptance criteria for 2-Methylnaphthalene, acenaphthylene, fluorene, fluoranthene, benzo(a) anthracene, chrysene, benzo(b)fluoranthene, and benzo(a)pyrene. Acenaphthylene, acenaphthene, fluorene, fluoranthene, and benzo(a)anthracene MS or MSD recoveries in QC batch 580-48266 were greater than the acceptance criteria. All samples and the MS/MSD were re-prepped 2 days past the 7-day holding time in QC batch 580-48492. Because the batch QC exceedences in the original extraction had minimal effect on results, the original results are preferred. All positive results for analytes that exceeded the LCS or MS/MSD control limits are QH qualified.

The 115% recovery of surrogate nitrobenzene-d5 was greater than the 40-110% acceptance criteria in the analysis of sample 09NC007WA04. Positive sample results are flagged QH to indicate a potential high bias due to the high surrogate recovery.

Pyrene was detected in the MB for QC batch 580-47740 at a concentration greater than the MDL, but less than one-half the RL. Pyrene detections in the associated samples were more than 10 times greater than the concentration detected in the MB, and qualification was not necessary. Phenanthrene, anthracene, fluoranthene, and pyrene were detected in the MB in batch 580-48266 at a concentration greater than the MDL, but less than one-half the RL. Phenanthrene sample results for 09NC007WA03 and phenanthrene, anthracene, and 09NC007WA04 were B flagged because the sample concentrations were less than 10 times the concentration reported in the MB.

An MS/MSD was performed on sample 09NC007WA01 in QC batch 580-47740. The 127% recovery of dibenz(a,h)anthracene was greater than the 40-125 acceptance limit. The dibenz(a,h)anthracene results in the associated samples are M qualified.

2.9 DRO ANALYSES

TestAmerica analyzed the soil waste characterization samples for DRO by ADEC method AK102. The QC batches are summarized in Table 2-9.1.

Table 2-9.1 DRO QC Batches

QC Batch	QC Batch Date
580-46508	7-15-2009
580-47981	8-10-2009
580-48045	8-11-2009
580-49032	8-25-2009

Notes:

DRO = diesel-range organics

QC = quality control

Required QC for a batch of up to 20 samples includes an MB, LCS and LCSD, and MS/MSD pair. An MB, MS/MSD, and LCS/LCSD were analyzed with each batch.

The following items were reviewed and met QAPP/method criteria, and were within laboratory control limits: holding times, MBs, surrogate recoveries, LCS/LCSD recoveries and RPDs, and MS/MSD recoveries and RPDs

Surrogates were diluted out in the analyses of samples 09NC007SB05, 09NC007SB06, 09NC007BW10, 09NC007BW11, and recoveries could not be evaluated. The DRO surrogate had a high recovery in sample 09NC007SB03, which was analyzed at a 1/50 dilution. Sample results are flagged JH to indicate a potential high bias due to the surrogate recovery. The MB surrogate recovery in extraction batch 580-46874 exceeded the recovery limit. Sample surrogate recoveries were within limits or diluted, no flags were assigned.

An MS/MSD was performed on sample 09NC007BW09 in QC batch 580-48045 and sample 09NC007SB05 in QC batch 49032. The MS/MSD recoveries in samples –SB05 and –BW09 were outside of acceptance limits due to the presence of high concentrations of target analytes. The DRO concentrations in the parent sample were greater than 10 times the spiking concentration. No flags were assigned based on MS/MSD recoveries.

SDG 580-14839 included drummed waste soil samples 09NC007BW09 through –BW12 for DRO analyses. The laboratory did not analyze or report percent solids on the soil samples due to laboratory error. The results are flagged as estimates. While regulations require reporting on a dry-weight basis, the sample results were accepted by the TSDF facility for disposal purposes.

2.10 RRO ANALYSES

TestAmerica analyzed the soil samples from the drum pad for RRO by ADEC method AK103. The QC batches are summarized in Table 2-10.1.

Table 2-10.1 DRO QC Batches

QC Batch	QC Batch Date
580-46508	7-15-2009
580-49032	8-25-2009

Notes:

DRO = diesel-range organics

QC = quality control

Required QC for a batch of up to 20 samples includes an MB, LCS and LCSD, and MS/MSD pair. An MB, MS/MSD, and LCS/LCSD were analyzed with each batch.

The following items were reviewed and met QAPP/method criteria, and were within laboratory control limits: holding times, MBs, LCS/LCSD recoveries and RPDs, and MS/MSD recoveries and RPDs.

Surrogates were diluted out in the analysis of samples 09NS007SB02, 09NC007SB03, 09NC007SB05, and 09NC007SB06. Recoveries could not be evaluated. An MS/MSD was performed on sample 09NC007SB01 in QC batch 46508. The DRO recoveries in the MS and RPD for 09NC007SB01 were within acceptance limits; the DRO recovery in the MSD failed low. DRO/RRO surrogate recoveries were within limits for the MS/MSD. The RRO sample concentration in sample 09NC007SB01 was greater than four times the spiking concentration, and RRO recoveries were not evaluated. An MS/MSD was performed on sample 09NC007SB05 in QC batch 49032. The sample RRO concentrations were greater than four times the spiking concentration; samples were analyzed at a dilution and spike recoveries were not evaluated.

2.11 TCLP METALS ANALYSES

TestAmerica analyzed soil and sludge samples for TCLP metals by SW-846 method 1311/6010B. The QC batches are summarized in Table 2-11.1.

Table 2-11.1 Metals QC Batches

QC Batch	QC Batch Date
580-48056	8-11-2009
580-48580	8-18-2009
580-48153	8-12-2009

Note:

QC = quality control

Required QC for a batch of up to 20 samples includes an MB and LCS. An MB, MS/MSD, and LCS were analyzed per batch.

The following items were reviewed and met SAP criteria, and were within laboratory control limits: MS/MSD recoveries and RPDs, and LCS/LCSD recoveries and RPDs.

In QC batch 580-48056, selenium was detected in the MB at a concentration greater than the MDL, but less than one-half the RL. Selenium also was detected in samples 09NC007BW03 and 09NC007BW08 associated with this QC batch. The selenium results in these samples are B qualified to indicate selenium also was detected in the MB, and may be associated with method contamination.

In QC batch 580-48580, barium was detected in the MB at a concentration greater than the MDL and greater than one-half the RL. Barium was detected in sample Camp Ash at a concentration 30 times the RL and MB concentration. Therefore, qualification is not necessary.

2.12 TOTAL METALS ANALYSES

TestAmerica analyzed oil and water samples for total metals by SW-846 method 6020. The QC batches are summarized in Table 2-12.1.

Table 2-12.1 Total Metals QC Batches

QC Batch	QC Batch Date
Oil	
580-48076	8-11-2009
Water	
580-47707	8-5-2009
580-48250	8-13-2009

Note:

QC = quality control

Required QC for a batch of up to 20 samples includes an MB, LCS, and MS/MSD pair. An MB, MS/MSD, and LCS/LCSD were analyzed per batch.

The LCS/LCSD recoveries and RPDs were reviewed and met SAP criteria, and were within laboratory control limits. The lead MS/MSD on sample 09NC007DW01 in QC batch 580-48076 failed to meet acceptance criteria. The initial sample concentration was greater than 4 times the spike concentration; therefore, percent recovery and RPD were not evaluated.

In QC batch 580-48076, lead was detected in the MB at a concentration greater than the MDL, but less than one-half the RL. Lead was detected in associated samples at concentrations greater than 500 times the RL and MB concentration. Therefore, qualification is not necessary.

2.13 METALS ANALYSES

TestAmerica analyzed soil samples for metals by SW-846 method 6010B. The QC batches are summarized in Table 2-13.1.

Table 2-13.1 Metals QC Batches

QC Batch	QC Batch Date
580-46944	7-23-2009
580-49494	9-01-2009

Note:

QC = quality control

Required QC for a batch of up to 20 samples includes an MB, LCS, and MS/MSD pair. An MB, MS/MSD, and LCS/LCSD were analyzed per batch.

The following items were reviewed and met SAP criteria, and were within laboratory control limits: MS/MSD recoveries and RPDs, and LCS/LCSD recoveries and RPDs.

In QC batch 580-46944, chromium and lead were detected in the MB at concentrations greater than the MDL, but less than one-half the RL. These metals were detected in associated samples at concentrations more than 10 times greater than the MB; therefore, qualification is not necessary.

In QC batch 580-49494, chromium and selenium were detected in the MB at concentrations greater than the MDL, but less than one-half the RL. These metals were detected in associated samples at concentrations greater than the RL. Therefore, qualification is not necessary.

2.14 TCLP MERCURY ANALYSES

TestAmerica analyzed soil and sludge samples for TCLP mercury by SW-846 method 1311/7470A. The QC batches are summarized in Table 2-14.1.

Table 2-14.1 Metals QC Batches

QC Batch	QC Batch Date
580-48049	8-11-2009
580-48578	8-18-2009
580-48148	8-12-2009

Note:

QC = quality control

Required QC for a batch of up to 20 samples includes an MB and an LCS. An MB, MS/MSD, and LCS/LCSD were analyzed per batch.

The following items were reviewed and met SAP criteria, and were within laboratory control limits: MB, MS/MSD recoveries, and LCS/LCSD recoveries and RPDs.

2.15 MERCURY ANALYSES

TestAmerica analyzed soil samples for mercury by SW-846 method 7471A, and water samples for mercury by SW-846 method 7470A. The QC batches are summarized in Table 2-15.1.

Table 2-15.1 Metals QC Batches

QC Batch	QC Batch Date
Soil	
580-46586	7-16-2009
580-49515	9-01-2009
Water	
580-47710	8-5-2009
580-48049	8-11-2009
580-48251	8-13-2009
580-48578	8-18-2009

Note:

QC = quality control

Required QC for a batch of up to 20 samples includes an MB, LCS, and MS/MSD pair. An MB, MS/MSD, and LCS/LCSD were analyzed per batch.

The following items were reviewed and met SAP criteria, and were within laboratory control limits: MB, MS/MSD recoveries, and LCS/LCSD recoveries and RPDs.

2.16 FLASHPOINT ANALYSES

TestAmerica analyzed oil samples for flash point by SW-846 method 1020A. The QC batches are summarized in Table 2-16.1.

Table 2-16.1 Metals QC Batches

QC Batch	QC Batch Date
580-48092	8-11-2009

Note:

QC = quality control

An LCS and a batch duplicate were analyzed as part of the batch QC for flash point. The case narrative indicates that LCS criteria were met though no LCS results were included in the report. The batch duplicate was performed on a sample not related to this project and therefore was not evaluated. Samples 09NC007DW01 and –DW02 were field duplicates and their results met RPD evaluation criteria.

2.17 TOTAL HALOGEN ANALYSES

TestAmerica analyzed oil samples for total halogens by SW-846 method 9076. The QC batches are summarized in Table 2-17.1.

Table 2-17.1 Metals QC Batches

QC Batch	QC Batch Date
580-48302	8-13-2009

Note:

QC = quality control

Required QC for a batch of up to 20 samples includes an MB an LCS, and a batch duplicate. An MB and LCS/LCSD and batch duplicate were analyzed per batch.

The following items were reviewed and met SAP criteria, and were within laboratory control limits: MB, and LCS/LCSD recoveries and batch duplicate RPDs.

2.18 FIELD QA/QC

Field QC samples included field duplicate pairs and MS/MSD pairs. The same methods used to analyze the investigative samples were used to analyze the field QC samples.

2.18.1 Field Sample Duplicates

Comparison of field sample duplicate results to the associated parent sample results provides precision information for the overall sample collection and analytical process, including possible variability related to sample collection, handling, shipping, storage, preparation, and analysis. The RPD between the primary (parent) sample and field duplicate sample also accounts for the variation of target analyte concentrations within a matrix. This variability is assessed by evaluating the calculated RPDs between the field duplicates and the associated parent samples. In cases where a target analyte was not detected above the RL in both the

field duplicate and parent sample, an RPD result would not be valid due to decreased accuracy below the practical quantitation limit (PQL), and therefore flagging would not be valid. However, if target analytes were detected in one sample below the PQL and not detected in the duplicate, results should be flagged to indicate imprecision. The RPD assessment criterion for the MS/MSD RPD provided in the QAPP was used to evaluate the field duplicates.

Field Duplicate Frequencies for Waste Characterization Samples

Field sample duplicate pairs are required by the QAPP at a rate of 10 percent. Field duplicates were collected for each method at the following frequencies:

- One field duplicate pair was collected for the oil matrix and submitted to the laboratory for analysis for all methods, at a frequency of 100%.
- One field duplicate pair was collected for the sludge matrix and submitted to the laboratory for analysis for all methods, at a frequency of 33%.
- One field duplicate pair was collected for the antifreeze matrix and submitted to the laboratory for analysis for all methods, at a frequency of 100%.
- Two field duplicate pairs were collected for the soil matrix and submitted to the laboratory for analysis for all methods, at a frequency of 20%.
- No field duplicate was collected for the ash matrix.

Field Duplicate Frequencies for Drum Pad Samples

Field sample duplicate pairs are required by the QAPP at a rate of 10 percent. Field duplicates were collected for each method at the following frequencies:

- Two field duplicate pairs were collected for the water matrix and submitted to the laboratory for analysis for all methods, at a frequency of 50%.
- Two field duplicate pairs were collected for the soil matrix and submitted to the laboratory for analysis for all methods, at a frequency of 33%.

Field Duplicate RPDs

Tables 2-18.1 – 2-18.3 list the RPDs calculated between characterization field duplicate and parent sample results for target analytes that were detected above the RL in both the parent and field duplicate sample.

**Table 2-18.1 Waste Characterization Field Sample
Duplicate Pair Results**

Parent Sample ID (Laboratory Sample ID)	Field Duplicate Sample ID (Laboratory Sample ID)	Compound	Parent Field Sample	Field Duplicate	RPD (%)
Oil					
09NC007DW01 (580-14839-1)	09NC007DW02 (580-14839-2)	Cadmium	0.69 mg/L	0.68 mg/L	1.5
		Chromium	2.5 mg/L	2.6 mg/L	3.9
		Lead	200 mg/L	200 mg/L	0
		Total Halogens	5000 mg/L	5200 mg/L	3.9
Sludge					
09NC007DW03 (580-14839-3)	09NC007DW04 (580-14839-4)	PCB -1248	2.4 mg/kg	2.0 mg/kg	18
		Lead	0.49 mg/kg J	0.19 mg/kg J	88
		Barium	0.7 mg/kg	0.76 mg/kg	8.2
Soil					
09NC007BW10 (580-14839-8)	09NC007BW11 (580-14839-9)	PCB-1260	0.42 mg/kg J	0.057 mg/kg J	150
		DRO	2500 mg/kg J	3800 mg/kg J	41
		Barium	0.49 mg/kg	0.51 mg/L	4
09NC007BW03 (580-14827-3)	09NC007BW04 (580-14827-4)	PCB-1254	0.033 mg/kg J	ND(0.0026) UM	NA
		PCB-1260	0.059 mg/kg J	0.032 mg/kg J	59
		DRO	4400 mg/kg J	3200 mg/kg J	32
		Barium	0.51 mg/kg	0.55 mg/L	7.5
Antifreeze					
09NC007DW07 (580-14839-11)	09NC007DW08 (580-14839-12)	Ethylene Glycol	1,400,000,000 µg/L J	840,000,000 µg/L J	125
		Arsenic	2.9 mg/L J	0.6 mg/L J	131
		Barium	0.11 mg/L	0.11 mg/L	0
		Lead	0.4 mg/L	0.3 mg/L	28

Notes:

Bold = Exceeds MS/MSD RPD criteria in QAPP
DRO = diesel-range organics
ID = Identification
mg/kg = milligrams per kilogram
NA = not applicable
UM = non-detect, matrix interference suspected

ND = not detected
PCB = polychlorinated biphenyl
QAPP = Quality Assurance Project Plan
RPD = relative percent difference
J = result is an estimate

**Table 2-18.2 Drum Pad Sample Soil Field Sample
Duplicate Pair Results (mg/kg)**

Parent Sample ID (Laboratory Sample ID)	Field Duplicate Sample ID (Laboratory Sample ID)	Compound	Parent Field Sample	Field Duplicate	RPD (%)
09NC007SB02 (580-14430-2)	09NC007SB03 (580-14430-3)	GRO	20	18	11
		PCB-1254	0.67 QLJ	2.2 QLJ	110
		DRO	14,000	14,000	0
		RRO	120,000	130,000	8
		Arsenic	3.7	4.2	13
		Barium	68	91	29
		Chromium	9.6	12	22
		Lead	13 J	22 J	51
		Selenium	17	21	21
09NC007SB05 (580-15052-1)	09NC007SB06 (580-15052-2)	GRO	94	67	33
		PCB-1254	0.024	0.026	8
		DRO	8200	9500	15
		RRO	77,000	80,000	3.8
		Arsenic	4.8	4.7	2.1
		Barium	61	63	3.2
		Chromium	9.5	11	15
		Lead	16	15	6.5
		Selenium	19	17	11

Notes:

Bold	= Exceeds MS/MSD RPD criteria in QAPP	MSD	= matrix spike duplicate
DRO	= diesel-range organics	PCB	= polychlorinated biphenyl
GRO	= gasoline-range organics	QAPP	= Quality Assurance Project Plan
ID	= Identification	RPD	= relative percent difference
mg/kg	= milligrams per kilogram	RRO	= residual-range organics
MS	= matrix spike		

**Table 2-18.3 Drum Pad Water Field Sample
Duplicate Pair Results (µg/L)**

Parent Sample ID (Laboratory Sample ID)	Field Duplicate Sample ID (Laboratory Sample ID)	Compound	Parent Field Sample	Field Duplicate	RPD (%)
09NC007WA01 (580-14747-1)	09NC007WA02 (580-14747-2)	2-Methylnaphthalene	0.60	0.66	9.5
		1-Methylnaphthalene	0.55	0.60	8,7
		Fluorene	0.24	0.53	75
		Phenanthrene	0.19 J	0.33 J	54
		Fluoranthene	0.68	0.59	13
		Pyrene	1.3	1.3	0
		Benzo(a)anthracene	0.23	0.23	0
		Chrysene	1.5	1.5	0
		Benzo(b)fluoranthene	0.37	0.40	7.8
		Benzo(a)pyrene	0.59 J	ND J	NA
		Indeno(1,2,3-cd)pyrene	0.11	0.18	16
		Benzo(g,h,i) perylene	0.30	0.28	6.9
		Acenaphthylene	ND UJ	0.13 J	NA
		Acenaphthene	ND UJ	0.55 J	NA
		Anthracene	ND UJ	0.33 J	NA
		Ethylene Glycol	37,000	36,000	2.7
		PCB-1260	0.22	0.21	4.7
		Barium	9.3	9.2	1.1
		Chromium	1.2	1.2	0
		Lead	9.2	9.3	1.1
		Selenium	3.3	2.5	27
		Arsenic	ND UJ	2.1 J	NA

**Table 2-18.3 Drum Pad Water Field Sample
Duplicate Pair Results (µg/L) (continued)**

Parent Sample ID (Laboratory Sample ID)	Field Duplicate Sample ID (Laboratory Sample ID)	Compound	Parent Field Sample	Field Duplicate	RPD (%)
09NC007WA03 (580-14863-1)	09NC007WA04 (580-14863-2)	Naphthalene	0.31	0.25	21
		2-Methylnaphthalene	0.2 QH	ND UJ	NA
		Acenaphthylene	1.0 QH	0.57 QH	55
		Acenaphthene	0.1 QH	0.06 QH	50
		Fluorene	0.13 QH	0.28 QH	73
		Phenanthrene	0.21 J	0.15 JB	33
		Anthracene	0.18 B	0.15 B	18
		Fluoranthene	0.55 QH	0.52 QH	5.6
		Pyrene	0.76	0.71	6.8
		Benzo(a)anthracene	0.12 QH	0.11 QH	8.7
		Chrysene	0.88 QH	0.87 QH	1.0
		Benzo(b)fluoranthene	0.23 QH	0.27 QH	16
		Benzo(g,h,i)perylene	0.14	0.18	25
		Ethylene Glycol	11,000	9800	1.9
		Arsenic	0.92	0.8	14
		Barium	9.2	8.3	10
		Chromium	7.7	7.6	1.3
		Lead	12	11	8.7

Notes:

µg/L = micrograms per liter

B = analyte was detected in the sample and method blank

Bold = Exceeds MS/MSD RPD criteria in QAPP

ID = Identification

J = estimated value

MS = matrix spike

MSD = matrix spike duplicate

NA = not applicable

ND = not detected

PCB = polychlorinated biphenyl

QAPP = Quality Assurance Project Plan

QC = quality control

QH = one or more QC criteria failed, the result is an estimate

RPD = relative percent difference

U = not detected

For the sludge waste characterization samples, the calculated RPD exceeds the QAPP

MS/MSD RPD criteria for lead as indicated in bold in Table 2-18.1. Because of the observed

imprecision, detected lead results for the sludge waste characterization samples were qualified J to indicated the results are still usable as estimates.

For the soil waste characterization samples, the calculated RPDs exceeded the QAPP MS/MSD RPD criteria for DRO and detected PCBs in both field duplicate pairs, as indicated in bold in Table 2-18.1. Because of the observed imprecision, detected DRO and PCB results for the soil waste characterization samples were qualified J.

For the antifreeze waste characterization samples, the calculated RPDs exceeded the QAPP MS/MSD RPD criteria for ethylene glycol and arsenic as indicated in bold in Table 2-18.1. Because of the observed imprecision, detected ethylene glycol and arsenic results for the antifreeze waste characterization samples were qualified J.

For the soil drum pad samples, the calculated RPDs exceeded the QAPP MS/MSD RPD criteria for PCBs and lead, as indicated in bold in Table 2-18.2. Because of the observed imprecision, detected PCB and lead results for the preconstruction drum pad samples were qualified J.

For the water drum pad samples, the calculated RPDs exceeded the QAPP MS/MSD RPD criteria (or the target analyte was detected at a concentration above the RL in one of the samples in the pair and was not detected in the other sample) for acenaphthylene, acenaphthene, fluorene, and phenanthrene in both sets of field duplicate pairs. All water results for these analytes are J/UJ qualified to indicate possible imprecision. In addition, benzo(a)pyrene and 2-methylnaphthalene were detected at a concentration above the RL in one of the samples in the pair, and was not detected in the other sample. All water results for benzo(a)pyrene and 2-methylnaphthalene are J/UJ qualified to indicate possible imprecision.

2.18.2 Matrix Spikes and Matrix Spike Duplicates

The MS/MSD samples are spiked in the laboratory with known concentrations of target analytes. The MS/MSD sample results provide information on possible matrix effects encountered during sample extraction, digestion, and analysis. Analytical results from MS/MSD samples are used to evaluate the sample matrix, method efficiency and applicability, accuracy, and precision. Accuracy was assessed by calculating the percent

recovery of the target analytes added to the primary sample; precision was assessed by calculating the RPD for the MS/MSD sample pairs.

The MS/MSD sample pairs are required by the QAPP for the drum pad samples at a rate of one MS/MSD pair per 20 samples per matrix. The QAPP does not require MS/MSD pairs for the waste characterization samples. The MS/MSD sample pairs were collected for the drum pad samples at the following frequencies:

- Two MS/MSD pairs from the soil drum pad samples were analyzed by the laboratory for all methods a frequency of 33%.
- Two MS/MSD pairs from the water drum pad samples were analyzed by the laboratory for all methods a frequency of 100%.

The MS and MSD recoveries and RPDs are discussed in Sections 2.2 through 2.17.

2.18.3 Trip Blanks

Aqueous and soil trip blanks are included in shipments containing surface or groundwater samples, which are submitted to the laboratory for VOC and GRO analyses. Trip blanks are collected to assess the potential for VOC cross-contamination introduced by sample bottles or during sample handling during field operations, shipping, or storage at the laboratory.

SDG 14430 contained four soil samples submitted for GRO/BTEX, DRO/RRO, PCBs, and metals. No trip blank was submitted with the soil samples. All GRO/BTEX results were below site cleanup levels or non-detect. Positive results were J flagged to indicate results are estimates due to the omission of a trip blank in the sample shipment. The results are still usable as all results are well below site cleanup levels.

SDG 14839 contained waste samples for TCLP VOCs, TCLP benzene, and other non-volatile analyses. A trip blank accompanied the samples, but only TCLP benzene was requested on the chain-of-custody. The TCLP VOC analyses were for oil and oily sludge; therefore, no request was made to analyze for TCLP VOCs in the trip blank. The VOC analyses were non-detect except for benzene, which was analyzed in the trip blank.

Toluene was detected in the trip blank at a concentration greater than the MDL, but less than one-half the RL with water samples shipped on 8/12/09. Toluene concentrations in the associated samples were greater than the RL and qualification is not necessary.

Toluene was detected in the trip blank at a concentration greater than the MDL, but less than one-half the RL with the soil samples shipped on 8/14/09. Toluene was also detected in the associated samples at concentrations greater than the MDL, but less than one-half the RL. Toluene results in these samples are B qualified to indicate they are indistinguishable from contamination.

2.19 SAMPLE QUALIFIERS

Sample qualifiers are presented in Table 2-19.

Table 2-19 Sample Qualifiers

Field Sample Identification	Laboratory Sample Number	Compounds Affected	Reason	Flag	Bias
09NC007WA01 09NC007WA02	580-14747-1 580-14747-2	Ethylene glycol	Low surrogate recovery	QL	L
09NC007WA03 09NC007WA04 Trip blank	580-14863-1 580-14863-2 580-14863-3	m&p-Xylene	Detected at similar concentration in method blank	B	Unknown
09NC007SB01 09NC007SB04	580-14430-1 580-14430-4	GRO	Detected at similar concentration in method blank	B	Unknown
09NC00007SB03	580-14430-3	DRO	High bias due to surrogate	H	H
09NC007SB05 09NC007SB06 09NC007SB07 09NC007SB08	580-15052-1 580-15052-2 580-15052-3 580-15052-4	Toluene	Detected at a similar concentration in the trip blank	B	Unknown

Table 2-19 Sample Qualifiers (continued)

Field Sample Identification	Laboratory Sample Number	Compounds Affected	Reason	Flag	Bias
09NC007BW01 09NC007BW02 09NC007BW03 09NC007BW04 09NC007BW05 09NC007BW06 09NC007BW07 09NC007BW08	580-14827-1 580-14827-2 580-14827-3 580-14827-4 580-14827-5 580-14827-6 580-14827-7 580-14827-8	PCB-1260	No recovery in MS or MSD, field duplicate imprecision	M	L
09NC007BW04	580-14827-4	All PCB results except PCB-1260	Low surrogate recovery	UML	L
09NC008SB02 09NC008SB03	580-14430-2 580-14430-3	All PCB results	Low surrogate recovery	ML/UML	L
09NC007WA03 09NC007WA04 (QC batch 580-48266)	580-14863-1 580-14863-2	All detected PAHs	High LCS recovery	QH	H
09NC007WA03 09NC007WA04 (QC batch 580-48266)	580-14863-1 580-14863-2	Acenaphthylene Acenaphthene Fluorene Fluoranthene Benzo(a)anthracene	High MS or MSD recovery, High LCS recovery	M	H
09NC007WA03 09NC007WA04 (QC batch 580-48492)	580-14863-1 580-14863-2	All PAH results	Original results are preferred	NP	Not applicable
09NC007WA01 09NC007WA02	580-14747-1 580-14747-2	Dibenz(a,h)anthracene	High MS recovery	M	H
09NC007BW03 09NC007BW08	580-14827-3 580-14827-8	Selenium	Detected in MB	B	Unknown
09NC007DW03 09NC007DW04 09NC007DW05 09NC007DW06	580-14839-3 580-14839-4 580-14839-5 580-14839-6	Lead	Field duplicate imprecision	J	Unknown

Table 2-19 Sample Qualifiers (continued)

Field Sample Identification	Laboratory Sample Number	Compounds Affected	Reason	Flag	Bias
09NC007BW01 09NC007BW02 09NC007BW03 09NC007BW04 09NC007BW05 09NC007BW06 09NC007BW07 09NC007BW08 09NC007BW09 09NC007BW10 09NC007BW11 09NC007BW12	580-14827-1 580-14827-2 580-14827-3 580-14827-4 580-14827-5 580-14827-6 580-14827-7 580-14827-8 580-14839-7 580-14839-8 580-14839-9 580-14839-10	DRO	Field duplicate imprecision	J	Unknown
09NC007BW01 09NC007BW02 09NC007BW03 09NC007SB02 09NC007SB03	580-14827-1 580-14827-2 580-14827-3 580-14430-2 580-14330-3	PCB-1254	Field duplicate imprecision	J	Unknown

Table 2-19 Sample Qualifiers (continued)

Field Sample Identification	Laboratory Sample Number	Compounds Affected	Reason	Flag	Bias
09NC007BW09 09NC007BW10 09NC007BW11 09NC007BW12	580-14839-7 580-14839-8 580-14839-9 580-14839-10	PCB-1260	Field duplicate imprecision	J	Unknown
09NC007DW07 09NC007DW08	580-14839-11 580-14839-12	Ethylene glycol Arsenic	Field duplicate imprecision	J	Unknown
09NC007SB01 09NC007SB02 09NC007SB03 09NC007SB04	580-14430-1 580-14430-2 580-14430-3 580-14430-4	Lead	Field duplicate imprecision	J	Unknown
09NC007SB02 09NC007SB03	580-14430-2 580-14430-3	PCB-1254	Field duplicate imprecision	J	Unknown
09NC007WA01 09NC007WA02	580-14747-1 580-14747-2	Acenaphthylene Acenaphthene Fluorene Pphenanthrene Benzo(a)pyrene 2-Methylnaphthalene	Field duplicate imprecision	J/UJ	Unknown
09NC007WA03 09NC007WA04	580-14863-1 580-14863-2	Phenanthrene 2-Methylnaphthalene	Field duplicate imprecision	J/UJ	Unknown

Notes:

B = detected in blank
DRO = diesel-range organics
GRO = gasoline range organics
H = high bias
J = estimated value
L = low bias
LCS = laboratory control sample
M = matrix effect
MB = method blank

MS = matrix spike
MSD = matrix spike duplicate
NP = not preferred
PAHs = polynuclear aromatic hydrocarbons
PCB = polychlorinated biphenyl
Q = quality control failure
QC = quality control
U = not detected

(Intentionally blank)

3.0 SUMMARY

This Report evaluates the analytical data generated during the NE Cape ISCO Study and Drum Removal, conducted during July and August 2009. This assessment evaluated whether program objectives and data quality goals were met. The assessment reviewed sample receipt conditions, extraction and analytical procedures, sampling procedures, and correspondence to method criteria and project DQOs. The following conclusions were drawn based on this assessment of the analytical data:

- Sample receipt conditions were acceptable based on temperatures upon receipt and CoC correspondence to submitted sample set.
- Extraction and analytical procedures were acceptable based on MBs, LCS/LCSDs, MS/MSDs, and surrogates except as noted below.
- Analyses and extractions were performed within holding times, with the exception of the re-extraction of water samples 09NC007WA03 and 09NC007WA04 in QC batch 580-48492 for PAHs. The original extraction had high recoveries in the LCS and MS/MSD for several analytes which may have biased all sample results high, though the root cause of the bias was not determined. The re-extraction also had minor QC issues and the samples were re-extracted past the holding time. However, the results for the original extraction are preferred with flagging to indicate the potential high bias. The data is still usable as an estimate to determine the approximate PAH concentrations in the duplicate water samples, though results may be biased. The reported results are at least 10 times lower than groundwater cleanup levels for PAHs in Title 18 Alaska Administrative Code, Chapter 75.345, table C.
- Sample qualification occurred due to low surrogate recoveries in the analysis for ethylene glycol in samples 09NC008WA01 and 09NC008WA02, possibly due to the incorrect preservation of the samples with HCL. The SAP incorrectly stated the HCL preservation. It is unclear what kind of bias the HCL had on the target analyte, though the low surrogate recovery in the samples was attributed to the HCL by the laboratory in the case narrative.
- Aroclor 1254 in field duplicate samples 09NC008SB02 and 09NC008SB03 did not meet RPD acceptance criteria. Results are flagged to indicate quality issues and results are also J flagged as estimates due to the imprecision. PCB-1260 was not recovered in the MS or MSD performed on the soil waste characterization samples and MS and/or MSD recoveries
- m&p-Xylene, GRO, toluene, and selenium were detected at concentrations greater than the MDL, but less than ½ the RL in some method blanks and trip blanks which resulted in qualification of these analytes with samples concentrations less than the RL, or less than 10 times the concentrations reported in the blanks. Impacted results are B flagged to indicate potential bias due to storage or analytical techniques.

- Imprecision was observed in the field duplicate pairs for lead in the sludge waste characterization samples, DRO and PCBs in the soil waste characterization samples, ethylene glycol and arsenic in the antifreeze waste characterization samples, PCBs and lead in the soil drum pad samples, and PAHs in the water drum pad samples.
- Method sensitivity – All analytical PQLs were below site cleanup levels for undiluted samples. All reported non-detect results were also below site cleanup levels. Some positive results had PQLs greater than site cleanup levels due to dilution in the presence of high levels of target analytes. Project reporting levels and sensitivity requirements were met for all analyses. Analytical results were reported down to the MDL.

Based on this review, the analytical data generated during the NE Cape ISCO Study and Drum Removal are complete, correct, consistent, and compliant with method procedures, and QC requirements and are usable, as qualified.

ADEC Laboratory Certification

THE STATE OF ALASKA

Department of Environmental Conservation
Laboratory Certification Program

Certificate of Approval for Contaminated Sites Analysis

TestAmerica-Tacoma

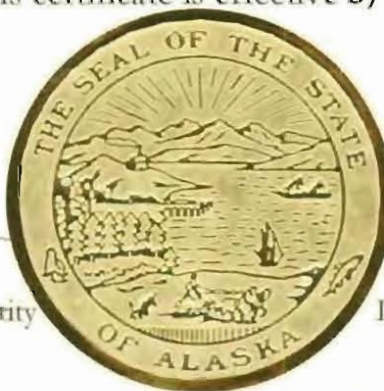
5755 8th Street East
Tacoma, WA 98424

UST-022

has complied with the provisions set forth in 18 AAC 78 and is hereby recognized by The Department of Environmental Conservation as **Approved** for the analytical parameter listed on the accompanying Scope of Accreditation. This certificate is effective 3/4/09, and expires 3/4/10.

Thomas K. Hathaway

Thomas K. Hathaway, Ph.D.
State of Alaska Certification Authority



Lance W. Morris

Lance W. Morris
Laboratory Chemistry Certification Officer

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF ENVIRONMENTAL HEALTH
Environmental Health Laboratory
CONTAMINATED SITES LAB APPROVAL

SARAH PALIN, GOVERNOR

TELEPHONE: (907) 375-8200
FAX: (907) 929-7335
5251 Hinkle Road
Anchorage, AK 99507

www.alaska.gov/dec/eh

2/23/2009

Christina Mott
TestAmerica-Tacoma, WA
5755 8th Street East
Tacoma, WA 98424

Reference: 2010 ADEC Contaminated Sites Lab Approval-UST-022

Christina Mott:

Thank you for your continued interest in the State of Alaska Contaminated Sites Laboratory Approval. Based on a review of the materials received, and of those on file, TestAmerica-Tacoma, WA located at 5755 8th Street East, Tacoma, WA, is approved as detailed below to do work under the January 30, 2003 revision of AS 18 AAC 78.

TestAmerica-Tacoma, WA located at 5755 8th Street East, Tacoma, WA, is granted **Full Approval** to perform the analyses listed in the State of Alaska Scope of Approval for Alaska contaminated sites projects including UST/LUST.

Be aware that you must retain method detection limit (MDL) data on file for each method and instrument for which you are seeking approval under the AK CS Program. These may be kept in your in-house files. They need not be submitted to ADEC at this time, however, they may be subject to inspection in the event of an on-site investigation or ADEC may ask they be submitted as part of the approval process. **Please remember your expiration date is 03/04/2010.**

You must submit the required documentation for renewal no earlier than 90 days and no later than 30 days before your date of expiration. We must receive your application, fees, acceptable performance evaluation results, and the latest revision of your quality assurance manual during this window.

You may download a copy of the application from the following site:
<http://www.state.ak.us/dec/eh/lab/cs/csapproval.htm>

Your laboratory identifying number remains UST-022. Please remember to include this number in ALL correspondence concerning your Alaska CS approval and on all data transmittals. In order to assure timely handling please address all correspondence to the attention of "Lance Morris, CS Lab Approval Officer".

If you have any questions, please contact the Alaska Department of Environmental Conservation Environmental Health Laboratory at (907)375-8200 or at the following email address Lance.Morris@Alaska.gov.

Respectfully,



CS Lab Approval Officer

Digitally signed by Lance W. Morris
DN: cn=Lance W. Morris, o=Department of
Environmental Conservation, ou=State of
Alaska, email=lance.morris@alaska.gov,
c=US
Date: 2009.02.23 10:32:19 -09'00'

cc: Laboratory File
enc: Certificate

THE STATE OF ALASKA

Department of Environmental Conservation

Laboratory Approval Program

Scope of Approval

Expiration: 03/04/2010

TestAmerica-Tacoma, WA UST-022
 5755 8th Street East
 Tacoma, WA 98424

is approved by the State of Alaska Department of Environmental Conservation, pursuant to 18 AAC 78, to perform analysis for the parameters listed below using the analytical methods indicated. Approval for all parameters is final. Approval is for the latest version of a method unless specified otherwise in a note. EPA refers to the U.S. Environmental Protection Agency. AK refers to Alaska Methods 101, 102 and 103 for the determination of gasoline, diesel and residual range organics in soil and water. ASTM refers to the American Society for Testing and Materials.

Contaminated Sites

Method/Test Name	Reference	Analyte	Matrix	Status
6010B	EPA	Total Arsenic	Soil	Approved
6010B	EPA	Total Barium	Soil	Approved
6010B	EPA	Total Cadmium	Soil	Approved
6010B	EPA	Total Chromium	Soil	Approved
6010B	EPA	Total Lead	Soil	Approved
6010B	EPA	Total Nickel	Soil	Approved
6010B	EPA	Total Vanadium	Soil	Approved
6010B	EPA	Total Arsenic	Water	Approved
6010B	EPA	Total Barium	Water	Approved
6010B	EPA	Total Cadmium	Water	Approved
6010B	EPA	Total Chromium	Water	Approved
6010B	EPA	Total Lead	Water	Approved
6010B	EPA	Total Nickel	Water	Approved
6010B	EPA	Total Vanadium	Water	Approved
6020	EPA	Total Arsenic	Soil	Approved
6020	EPA	Total Barium	Soil	Approved
6020	EPA	Total Cadmium	Soil	Approved
6020	EPA	Total Chromium	Soil	Approved
6020	EPA	Total Lead	Soil	Approved

Contaminated Sites

Method/Test Name	Reference	Analyte	Matrix	Status
6020	EPA	Total Nickel	Soil	Approved
6020	EPA	Total Vanadium	Soil	Approved
6020	EPA	Total Arsenic	Water	Approved
6020	EPA	Total Barium	Water	Approved
6020	EPA	Total Cadmium	Water	Approved
6020	EPA	Total Chromium	Water	Approved
6020	EPA	Total Lead	Water	Approved
6020	EPA	Total Nickel	Water	Approved
6020	EPA	Total Vanadium	Water	Approved
8021B	EPA	BTEX	Water	Approved
8082	EPA	Polychlorinated Biphenyls-PCB	Soil	Approved
8082	EPA	Polychlorinated Biphenyls-PCB	Water	Approved
8260B	EPA	BTEX	Soil	Approved
8260B	EPA	Total Volatile Chlorinated Solvent	Soil	Approved
8260B	EPA	BTEX	Water	Approved
8260B	EPA	Total Volatile Chlorinated Solvent	Water	Approved
8270C	EPA	PAH	Soil	Approved
8270C	EPA	PAH	Water	Approved
AK101	AK	Gasoline Range Organics	Soil	Approved
AK101	AK	Gasoline Range Organics	Water	Approved
AK101/8021B	EPA	BTEX-methanol preserved	Soil	Approved
AK102	AK	Diesel Range Organics	Soil	Approved
AK102	AK	Diesel Range Organics	Water	Approved
AK102-SV	AK	Diesel Range Organics-small volume	Water	Approved
AK103	AK	Residual Range Organics	Soil	Approved

ADEC Checklists

Laboratory Data Review Checklist

Completed by:	Eric Barnhill
Title:	Environmental Scientist
Date:	October 5, 2009
CS Report Name:	NE Cape St. Lawrence Island
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	Test America – Tacoma
Laboratory Report Number:	14430
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

All samples were analyzed by Test America, Tacoma

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

--

- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

--

3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

Temperature is documented at 3.4°C

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No

Comments:

All samples were received in good condition.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☒ Yes ☐ No

Comments:

There was no trip blank included in the shipment .

- e. Data quality or usability affected? Explain.

Comments:

Soil samples were submitted for GRO/BTEX, DRO/RRO PCBs and metals with the required trip blank. Most BTEX sample results were non-detect and no BTEX or GRO results were near cleanup levels. Because there was no trip blank submitted, data quality objectives for completeness were not achieved. The laboratory method blank was non-detect for GRO/BTEX. The data is still usable though positive results were J flagged as estimates. All positive results are J flagged as estimates.

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

GRO Analysis: Gasoline Range Organics (GRO)-C6-C10 was detected in method blank MB 580-46620/1-A at a level that was above the method detection limit but below the reporting limit. The value is considered an estimate, and was flagged "J". If the associated sample reported a result above the MDL and/or RL, the result was "B" flagged.

PCBs Analysis: The recovery of the surrogate DCB Decachlorobiphenyl for samples 580-14430-2 and 580-14430-3 were outside of the lower control limit. Matrix interference is suspected to have caused these failures (the Tetrachloro-m-xylene surrogate was within limits for both samples, later eluting analyte retention times were shifted, the samples were reanalyzed with similar results, and the closing CCV (46651/14) responses were depressed); therefore, the surrogates outside of the control limit were "X" and "I" flagged and re-extraction and/or re-analysis was not performed.

The recovery of the surrogate DCB Decachlorobiphenyl for the blank (MB) and laboratory control sample (LCS) associated with batch 580-46500 analytical batch 580-46500 were outside of the upper recovery limit. The recovery in both the MB and the LCS was high, however no target analytes were detected in the MB and the spiked analytes were within quality control limits in the LCS. No further action was taken on these outliers.

The relative percent difference (RPD) values for PCB-1260 between the matrix spike/matrix spike duplicate of sample 580-14430-1 was outside advisory QC limits. The recoveries of this compound in both the MS and MSD were within quality control limits. No further action was taken on this outlier.

DIESEL AND RESIDUAL RANGE ORGANICS: The recovery value for DRO (nC10-<nC25) in the matrix spike duplicate of sample 580-14430-1 was outside advisory QC limits. Matrix interference may be indicated based on acceptable LCS/LCSD recovery.

Recovery values for RRO (nC25-nC36) in the matrix spike/matrix spike duplicate of sample 580-14430-1 were outside advisory QC limits due to high concentration of the analyte in the original sample. The analyte present in the original sample is four times greater than the matrix spike concentration; therefore, control limits are not applicable.

TOTAL METALS: Chromium and Selenium were detected in method blank MB 580-46944/17-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

c. Were all corrective actions documented?

☒ Yes ☐ No

Comments:

See above

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Data quality is sufficient for project purposes.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☐ Yes ☒ No

Comments:

Method EPA 6010A was requested on the COC, and the lab ran EPA 6010B. This substitution is acceptable.

b. All applicable holding times met?

☒ Yes ☐ No

Comments:

c. All soils reported on a dry weight basis?

☒ Yes ☐ No

Comments:

- d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

- e. Data quality or usability affected?

Comments:

Not Applicable

6. QC Samples

a. Method Blank

- i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

- ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

- iii. If above PQL, what samples are affected?

Comments:

Not Applicable

- iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not Applicable

- v. Data quality or usability affected? Explain.

Comments:

Not Applicable

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

- i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

- ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

- iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

- iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

- v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

For Method Blank and Lab Control Sample – Batch: 580-46500 DCB Decachlorobiphenyl was outside the acceptance limits for %R. (Samples 09NC007SB02 and 03)
The % Recovery for n-Triacontane-d62 was below the acceptance limits. (Sample 09NC007SB03)
The RPD for PCB-120 for the MS/MSD Recovery Report – Batch 580-46500 was above the RPD limit.

- vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

- vii. Data quality or usability affected? (Use comment box to explain)

Comments:

c. Surrogates – Organics Only

- i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

- ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

Some sample surrogate recoveries were outside of method acceptance limits.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

The surrogates outside of the control limit were "X" and "I" flagged.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

All sample results are usable for project purposes. Some results are considered estimates due to minor QC issues such as surrogate recoveries.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☐ Yes ☒ No

Comments:

7. Soil samples were submitted for GRO/BTEX, DRO/RRO PCBs and metals with the required trip blank. Most BTEX sample results were non-detect and no BTEX or GRO results were near cleanup levels. Because there was no trip blank submitted, data quality objectives for completeness were not achieved. The laboratory method blank was non-detect for GRO/BTEX. The data is still usable though positive results were J flagged as estimates.

i. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☒ No

Comments:

ii. All results less than PQL?

☐ Yes ☐ No

Comments:

NA

iii. If above PQL, what samples are affected?

Comments:

Not Applicable

iv. Data quality or usability affected? Explain.

Comments:

8. The data quality was impacted due to the lack of a required trip blank. Sample results are still usable as estimates. The laboratory method blank was non-detect for GRO/BTEX. The data is still usable though positive results were J flagged as estimates.

a. Field Duplicate

- i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

- ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

- iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☐ Yes ☒ No

Comments:

DRO and RRO result did not meet precision limits

- iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality objectives for precision were not met for some analytes.

- b. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

- i. All results less than PQL?

☐ Yes ☐ No

Comments:

Samples were collected with disposable equipment.

- ii. If above PQL, what samples are affected?

Comments:

Not Applicable

iii. Data quality or usability affected? Explain.

Comments:

Not Applicable

9. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No

Comments:

Laboratory Data Review Checklist

Completed by:	Marty Hannah
Title:	Project Chemist
Date:	October 2, 2009
CS Report Name:	NE Cape St. Lawrence Island
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	TestAmerica-Tacoma
Laboratory Report Number:	580-14560
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

All samples were analyzed by TestAmerica-Tacoma

- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not Applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No

Comments:

All samples were received in good condition.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No

Comments:

No discrepancies were noted.

e. Data quality or usability affected? Explain.

Comments:

Data quality is sufficient for project purposes.

4. Case Narrative

a. Present and understandable?

☒ Yes ☐ No

Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

c. Were all corrective actions documented?

☐ Yes ☐ No

Comments:

No corrective actions were required.

- d. What is the effect on data quality/usability according to the case narrative?

Comments:

Sample results are usable for project purposes. The method blank had reportable results between the MDL and PQL, sample results were flagged B. The method blank also had surrogate recoveries above the method acceptance limit, no sample results were impacted. Samples 14560-2 and -4 were diluted due to presence of target analytes, the dilution made quantitation of surrogates impractical.

5. Samples Results

- a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

- b. All applicable holding times met?

☒ Yes ☐ No

Comments:

- c. All soils reported on a dry weight basis?

☒ Yes ☐ No

Comments:

- d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

- e. Data quality or usability affected?

Comments:

Sample analysis and reporting was acceptable for project purposes.

6. QC Samples

- a. Method Blank

- i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

- ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

The method blank had positive results reported between the MDL and PQL. Affected sample results are B flagged.

iii. If above PQL, what samples are affected?

Comments:

The positive result was below the PQL.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

v. Data quality or usability affected? Explain.

Comments:

Sample results are usable for project purposes. The sample results were greater than 10 times the concentration reported in the method blank.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No

Comments:

Not applicable

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Not applicable

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☒ No

Comments:

No data flags were assigned based on Laboratory sample recoveries.

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Sample results are usable for project purposes without qualification.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Samples 58-14560-2 and -4 were diluted and suitable surrogate results were not obtained. The extraction method blank reported surrogate recoveries exceeding method acceptance limits. Data flags (X) were assigned to sample results indicating surrogate recoveries were outside of acceptance limits.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Sample results are usable for project purposes. The flagged results are considered estimates.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☐ Yes ☒ No

Comments:

Samples were submitted for DRO analysis only.

- ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC?
(If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

Not applicable

- iii. All results less than PQL?

☐ Yes ☐ No

Comments:

Not applicable

- iv. If above PQL, what samples are affected?

Comments:

Not applicable

- v. Data quality or usability affected? Explain.

Comments:

Not applicable

e. Field Duplicate

- i. One field duplicate submitted per matrix, analysis and 10 project samples?

☐ Yes ☒ No

Comments:

- ii. Submitted blind to lab?

☐ Yes ☐ No

Comments:

Not applicable

- iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

☐ Yes ☐ No

Comments:

- iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Samples were collected with disposable equipment that was not reused.

ii. If above PQL, what samples are affected?

Comments:

iii. Data quality or usability affected? Explain.

Comments:

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	Eric Barnhill
Title:	Environmental Scientist
Date:	October 8, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	Test America-Tacoma
Laboratory Report Number:	580-14747-1
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not Applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

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- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

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3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

The temperatures of the three coolers were: 5.3°C , 5.3°C and 5.4°C . The temperatures of the temperature blanks for the three coolers were 4.0°C , 5.7°C and 5.7°C .

The lab found these temperatures acceptable and explained why with the following language:

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2°C of the required temperature or method specified range. For samples with a specified temperature of 4°C , samples with a temperature ranging from just above freezing temperature of water to 6°C shall be acceptable.

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No

Comments:

All samples were received in good condition

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No

Comments:

Not Applicable

- e. Data quality or usability affected? Explain.

Comments:

Not Applicable

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

c. Were all corrective actions documented?

☐ Yes ☐ No

Comments:

No corrective actions were required.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Sample results are usable for project purposes.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☐ Yes ☐ No

Comments:

Method EPA 8015M was requested on the COC, and the lab ran EPA 8015B also, method EPA 6010/7471A was requested on the COC, and the lab ran EPA 6020 and 7470A. These substitutions are acceptable.

b. All applicable holding times met?

☒ Yes ☐ No

Comments:

c. All soils reported on a dry weight basis?

☐ Yes ☐ No

Comments:

Not Applicable – Water samples.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Not Applicable

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

Not Applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not Applicable

v. Data quality or usability affected? Explain.

Comments:

Not Applicable

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Sample 580-14747-1 and Sample 580-14747-2 analysis 8015B both for 1-Pentanol.
Sample 5800-14747-1 and -2 analysis 8082 PCBs for Tetrachloro-m-xylene

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Sample results are usable for project purposes.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits?
And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Sample results are usable for project purposes.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples?
(if not, enter explanation below.)

☒ Yes ☐ No

Comments:

- ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC?
(If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

There were three coolers, each one containing portions of the samples. Only one of the coolers contained VOA samples, and that cooler contained the trip blank as well. One cooler had the original COC to cover all of the samples, and the other coolers carried copies of the COC

- iii. All results less than PQL?

☒ Yes ☐ No

Comments:

- iv. If above PQL, what samples are affected?

Comments:

Not Applicable

- v. Data quality or usability affected? Explain.

Comments:

Not Applicable

e. Field Duplicate

- i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

- ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

- iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☐ Yes ☒ No

Comments:

Napthalene, Fluorene, Phenanthrene and Benzo[a]pyrene did not meet precision limits.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality objectives for precision were not met for some analytes. BTEX, PCB, RCRA 8 Metals and Ethylene Glycol results were within RPD limits.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

When equipment was used to fill water sample jars, it was disposable.

ii. If above PQL, what samples are affected?

Comments:

Not Applicable

iii. Data quality or usability affected? Explain.

Comments:

Not Applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	Marty Hannah
Title:	Project Chemist
Date:	October 5, 2009
CS Report Name:	NE Cape Landfill and ISCO Study
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	TestAmerica-Tacoma
Laboratory Report Number:	580-14753
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☒ Yes ☐ No

Comments:

TOC samples were sub-contracted to TestAmerica-West Sacramento for analyses.

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No

Comments:

All samples were received in good condition.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☒ Yes ☐ No

Comments:

Custody seals were not present on cooler per the cooler receipt form.

- e. Data quality or usability affected? Explain.

Comments:

Sample results are usable for project purposes.

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

- c. Were all corrective actions documented?

☐ Yes ☐ No

Comments:

No corrective actions were required.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Sample results are usable for project purposes. Some results are considered estimates due minor QC issues.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

b. All applicable holding times met?

☒ Yes ☐ No

Comments:

c. All soils reported on a dry weight basis?

☒ Yes ☐ No

Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Sample analyses were performed within holding times and reporting limits met project data quality objectives.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

The GRO method blank had positive results between the MDL and PQL. All sample result were more than 1000 times the concentration found in the method blank.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Affected samples are assigned a B.

v. Data quality or usability affected? Explain.

Comments:

Sample results are unaffected by the positive method blank result.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Not applicable

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Laboratory control samples met control limits for accuracy and precision.

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Sample results are usable for project purposes.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

Some sample surrogate recoveries were outside of method acceptance limits.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Samples with surrogate recoveries outside of method acceptance limits are flagged X. 8260 sample results with only one surrogate out of method acceptance limits may not be flagged.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

All sample results are usable for project purposes. Some results are considered estimates due to minor QC issues such as surrogate recoveries.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☒ Yes ☐ No

Comments:

- ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC?
(If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

- iii. All results less than PQL?

☒ Yes ☐ No

Comments:

- iv. If above PQL, what samples are affected?

Comments:

Not applicable

- v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for trip blanks.

e. Field Duplicate

- i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

- ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

- iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☐ Yes ☒ No

Comments:

GRO, DRO, Benzene and Naphthalene results did not meet precision limits.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality objectives for precision were not met for some analytes. TOC and RRO results were within RPD limits.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Samples were collected with disposable equipment.

ii. If above PQL, what samples are affected?

Comments:

Not applicable

iii. Data quality or usability affected? Explain.

Comments:

Not applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	Eric Barnhill
Title:	Environmental Scientist
Date:	October 15, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	Test America-Tacoma
Laboratory Report Number:	580-14827-1
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not Applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

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- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

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3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☐ Yes ☐ No

Comments:

Samples were received in good condition.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No

Comments:

No discrepancies were noted

- e. Data quality or usability affected? Explain.

Comments:

Not Applicable

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

Surrogate DCB Decachlorobiphenyl recovery for sample 580-14827-4 failed low due to matrix interference caused by sample moisture greater than 20 %. Results were reported.

Recovery values for PCB-1260 in the matrix spike/matrix spike duplicate of sample 580-14827-1 were outside advisory QC limits. Matrix interference is indicated based on acceptable LCS recovery.

Selenium was detected in method blank MB 580-48056/15-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

c. Were all corrective actions documented?

☐ Yes ☐ No

Comments:

No corrective actions were required

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Not Applicable.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☐ Yes ☒ No

Comments:

EPA 6010/7471A was requested on the COC. The Lab used method 6010B. This substitution is acceptable.

b. All applicable holding times met?

☒ Yes ☐ No

Comments:

c. All soils reported on a dry weight basis?

☒ Yes ☐ No

Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Not Applicable

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

Not Applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not Applicable

v. Data quality or usability affected? Explain.

Comments:

Not Applicable

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Not Applicable

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not Applicable

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Not Applicable

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

The surrogate DCB Decachlorobiphenyl was outside laboratory limits for sample 09NC007BW04, for method 8082

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Sample result is usable and considered an estimate.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☐ Yes ☐ No

Comments:

Not Applicable

- ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC?
(If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

Not Applicable

- iii. All results less than PQL?

☐ Yes ☐ No

Comments:

NotApplicable

- iv. If above PQL, what samples are affected?

Comments:

Not Applicable

- v. Data quality or usability affected? Explain.

Comments:

Not Applicable

e. Field Duplicate

- i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

- ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

- iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☐ Yes ☐ No

Comments:

For method 8082, the RPD for PCB-1260 was outside the specified DQO. The RPDs for 8260B, AK102, 6010B and 7470A met precision objectives.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Not Applicable

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Disposable equipment was used to fill sample bottles.

ii. If above PQL, what samples are affected?

Comments:

Not Applicable

iii. Data quality or usability affected? Explain.

Comments:

Not Applicable.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	Eric Barnhill
Title:	Environmental Scientist
Date:	October 13, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	Test America Tacoma
Laboratory Report Number:	580-14839-1
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not Applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

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- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

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3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☐ Yes ☐ No

Comments:

Samples were received in good condition

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No

Comments:

No discrepancies were noted

- e. Data quality or usability affected? Explain.

Comments:

Not Applicable

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

- c. Were all corrective actions documented?

☐ Yes ☐ No

Comments:

Some samples were reanalyzed at a dilution.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Overall project data quality objectives were met with some minor QC issues.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

The lab substituted some methods for comparable methods. These substitutions are acceptable.

b. All applicable holding times met?

☒ Yes ☐ No

Comments:

c. All soils reported on a dry weight basis?

☐ Yes ☒ No

Comments:

Sample results for BW09 thru BW12 were reported on a wet weight basis. the laboratory did not perform percent solids determinations.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

The results for BW09-BW12 were reported on a wet weight basis. The samples were from drummed drill cuttings. While the results were not reported on a dry weight basis as required, the cuttings were properly disposed of at a TSDF. The PCB and DRO results are starred ** and a footer notes that samples are reported on a wet-weight basis due to lab error.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

Not Applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not Applicable

v. Data quality or usability affected? Explain.

Comments:

Not Applicable

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Samples associated with duplicate - batch: 580-48153 (selenium for method 6010B); Duplicate - Batch: 580-48076 (arsenic method 6020)

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Not Applicable

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

All reported; some fall outside of acceptance limits.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Samples with failed or non-reported surrogate recoveries are flagged X and are considered estimates.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Overall data quality objectives were met for surrogate recoveries.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☐ Yes ☒ No

Comments:

A water trip blank accompanied samples submitted for TCLP VOCs, TCLP benzene only and other semi-volatile analyses. The trip blank request for analysis was for TCLP benzene only.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

There was only one cooler, which included all samples.

iii. All results less than PQL?

☒ Yes ☐ No

Comments:

iv. If above PQL, what samples are affected?

Comments:

Not Applicable

v. Data quality or usability affected? Explain.

Comments:

Data Quality objectives were met for the trip blank with the exception of not requesting TCLP VOC analyses. However, all VOC analytical results were non-detect except for benzene, which was non-detect in the trip blank. Sample results are accepted without qualification.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☒ Yes ☐ No

Comments:

The DQO used for all four parameters (oil, oily sludge, antifreeze and soil) was 50%. The following analytes were above the DQO: PCB-1260 for 8082 PCBs, Arsenic for 6010B metals and 6020 metals, Selenium Barium and Lead for 6010B Metals. The RPD for Ethylene Glycol for 8015B Nonhalogenated Organic Compounds was right at 50%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Objectives for precision were not met for 8082 PCBs, 6010B metals and 6020 metals. Objectives were met for all other methods.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

There was no contamination blank. All samples were collected using disposable equipment.

ii. If above PQL, what samples are affected?

Comments:

Not Applicable

iii. Data quality or usability affected? Explain.

Comments:

Not Applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	Eric Barnhill
Title:	Environmental Scientist
Date:	October 9, 2009
CS Report Name:	NE Cape Landfill and ISCO Study
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	Test America Tacoma
Laboratory Report Number:	580-14863-1
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Samples remained with Test America Tacoma

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

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- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

--

3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

There were two coolers. Cooler number one had a temperature blank temperature of 6.0°C and a cooler temperature of 5.9°C . Cooler number two had a temperature blank temperature of 4.6°C and a cooler temperature of -0.3°C .

These temperatures are acceptable according to the labs guidelines, which read: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2°C of the required temperature or method specified range. For samples with a specified temperature of 4°C , samples with a temperature ranging from just above freezing temperature of water to 6°C shall be acceptable.

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☐ Yes ☐ No

Comments:

All samples were received in good condition

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No

Comments:

There were no discrepancies documented

- e. Data quality or usability affected? Explain.

Comments:

Not applicable

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

c. Were all corrective actions documented?

☒ Yes ☐ No

Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Not Applicable

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☐ Yes ☐ No

Comments:

RCRA 8 metals EPA 6010/7471A and Ethylene Glycol EPA 8015M were requested, however the lab ran 6020 metals and 8015B nonhalogenated organic compounds respectively. These deviations are acceptable.

b. All applicable holding times met?

☐ Yes ☒ No

Comments:

c. All soils reported on a dry weight basis?

☒ Yes ☐ No

Comments:

Not Applicable

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Not Applicable

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

Not Applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not Applicable

v. Data quality or usability affected? Explain.

Comments:

Not Applicable

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

The method blank and LCS for method 8270C for nitrobenzene-d5 had a %R outside (above) acceptance limits.

The MS for method 8082 was outside (below) %R for Tetrachloro-m-xylene.

The RPD for mercury for Method 7470A was twice the RPD limit.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Sample results are usable for project purposes.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Sample results are usable for project purposes.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☒ Yes ☐ No

Comments:

- ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC?
(If not, a comment explaining why must be entered below)

☐ Yes ☐ No Comments:

All of the samples associated with this COC, including volatiles, fit into one cooler.

- iii. All results less than PQL?

☒ Yes ☐ No Comments:

- iv. If above PQL, what samples are affected?

Comments:

Not Applicable

- v. Data quality or usability affected? Explain.

Comments:

Sample results are usable for project purposes.

e. Field Duplicate

- i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No Comments:

- ii. Submitted blind to lab?

☒ Yes ☐ No Comments:

- iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☐ Yes ☒ No Comments:

RPDs for Acenaphthylene, Phenanthrene, Anthracene, Pyrene, Benzo[a]anthracene, Chrysene, Benzo[b]fluoranthene, Benzo[a]pyrene, Dibenz(a,h)anthracene, Acenaphthylene, Benzo[k]fluoranthene, Acenaphthene and Fluorine did not meet precision limits.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality objectives for precision were not met for 8270C. BTEX, PCBs, RCRA 8 metals and Ethylene Glycol were within RPD limits.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Water samples were filled using disposable jars or filled directly from the water source.

ii. If above PQL, what samples are affected?

Comments:

Not Applicable

iii. Data quality or usability affected? Explain.

Comments:

Not Applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	Marty Hannah
Title:	Project Chemist
Date:	October 7, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	TestAmerica-Tacoma
Laboratory Report Number:	580-14864
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

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- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

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3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

Sample 09NCMOCGW09 was received without preservative. The laboratory added sufficient preservative prior to extraction and analysis.

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☐ Yes ☐ No

Comments:

All samples were received in good condition with minor exceptions. Samples MOCGW07, -GW08 and -GW11 were received with bubbles in one or more VOA vials. Sample containers without bubbles or the smallest bubbles were used for analysis.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☒ Yes ☐ No

Comments:

The sample times on 09NDMOCGW10 bottles were 1640, the CoC had 1650. Data unaffected. Sample 09NCMOCGW09 had 2 preserved polys submitted and 09NCMOCGW10 had 2 unpreserved polys submitted. The samples were field duplicates and the mis-labeling did not affect sample results.

- e. Data quality or usability affected? Explain.

Comments:

The minor errors in sample times and identification were resolved prior to analysis. Samples with bubbles greater than 6 mm were not analyzed. Sample results were unaffected.

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

The 8260 LCS had low TFT (surrogate) recovery. All other surrogates were within limits. No further action required.

c. Were all corrective actions documented?

☐ Yes ☐ No

Comments:

No corrective actions were required.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Sample results are usable for project purposes. Samples analyses past recommended holding times were flagged and are considered estimates.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

b. All applicable holding times met?

☐ Yes ☒ No

Comments:

The initial sulfate analysis was within holding time though the result exceeded the upper calibration range. Samples were reanalyzed past holding time with similar results. The affected samples are flagged E and are considered estimates.

c. All soils reported on a dry weight basis?

☐ Yes ☐ No

Comments:

All samples were water samples.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Some samples were reanalyzed past holding times (sulfate). Results are considered estimates.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

Metals analysis had reportable chromium below the PQL. Sample results are flagged B.

iii. If above PQL, what samples are affected?

Comments:

The blank chromium result was less than the PQL. Sample results were mostly less than 10 times the method blank result, all chromium results were B flagged.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Affected results are B flagged.

v. Data quality or usability affected? Explain.

Comments:

Chromium sample results are usable and considered estimates.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Not applicable

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not applicable

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Data quality objectives were met for laboratory QC accuracy and precision.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☒ Yes ☐ No

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not applicable

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Data quality objectives were met for sample surrogate recoveries.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☒ Yes ☐ No

Comments:

- ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC?
(If not, a comment explaining why must be entered below)

☐ Yes ☐ No Comments:

- iii. All results less than PQL?

☒ Yes ☐ No Comments:

- iv. If above PQL, what samples are affected?

Comments:

Not applicable

- v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for trip blanks.

e. Field Duplicate

- i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No Comments:

- ii. Submitted blind to lab?

☒ Yes ☐ No Comments:

- iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

☒ Yes ☐ No Comments:

- iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality objectives were met for field duplicate analyses.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

ii. If above PQL, what samples are affected?

Comments:

iii. Data quality or usability affected? Explain.

Comments:

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:

Title:

Date:

CS Report Name:

Report Date:

Consultant Firm:

Laboratory Name:

Laboratory Report Number:

ADEC File Number:

ADEC RecKey Number:

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☐ Yes ☐ No

Comments:

Not Applicable

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No

Comments:

Sample was received in good condition

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No

Comments:

No discrepancies were documented

- e. Data quality or usability affected? Explain.

Comments:

Not Applicable

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

Barium was detected in method blank MB 580-48580/10-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

- c. Were all corrective actions documented?

☐ Yes ☐ No

Comments:

No corrective actions were necessary.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Sample results are usable for project purposes.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

b. All applicable holding times met?

☒ Yes ☐ No

Comments:

c. All soils reported on a dry weight basis?

☐ Yes ☐ No

Comments:

Not Applicable

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Not Applicable

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

Not Applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not Applicable

v. Data quality or usability affected? Explain.

Comments:

Not Applicable

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☐ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☒ No

Comments:

Not Applicable

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Not Applicable

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not Applicable

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Not Applicable

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☐ Yes ☐ No

Comments:

Not Applicable

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☒ Yes ☐ No

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not Applicable

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Not Applicable

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☐ Yes ☐ No

Comments:

Not Applicable

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

Not Applicable

iii. All results less than PQL?

☐ Yes ☐ No

Comments:

Not Applicable

iv. If above PQL, what samples are affected?

Comments:

Not Applicable

v. Data quality or usability affected? Explain.

Comments:

Not Applicable

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☐ Yes ☒ No

Comments:

No field duplicate was submitted

ii. Submitted blind to lab?

☐ Yes ☐ No

Comments:

Not Applicable

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☐ Yes ☐ No

Comments:

Not Applicable. There was no field duplicate collected or submitted,

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Not Applicable.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No

Comments:

Sample was collected using disposable equipment.

ii. If above PQL, what samples are affected?

Comments:

Not Applicable

iii. Data quality or usability affected? Explain.

Comments:

Not Applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No

Comments:

Laboratory Data Review Checklist

Completed by:	Eric Barnhill
Title:	Environmental Scientist
Date:	October 7, 2009
CS Report Name:	NE Cape Landfill and ISCO Study
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	Test America Tacoma
Laboratory Report Number:	580-15052
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not Applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

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- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

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3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{ C}$)?

☐ Yes

☐ No

Comments:

The lab documented the temperature blank at 3.7° C and the Cooler at 5.0° C

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes

☐ No

Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes

☐ No

Comments:

All samples were received in good condition.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes

☒ No

Comments:

There were no discrepancies to document.

- e. Data quality or usability affected? Explain.

Comments:

Not applicable.

4. Case Narrative

- a. Present and understandable?

☒ Yes

☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes

☐ No

Comments:

- c. Were all corrective actions documented?

☐ Yes

☐ No

Comments:

No corrective actions were necessary.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Analytes found to be outside of detection limits were flagged and are to be considered estimates.
Data quality is sufficient for project purposes.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☐ Yes ☐ No

Comments:

Method EPA 6010A was requested on the COC, and the lab ran EPA 6010B. This substitution is acceptable.

b. All applicable holding times met?

☒ Yes ☐ No

Comments:

c. All soils reported on a dry weight basis?

☒ Yes ☐ No

Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Not Applicable

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

Not Applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not Applicable

v. Data quality or usability affected? Explain.

Comments:

Not Applicable

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☐ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Not Applicable

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Not Applicable

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Not Applicable

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

Percent recovery for samples 580-15052-1 and 580-15052-2 were outside acceptance limits –below- for both o-Terphenyl and n-Triacontane-d62; Both were “X” flagged to show that the surrogate exceeds control limits.

For the method blank and lab control sample – batch 580-49199 DCB Decachlorobiphenyl was outside acceptance limits. Both were “X” flagged to show that the surrogate exceeds control limits. For MS/MSD recovery report – batch: 580-49032 percent recovery was outside acceptance limits - below- for both o-Terphenyl and n-Triacontane-d62; Both were “X” flagged to show that the surrogate exceeds control limits.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Sample results are usable for project purposes. The flagged results are considered estimates.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

- i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples?
(if not, enter explanation below.)

☒ Yes ☐ No

Comments:

- ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC?
(If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

There was only one cooler for the shipment of samples, therefore there was no need to make a distinction between coolers.

- iii. All results less than PQL?

☒ Yes ☐ No

Comments:

- iv. If above PQL, what samples are affected?

Comments:

Not Applicable

- v. Data quality or usability affected? Explain.

Comments:

Not Applicable

e. Field Duplicate

- i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

- ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

- iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

☒ Yes ☐ No

Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Not Applicable

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No

Comments:

Samples were collected with disposable equipment that was not reused.

ii. If above PQL, what samples are affected?

Comments:

Not Applicable

iii. Data quality or usability affected? Explain.

Comments:

Not Applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No

Comments:

Laboratory Data Review Checklist

Completed by:	Marty Hannah
Title:	Project Chemist
Date:	October 7, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	TestAmerica-Tacoma
Laboratory Report Number:	580-15053
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

Relinquished by name was typed.

- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

--

3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{ C}$)?

☒ Yes ☐ No

Comments:

Three coolers were shipped, all were within range.

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No

Comments:

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☒ No

Comments:

No discrepancies were noted.

- e. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for sample shipment and preservation.

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

The DRO and RRO LCS/LCSD failed RPD limits. Samples were re-extracted past holding time with passing QC but marginal comparison on sample results.

- c. Were all corrective actions documented?

☒ Yes ☐ No

Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

DRO/RRO sample results are considered estimates. They are still usable for project purposes.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

b. All applicable holding times met?

☐ Yes ☒ No

Comments:

The trip blank was analyzed 14 days past holding time. DRO/RRO samples were re-extracted past holding time.

c. All soils reported on a dry weight basis?

☐ Yes ☐ No

Comments:

All samples were water samples.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

All samples were water samples.

e. Data quality or usability affected?

Comments:

Data quality objectives were met with noted exceptions.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

Not applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not applicable

v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for method blanks.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No

Comments:

Not applicable

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

The DRO/RRO LCS/LCSD failed to meet RPD limits but all were within acceptance limits.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

All DRO/RRO samples were affected. Samples were re-extracted past holding time with passing QC but marginal comparison of sample results.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Overall data quality for laboratory QC accuracy and precision was met with noted exceptions.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

DRO/RRO samples had surrogate recoveries outside of acceptance limits due to target analytes or high dilutions.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Samples with surrogate recoveries outside of method acceptance limits are flagged X and are considered estimates.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Samples with failed surrogate recoveries are still usable for project purposes, their results are considered estimates.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☒ Yes ☐ No

Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

iii. All results less than PQL?

☒ Yes ☐ No

Comments:

iv. If above PQL, what samples are affected?

Comments:

Not applicable

v. Data quality or usability affected? Explain.

Comments:

The trip blank was analyzed 14 days past holding time. The result was non-detect and is considered an estimate.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☒ Yes ☐ No

Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality objectives were met for field duplicate precision.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Not applicable

ii. If above PQL, what samples are affected?

Comments:

Not applicable

iii. Data quality or usability affected? Explain.

Comments:

Not applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	Marty Hannah
Title:	Project Chemist
Date:	October 12, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	TestAmerica-Tacoma
Laboratory Report Number:	580-15084
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

--

- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

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3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

The cooler temperature blank measured 0.6 degrees upon receipt at the laboratory.

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No

Comments:

Some samples were not shipped in inner plastic bags.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No

Comments:

No discrepancies were noted.

- e. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for sample shipment and documentation.

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

- c. Were all corrective actions documented?

☐ Yes ☐ No

Comments:

Some samples were reanalyzed at a dilution due to high target analytes.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Overall project data quality objectives were met with some minor QC issues.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

b. All applicable holding times met?

☐ Yes ☒ No

Comments:

Benzene and naphthalene by 8260 and TOC samples were analyzed past holding time.

c. All soils reported on a dry weight basis?

☒ Yes ☐ No

Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Project data quality objectives were met for timely analyses and reporting levels.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

Not applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not applicable

v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for method blanks.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

The naphthalene and DRO/RRO MS/MSD failed to meet recovery limits.

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Sample MOCSB14 (15084-2) did not meet 8260 and AK102/103 recovery limits.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☒ No

Comments:

The results are flagged for failed surrogate recoveries and analyses outside of holding times.

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Overall data quality for laboratory accuracy and precision was met. The sample matrix and presence of high concentrations of target analytes makes the MS/MSD recoveries difficult to evaluate. The concentrations of target analytes were greater than 4 times the spike concentration.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Samples with failed or non-reported surrogate recoveries are flagged X and are considered estimates. Samples were diluted due to presence of high concentrations of target analytes.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Overall data quality objectives were met for surrogate recoveries.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☒ Yes ☐ No

Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

iii. All results less than PQL?

☒ Yes ☐ No

Comments:

iv. If above PQL, what samples are affected?

Comments:

Not applicable

v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for trip blanks.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

☐ Yes ☒ No

Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The field duplicates failed to meet 50% RPD limits for (waiting to hear from mark Heaston)

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Not applicable

ii. If above PQL, what samples are affected?

Comments:

Not applicable

iii. Data quality or usability affected? Explain.

Comments:

Not applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	Marty Hannah
Title:	Project Chemist
Date:	October 12, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	TestAmerica-Tacoma
Laboratory Report Number:	580-15087
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not Applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

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- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

--

3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No Comments:

All samples were received in good condition.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☒ Yes ☐ No Comments:

Some sample labels were incomplete. The information was obtained from the chain of custody.

- e. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for sample shipment and documentation.

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No Comments:

- c. Were all corrective actions documented?

☐ Yes ☐ No Comments:

No corrective actions were performed.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Sample results are usable for project purposes with some qualifications. Qualified results may be considered estimates.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

b. All applicable holding times met?

☐ Yes ☒ No

Comments:

Naphthalene by method 8260 was initially analyzed within holding time but with concentrations that exceeded the instrument calibration range. Samples were reanalyzed at a dilution outside of holding times.

c. All soils reported on a dry weight basis?

☐ Yes ☐ No

Comments:

All samples were water samples.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Overall data quality objectives were met with some samples analyzed outside of holding times. The sample results from analyses outside of holding times are considered estimates.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

Not applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not applicable

v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for method blanks.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

A single LCS was analyzed for some 8260 batch analyses along with MS/MSD.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No

Comments:

Not applicable

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

The 8260 MS/MSD failed to meet recovery limits.

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

The 8260 MS/MSD failed to meet RPD limits.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Sample 15087-3 (MOCGW23) for 8260 is considered an estimate due to its failed MS/MSD. The result has already been flagged for surrogate recoveries outside of acceptance limits.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Yes, the results are flagged for failed surrogate recoveries.

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Overall project data quality objectives have been met for laboratory accuracy and precision. LCS recoveries met acceptance limits, MS/MSD recoveries for 8260 and DRO/RRO failed to meet method acceptance limits.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Samples with failed surrogate recoveries are flagged X and are considered estimates.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Samples with failed surrogate recoveries are flagged X and are considered estimates.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☒ Yes ☐ No

Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☒ Yes ☐ No

Comments:

iii. All results less than PQL?

☐ Yes ☐ No

Comments:

Yes, benzene was reported between the MDL and PQL in the trip blank.

iv. If above PQL, what samples are affected?

Comments:

Not applicable

v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for trip blanks.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

☐ Yes ☒ No

Comments:

The field duplicate did not meet RPD criteria for RRO, benzene and naphthalene.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The primary and duplicate samples were analyzed at a dilution which may have led to poor precision.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Not applicable

ii. If above PQL, what samples are affected?

Comments:

Not applicable

iii. Data quality or usability affected? Explain.

Comments:

Not applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Flags are used to identify sample results with minor QC issues. A key is at the bottom of each reduced data table to clearly identify the QC issue.

Laboratory Data Review Checklist

Completed by:	Marty Hannah
Title:	Project Chemist
Date:	October 12, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	TestAmerica-Tacoma
Laboratory Report Number:	580-15185
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not Applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

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- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

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3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No Comments:

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No Comments:

No discrepancies were noted.

- e. Data quality or usability affected? Explain.

Comments:

Project data quality objectives were met for sample shipment and documentation.

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No Comments:

- c. Were all corrective actions documented?

☐ Yes ☐ No Comments:

No corrective actions were required.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Sample results are usable for project purposes. Some results have been qualified for holding times and DRO/RRO samples were analyzed at a dilution so surrogate recoveries were not reported.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

b. All applicable holding times met?

☐ Yes ☒ No

Comments:

Naphthalene was analyzed within holding time, the results exceeded the calibration range. The samples were reanalyzed at a dilution outside of holding time.

c. All soils reported on a dry weight basis?

☐ Yes ☐ No

Comments:

All samples were water samples.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Overall data quality objectives were met for timely analyses and reporting levels.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

The DRO/RRO method blank had positive results below the PQL. Sample results were greater than 10 times greater than the method blank results. No flags were assigned.

iii. If above PQL, what samples are affected?

Comments:

Not applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

No data flags were assigned to the data table, the laboratory report had flagged the results.

v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for method blanks.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No

Comments:

Not applicable

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

The naphthalene and DRO/MS/MSDs did not meet recovery or RPD limits due to high concentrations of target analytes, which were greater than 4 times the spike amount. All LCS/LCSDs met recovery limits so matrix interference is implied.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Samples were not affected by the failed MS/MSD recoveries.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☒ No

Comments:

No flags were assigned based on failed MS/MSD recoveries.

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Sample results are usable for project purposes.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

DRO/RRO surrogates were not reported due to sample dilution.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

DRO/RRO sample results are flagged X due to surrogates not being reported due to dilution.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Sample results are usable for project purposes. Flagged results are considered estimates.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☒ Yes ☐ No

Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

iii. All results less than PQL?

☒ Yes ☐ No

Comments:

iv. If above PQL, what samples are affected?

Comments:

Not applicable

v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for trip blanks.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

☐ Yes ☒ No

Comments:

The DRO RPD was 33%, all other results met RPD limits.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Project data quality objectives were met for field duplicates.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Not applicable

ii. If above PQL, what samples are affected?

Comments:

Not applicable

iii. Data quality or usability affected? Explain.

Comments:

Not applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Data flags have been properly assigned to sample results.

Laboratory Data Review Checklist

Completed by:	Marty Hannah
Title:	Project Chemist
Date:	October 13, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	TestAmerica-Tacoma
Laboratory Report Number:	580-15434
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

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- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

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3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{ C}$)?

☒ Yes ☐ No Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No Comments:

Additional methanol was added to some samples due to the soil being composed of mostly peat.

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No Comments:

All samples were received in good condition.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☒ Yes ☐ No Comments:

Sample labels were incomplete and did not fully match CoC.

- e. Data quality or usability affected? Explain.

Comments:

Project data quality objectives were met for sample shipment and documentation.

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No Comments:

Some surrogates were outside of control limits or not reported due to dilutions and the MS/MSD failed for DRO/RRO. The method blank had positive results below the PQL. Samples not affected.

- c. Were all corrective actions documented?

☐ Yes ☒ No Comments:

No corrective actions were required.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Sample results are usable for project purposes. Some are qualified as estimates due to minor QC issues.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

b. All applicable holding times met?

☒ Yes ☐ No

Comments:

c. All soils reported on a dry weight basis?

☒ Yes ☐ No

Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Project data quality objectives were met for timely analyses and reporting levels.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

The DRO method blank had positive results between the MDL and PQL. All sample results were greater than 10 times the concentration in the method blank. No flags were assigned based on method blank results.

iii. If above PQL, what samples are affected?

Comments:

Not applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

No data flags were assigned.

v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for method blanks.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

The DRO/RRO and TOC MS/MSD failed to meet acceptance limits. Heterogeneous sample matrix is suspected.

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

The DRO/RRO and TOC MS/MSD failed to meet soil RPD limits.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Sample results were not flagged based on MS/MSD recoveries.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☒ No

Comments:

No data flags were assigned based on MS/MSD recoveries.

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Overall project data quality objectives were met for laboratory QC precision and accuracy.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☒ No

Comments:

Most GRO samples had high surrogate recoveries (200%+).DRO/RRO samples were diluted due to high concentrations of target analytes thus the surrogates were not reported due to the dilutions.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Affected samples are flagged X.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Overall data quality objectives were met for surrogates. Some results will be considered estimates due to their surrogate recoveries.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☒ Yes ☐ No

Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

iii. All results less than PQL?

☒ Yes ☐ No

Comments:

The trip blank had positive GRO results below the PQL.

iv. If above PQL, what samples are affected?

Comments:

Not applicable

v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for trip blanks.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☒ Yes ☐ No

Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality objectives were met for field duplicate precision.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Not applicable

ii. If above PQL, what samples are affected?

Comments:

Not applicable

iii. Data quality or usability affected? Explain.

Comments:

Not applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	Marty Hannah
Title:	Project Chemist
Date:	October 12, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	TestAmerica-Tacoma
Laboratory Report Number:	580-15437
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

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- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

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- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

--

3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No Comments:

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No Comments:

All samples were received in good condition.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No Comments:

No discrepancies were noted.

- e. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for sample shipment and documentation.

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No Comments:

Arsenic was reported in the method blank below the MDL but less than 5 times reported in the samples. The RRO MS/MSD failed to meet recovery limits due to high target analytes.

- c. Were all corrective actions documented?

☐ Yes ☐ No Comments:

No corrective actions were required.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Sample results are usable for project purposes.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

b. All applicable holding times met?

☒ Yes ☐ No

Comments:

c. All soils reported on a dry weight basis?

☐ Yes ☐ No

Comments:

All samples were water samples.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

Sample 15437-3 was analyzed at a 1000 dilution but had results between the MDL and PQL. The sample result is J flagged.

e. Data quality or usability affected?

Comments:

Data quality objectives were met for timely analyses and reporting levels.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

The arsenic method blank had positive results below the PQL but some sample results were less than 5 times the blank concentration. Sample results are flagged B.

iii. If above PQL, what samples are affected?

Comments:

See note above.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No

Comments:

Affected samples are flagged B.

v. Data quality or usability affected? Explain.

Comments:

Data quality objectives were met for method blanks with the noted exception.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No

Comments:

The RRO MS/MSD exceeded recovery limits.

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Sample results were not affected due to high target analyte in the MS/MSD sample.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☒ No

Comments:

No data flags were assigned based on QC recoveries.

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Overall data quality objectives were met for laboratory QC accuracy and precision.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☒ Yes ☐ No

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not applicable

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Data quality objectives were met for surrogates.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☒ Yes ☐ No

Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

iii. All results less than PQL?

☒ Yes ☐ No

Comments:

iv. If above PQL, what samples are affected?

Comments:

Not applicable

v. Data quality or usability affected? Explain.

Comments:

A 7 mm bubble was noted in one of the trip blank VOA vials.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No

Comments:

ii. Submitted blind to lab?

☒ Yes ☐ No

Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

☐ Yes ☒ No

Comments:

The field duplicate met RPD precision limits on all analytes except sulfate.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality objectives were met for field duplicate precision.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Not applicable

ii. If above PQL, what samples are affected?

Comments:

Not applicable

iii. Data quality or usability affected? Explain.

Comments:

Not applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	Marty Hannah
Title:	Project Chemist
Date:	October 7, 2009
CS Report Name:	NE Cape ISCO Study and Drum Removal
Report Date:	
Consultant Firm:	Bristol Environmental Remediation Services
Laboratory Name:	TestAmerica-Anchorage
Laboratory Report Number:	ASG0063
ADEC File Number:	
ADEC RecKey Number:	

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

☒ Yes ☐ No

Comments:

--

- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No

Comments:

Not applicable

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?

☒ Yes ☐ No

Comments:

Relinquished by was typed, not signed.
--

- b. Correct analyses requested?

☒ Yes ☐ No

Comments:

--

3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

☒ Yes ☐ No

Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☒ Yes ☐ No

Comments:

Samples were for DRO only. Samples were received with some ice in the samples.

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☒ Yes ☐ No

Comments:

Two of the three samples were received partly frozen.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No

Comments:

No discrepancies were noted except for partially frozen samples.

- e. Data quality or usability affected? Explain.

Comments:

Data quality was unaffected from being partially frozen. All results are usable for project purposes.

4. Case Narrative

- a. Present and understandable?

☒ Yes ☐ No

Comments:

- b. Discrepancies, errors or QC failures identified by the lab?

☒ Yes ☐ No

Comments:

No discrepancies were noted.

- c. Were all corrective actions documented?

☐ Yes ☐ No

Comments:

No corrective actions were required.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☒ Yes ☐ No

Comments:

b. All applicable holding times met?

☒ Yes ☐ No

Comments:

c. All soils reported on a dry weight basis?

☐ Yes ☐ No

Comments:

Water samples only.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☒ Yes ☐ No

Comments:

e. Data quality or usability affected?

Comments:

Data quality objectives were met for timely analyses and reporting levels.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☒ Yes ☐ No

Comments:

ii. All method blank results less than PQL?

☒ Yes ☐ No

Comments:

iii. If above PQL, what samples are affected?

Comments:

Not applicable

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

No data flags were assigned.

v. Data quality or usability affected? Explain.

Comments:

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No

Comments:

Not applicable

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Not applicable

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not applicable

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Data quality objectives were met for laboratory accuracy and precision.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☒ Yes ☐ No

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No

Comments:

Not applicable

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Data quality objectives were met for surrogate recoveries.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☐ Yes ☐ No

Comments:

Not applicable, samples were submitted for DRO analyses only.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No

Comments:

Not applicable

iii. All results less than PQL?

☐ Yes ☐ No

Comments:

Not applicable

iv. If above PQL, what samples are affected?

Comments:

Not applicable

v. Data quality or usability affected? Explain.

Comments:

Not applicable

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☐ Yes ☒ No

Comments:

A laboratory duplicate analysis was performed on sample ASG0063-3. It met RPD limits.

ii. Submitted blind to lab?

☐ Yes ☐ No

Comments:

Not applicable

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☒ Yes ☐ No

Comments:

The duplicate met precision criteria

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

All results are usable for project purposes without qualification.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

Not applicable

ii. If above PQL, what samples are affected?

Comments:

Not applicable

iii. Data quality or usability affected? Explain.

Comments:

Not applicable

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

No flags were assigned to any data from this SDG.

APPENDIX I

Analytical Waste Characterization Tables

Table 1 Drum Pad Pre-Construction Soil

Sample ID	09NC007SB01	09NC007SB02	09NC007SB03 ^D	09NC007SB04	Site Specific Cleanup Levels
Laboratory ID	580-14430-1	580-14430-2	580-14430-3	580-14430-4	
Matrix	Soil	Soil	Soil	Soil	
Sample Location	007-01	007-02	007-02	007-03	
Date Sampled	7/7/2009	7/7/2009	7/7/2009	7/7/2009	
BTEX	Results are in (ug/Kg)				
Benzene	ND (0.97)	ND (2.6)	ND (2.8)	ND (2.8)	2,000
Toluene	ND (1.0)	ND (2.5)	4.8 J	ND (2.6)	Not Stated
Ethylbenzene	ND (1.5)	ND (3.9)	ND (4.2)	ND (4.1)	Not Stated
p & m-Xylene	ND (3.2)	ND (8.2)	8.9 J	ND (8.6)	Not Stated
o-Xylene	ND (0.93)	3.0 J	3.1 J	ND (2.5)	Not Stated
MTBE	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	Not Stated
PCBs	Results are in (ug/Kg)				
All other Aroclors*	ND (7.9)	ND (8.3) UML	ND (8.4) UML	ND (8.2)	1,000
Aroclor 1254	ND (2.1)	670 MLJ	2,200 MLJ	ND (2.2)	1,000
Fuels	Results are (mg/Kg)				
GRO by AK101	1.7 BJ	20 J	18 J	0.68 J B	Not Stated
DRO by AK102	630	14,000	14,000 JH	46	9,200
RRO by AK103	4,600	120,000	130,000	220	9,200
Metals	Results are (mg/Kg)				
Barium	18	4	91	23	Not Stated
Cadmium	ND (0.084)	ND (0.086)	ND (0.081)	ND (0.08)	Not Stated
Chromium	4.7	9.6	12	7.5	Not Stated
Lead	19 J	13 J	22 J	17	Not Stated
Selenium	17	17	21	19	Not Stated
Silver	ND (0.047)	ND (0.049)	ND (0.046)	ND (0.045)	Not Stated
Mercury	ND (0.0059)	0.015 J	0.013 J	ND (0.0057)	Not Stated

Notes:

*All other Aroclors include: 1016, 1221, 1232, 1242, 1248, 1260

B-Compound was found in blank and sample.

J - The analyte was positively identified; the quantitation is an estimation.

L - Data has a low bias

M - One or more QC criteria failed and the result is estimated

UM - one or more QC criteria failed and the reporting limit is estimated.

H-The result has a potential high bias.

BOLD-Indicates result is above site specific cleanup level

^D Indicates duplicate of previous sample

Table 2 Drum Pad Post-Construction Soil

Sample ID	09NC007SB05	09NC007SB06 ^D	09NC007SB07	09NC007SB08	Trip Blank	Site Specific Cleanup Levels
Laboratory ID	580-15052-1	580-15052-2	580-15052-3	580-15052-4	580-15052-5	
Matrix	Soil	Soil	Soil	Soil	Soil	
Sample Location	007-02	007-02	007-03	007-01	NA	
Date Sampled	8/14/2009	8/14/2009	8/14/2009	8/18/2009	8/14/2009	
BTEX	Results are in (µg/kg)					
Benzene	ND (3.2)	ND (2.8)	ND (2.9)	ND (2.7)	ND (2.5)	2,000
Toluene	13 B	16 B	14 B	10 B	4.8 J	Not Stated
Ethylbenzene	ND (4.8)	ND (4.2)	ND (4.2)	ND (4.0)	ND (3.7)	Not Stated
p & m-Xylene	ND (10)	ND (8.9)	ND (8.9)	ND (8.5)	ND (7.8)	Not Stated
o-Xylene	ND (3.0)	ND (2.6)	ND (2.6)	ND (2.5)	ND (2.3)	Not Stated
PCBs	Results are in (µg/kg)					
PCBs-All* (ug/Kg)	ND (8.4)	ND (8.7)	ND (8.4)	ND (8.2)	NR	1,000
Aroclor 1254	24	26	ND (2.2)	ND (2.1)	NR	1,000
Fuels	Results are (mg/kg)					
GRO by AK101	94	67	ND (0.52)	ND (0.50)	ND (0.46)	Not Stated
DRO by AK102	8,200	9,500	150	ND	NR	9,200
RRO by AK103	77,000	80,000	1,100	29 J	NR	9,200
Metals	Results are (mg/kg)					
Arsenic	4.8	4.7	6.0	7.2	NR	11
Barium	61	63	26	24	NR	Not Stated
Cadmium	ND (0.084)	ND (0.085)	ND (0.084)	ND (0.082)	NR	Not Stated
Chromium	9.5	11	6.4	9.0	NR	Not Stated
Lead	16	15	19	18	NR	Not Stated
Selenium	19	17	18	17	NR	Not Stated
Silver	ND (0.047)	ND (0.048)	ND (0.047)	ND (0.046)	NR	Not Stated
Mercury	0.017 J	ND (0.0065)	ND (0.0062)	0.012 J	NR	Not Stated

Notes:

*Includes six types of Aroclor: 1016, 1221, 1232, 1242, 1248, 1260

J = Result is less than the RL but greater than or equal to the MDL

and the concentration is an approximate value.

B = Compound was found in blank and sample.

NR = Analysis Not Requested

^D Indicates duplicate of previous sample

BOLD-Indicates result is above site specific cleanup level.

Table 3 Oil Waste Characterization

Sample ID	09NC007DW01	09NC007DW02^D
Laboratory ID	580-14839-1	580-14839-2
Matrix	Waste-Oil	Waste-Oil
Sample Location	007-12	007-12
Date Sampled	8/6/2009	8/6/2009
TCLP VOCs	Results are in (µg/L)	
Vinyl chloride	ND (9.1)	ND (9.1)
1,1-Dichloroethene	ND (6.6)	ND (6.6)
2-Butanone	ND (42)	ND (42)
Chloroform	ND (5.7)	ND (5.7)
Carbon tetrachloride	ND(10)	ND(10)
Benzene	9.6 J	6.2 J
1,2-Dichloroethane	ND (7.6)	ND (7.6)
Trichloroethene	ND (5.6)	ND (5.6)
Tetrachloroethene	ND (6.3)	ND (6.3)
Chlorobenzene	ND (8.6)	ND (8.6)
PCBs	Results are in (mg/kg)	
PCB-1016	ND (0.15)	ND (0.15)
PCB-1221	ND (0.38)	ND (0.37)
PCB-1232	ND (0.33)	ND (0.32)
PCB-1242	ND (.10)	ND (.097)
PCB-1248	ND (.062)	ND (.060)
PCB-1254	ND (.10)	ND (.097)
PCB-1260	ND (.14)	ND (.14)
6020 Metals	Results are in (mg/kg)	
Arsenic	0.0045 J	.015 J
Cadmium	0.69	0.68
Chromium	2.5	2.6
Lead	200	200

Notes:

J = Result is less than the RL but greater than or equal to the MDL
and the concentration is an approximate value.

NR = Analysis Not Requested

^D Indicates duplicate sample

Table 4 Drummed Antifreeze Waste Characterization

Sample ID	09NC007DW07	09NC007DW08 ^D	Trip Blank
Laboratory ID	580-14839-11	580-14839-12	580-14839-13
Matrix	Water-Antifreeze	Water-Antifreeze	Water-Antifreeze
Sample Location	007-18	007-18	N/A
Date Sampled	8/7/2009	8/7/2009	8/6/2009
BENZENE (TCLP)	Results are in (ug/L)		
Benzene	ND (5.7)	ND (5.7)	ND (0.057)
Nonhalogenated Organic Compounds	Results are in (ug/L)		
Ethylene glycol	1,400,000,000 J	840,000,000 J	NR
Metals (TCLP)	Results are in (mg/L)		
Arsenic	2.9 J	0.60 J	NR
Barium	0.11	0.11	NR
Cadmium	ND (0.015)	ND (0.015)	NR
Chromium	ND (0.033)	ND (0.033)	NR
Lead	0.4	0.3	NR
Selenium	ND (0.020)	ND (0.020)	NR
Silver	ND (0.0085)	ND (0.0085)	NR

Note:

J - The analyte was positively identified; the quantitation is an estimation.

NR-Analysis Not Requested

^D Indicates duplicate sample

Table 5 Oily Sludge and Kitty Litter Waste Characterization

Sample ID	09NC007DW03	09NC007DW04 ^D	09NC007DW05	09NC007DW06 ^D
Laboratory ID	580-14839-3	580-14839-4	580-14839-5	580-14839-6
Matrix	Solid -Oily Sludge	Solid -Oily Sludge	Solid -Oily Sludge	Solid -Oily Sludge
Sample Location	007-13	007-13	007-14	007-14
Date Sampled	8/6/2009	8/6/2009	8/6/2009	8/6/2009
TCLP VOCs	Results in (ug/L)			
Vinyl chloride	ND (9.1)	ND (9.1)	ND (9.1)	ND (9.1)
1,1-Dichloroethene	ND (6.6)	ND (6.6)	ND (6.6)	ND (6.6)
2-Butanone	ND (42)	ND (42)	ND (42)	ND (42)
Chloroform	ND (5.7)	ND (5.7)	ND (5.7)	ND (5.7)
Carbon tetrachloride	ND (10)	ND (10)	ND (10)	ND (10)
Benzene	10 J	ND(5.7)	ND(5.7)	ND(5.7)
1,2-Dichloroethane	ND (7.6)	ND (7.6)	ND (7.6)	ND (7.6)
Trichloroethene	ND (5.6)	ND (5.6)	ND (5.6)	ND (5.6)
Tetrachloroethene	ND (6.3)	ND (6.3)	ND (6.3)	ND (6.3)
Chlorobenzene	ND (8.6)	ND (8.6)	ND (8.6)	ND (8.6)
PCBs	Results in (mg/Kg)			
PCB-1016	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.031)
PCB-1221	ND (0.079)	ND (0.080)	ND (0.079)	ND (0.0077)
PCB-1232	ND (0.069)	ND (0.070)	ND (0.069)	ND (0.0068)
PCB-1242	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.0020)
PCB-1248	2.4 J	2 J	ND (0.013)	ND (0.0029)
PCB-1254	ND (0.021)	ND (0.021)	0.88	1.1
PCB-1260	ND (0.029)	ND (0.030)	ND (0.030)	ND (0.029)
Metals (TCLP)	Results in (mg/L)			
Lead	0.49 J	0.19 J	1.2 J	ND (0.0017)
Cadmium	0.0079 J	0.0066 J	0.013	ND (0.0015)
Barium	0.7	0.76	0.97	0.45
Silver	ND (0.00085)	ND (0.00085)	ND (0.00085)	ND (0.00085)
Arsenic	0.012 J	0.014 J	0.0068 J	0.010 J
Selenium	0.027 J	0.0096 J	ND (0.0020)	ND (0.0020)
Chromium	0.0042 J	0.0067 J	0.0076	0.0062 J

Note:

J - The analyte was positively identified; the quantitation is an estimation.

NR-Analysis Not Requested

^D Indicates duplicate sample

Bold indicates results are above site specific cleanup levels

Table 6 Site 7 Bulk Soil Waste Characterization

Sample ID	NC007BW01	NC007BW02	NC007BW03	NC007BW04 ^D	NC007BW05	NC007BW06	NC007BW07	NC007BW08
Laboratory ID	580-14827-1	580-14827-2	580-14827-3	580-14827-4	580-14827-5	580-14827-6	580-14827-7	580-14827-8
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Location	007-05	007-06	007-07	007-07	007-08	007-09	007-10	007-11
Date Sampled	8/1/2009	8/1/2009	8/1/2009	8/1/2009	8/1/2009	8/1/2009	8/1/2009	8/4/2009
BENZENE (TCLP)	Results are in (µg/L)							
Benzene	ND (5.7)	ND (5.7)	ND (5.7)	ND (5.7)	ND (5.7)	ND (5.7)		
PCBs	Results are in (mg/kg)							
All other PCBs*	ND (0.011)	ND (0.011)	ND (0.01)	ND (0.0098) UML	ND (0.01)	ND (0.0099)	ND (0.011)	ND (0.011)
Aroclor 1254	0.36 J	1 J	0.033 J	ND (0.0026) UML	ND (0.0026)	ND (0.0026)	0.4	ND (0.0028)
Aroclor 1260	0.37 M	0.035 M	0.059 M	0.032 ML	0.11 M	0.067 M	0.16 M	0.043 M
Fuels	Results are (mg/kg)							
DRO by AK102	1,300 J	11,000 J	4,400 J	3,200 J	2,500 J	4,000 J	9,200 J	8,600 J
Metals (TCLP)	Results are (mg/L)							
Arsenic	ND (0.0047)	0.0052 J	ND (0.0047)	ND (0.0047)	ND (0.0047)	ND (0.0047)	ND (0.0047)	ND (0.0047)
Barium	0.54	0.56	0.51	0.55	0.53	0.47	0.54	0.66
Cadmium	0.016	0.017	0.0051	0.0049	0.031	0.0037 J	0.019	0.0099 J
Chromium	0.0053 J	0.0044 J	0.004 J	0.0039 J	0.0039 J	ND (0.0033)	0.0033	ND (0.0033)
Lead	1.4	0.19	ND (0.017)	ND (0.017)	ND (0.017)	ND (0.017)	0.14	0.44
Selenium	ND (0.002)	ND (0.002)	0.0064 J	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.0076 J
Silver	ND (0.00085)	ND (0.00085)	ND (0.00085)	ND (0.00085)	ND (0.00085)	ND (0.00085)	ND (0.00085)	ND (0.00085)
Mercury	0.00049 J	ND (0.00041)	ND (0.00041)	ND (0.00041)	ND (0.00041)	ND (0.00041)	0.00049	ND (0.00041)

Notes:

* All other PCBs includes five types of Aroclor: 1016, 1221, 1232, 1242, 1248

J - The analyte was positively identified; the quantitation is an estimation.

M - A matrix effect was present.

UM - The result is not detected. A matrix effect was present.

^D Indicates duplicate of previous sample

Bold indicates results exceed site specific cleanup levels

Table 7 Drum Pad Water Samples Sample Event #1

Sample ID	09NC007WA01	09NC007WA02 ^D	Trip Blank
Laboratory ID	580-14747-1	580-14747-2	580-14747-3
Matrix	Water	Water	Water
Sample Location	007-004	007-004	NA
Date Sampled	8/3/2009	8/3/2009	8/3/2009
BTEX	Results are in (µg/L)		
Benzene	ND (0.057)	ND (0.057)	ND (0.057)
Toluene	ND (0.076)	ND (0.076)	ND (0.076)
Ethylbenzene	ND (0.061)	ND (0.061)	ND (0.061)
p & m-Xylene	ND (0.11)	ND (0.11)	ND (0.11)
o-Xylene	ND (0.080)	ND (0.080)	ND (0.080)
PCBs	Results are in (µg/L)		
All other Aroclors*	ND (0.073)	ND (0.073)	NR
Aroclor 1260	0.22	0.2	NR
Metals	Results are in (µg/L)		
Arsenic	ND (0.24) UJ	2.1 J	NR
Barium	93	93.0	NR
Cadmium	0.5 J	0.47 J	NR
Chromium	12	12.0	NR
Lead	92	93.0	NR
Selenium	3.3	2.5	NR
Silver	0.16 J	0.18 J	NR
Mercury	ND (0.47)	ND (0.41)	NR
PAHs	Results are in (µg/L)		
Naphthalene	0.049 J	0.083 J	NR
2-Methylnaphthalene	0.6 J	0.7 J	NR
1-Methylnaphthalene	0.55	0.6	NR
Acenaphthylene	ND (0.011) UJ	0.1 J	NR
Acenaphthene	ND (0.01) UJ	0.6 J	NR
Fluorene	0.24 J	0.1 J	NR
Phenanthrene	0.19 J	0.3 J	NR
Anthracene	ND (0.0083) UJ	0.33 J	NR
Fluoranthene	0.68	0.6	NR
Pyrene	1.3	1.3	NR
Benzo[a]anthracene	0.23	0.2	NR
Chrysene	1.5	1.5	NR
Benzo[b]fluoranthene	0.37	0.4	NR
Benzo[k]fluoranthene	0.079 J	0.1	NR
Benzo[a]pyrene	0.59 J	ND (0.21) UJ	NR
Indeno[1,2,3-cd]pyrene	0.11	0.2	NR
Dibenz(a,h)anthracene	0.10 JM	0.082 JM	NR
Benzo[g,h,i]perylene	0.3	0.3	NR
GLYCOL	Results are in (µg/L)		
Ethylene glycol	37,000 QL	36,000 QL	NR

Notes:

*All other Aroclors include; 1016, 1221, 1232, 1242, 1248, 1260

J - The analyte was positively identified; the quantitation is an estimation.

L - Data has a low bias

M - A matrix effect was present.

NR-Analysis Not Requested

^D-Indicates duplicate of previous sample

Q - One or more QC criteria failed and the result is estimated

UJ - The analyte was analyzed for, but not detected at the MDL. The reporting limit is an estimate.

Table 8 Drum Pad Water Samples, Sampling Event 2

Sample ID	09NC007WA03	09NC007WA04 ^D	Trip Blank
Laboratory ID	580-14863-1	580-14863-2	580-14747-3
Matrix	Water	Water	Water
Sample Location	007-004	007-004	NA
Date Sampled	8/8/2009	8/8/2009	8/8/2009
BTEX	Results are in (µg/L)		
Benzene	ND (0.057)	ND (0.057)	ND (0.057)
Toluene	0.3 J	0.37 J	0.077 J
Ethylbenzene	ND (0.061)	ND (0.061)	ND (0.061)
p & m-Xylene	0.28 B	0.36 B	0.14 B
o-Xylene	0.23 J	0.26 J	ND (0.080)
PCBs	Results are in (µg/L)		
PCBs-All* (µg/kg)	ND (0.07)	ND (0.07)	NR
Aroclor 1254	0.3 J	0.26 J	NR
Metals	Results are in (µg/L)		
Arsenic	9.2	8.0	NR
Barium	92	83	NR
Cadmium	0.85 J	0.66 J	NR
Chromium	7.7	7.6	NR
Lead	120	110	NR
Selenium	0.35 J	0.4 J	NR
Silver	0.26	0.22 J	NR
Mercury	0.083 J	ND (0.041)	NR
PAHs	Results are in (µg/L)		
Naphthalene	0.31	0.25 QH	NR
2-Methylnaphthalene	0.2QH	ND (0.03) UJ	NR
1-Methylnaphthalene	ND (0.012)	ND (0.012)	NR
Acenaphthylene	1 QH	0.57 QH	NR
Acenaphthene	0.1 QH	0.06 JQH	NR
Fluorene	0.13 QH	0.28 QH	NR
Phenanthrene	0.21 QH	0.15 JBQH	NR
Anthracene	0.18 B	0.15 BQH	NR
Fluoranthene	0.55 QH	0.52 QH	NR
Pyrene	0.76QH	0.71QH	NR
Benzo[a]anthracene	0.12 QH	0.11 QH	NR
Chrysene	0.88 QH	0.87 QH	NR
Benzo[b]fluoranthene	0.23 QH	0.27 QH	NR
Benzo[k]fluoranthene	0.074 JQH	0.033 JQH	NR
Benzo[a]pyrene	0.067 JQH	0.038 JQH	NR
Indeno[1,2,3-cd]pyrene	0.054 JQH	0.057 JQH	NR
Dibenz(a,h)anthracene	0.05 JQH	0.056 JQH	NR
Benzo[g,h,i]perylene	0.14QH	0.18QH	NR
GLYCOL	Results are in (ug/L)		
Ethylene glycol	11,000	9,800	NR

Notes:

*Includes six types of Aroclor: 1016, 1221, 1232, 1242, 1248, 1260

B - Compound was found in blank and sample.

H - Data has a high bias

J - The analyte was positively identified; the quantitation is an estimation.

M - A matrix effect was present.

NR-Analysis Not Requested

Q - One or more QC criteria failed and the result is estimated

^D-Indicates duplicate of previous sample

Table 9 ISCO Soil Waste Characterization (Drill Cuttings)

Sample ID	09NC007BW09	09NC007BW10	09NC007BW11 ^D	09NC007BW12
Laboratory ID	580-14839-7	580-14839-8	580-14839-9	580-14839-10
Matrix	Soil	Soil	Soil	Soil
Sample Location	007-15	007-16	007-16	007-17
Date Sampled	8/6/2009	8/6/2009	8/6/2009	8/6/2009
Benzene (TCLP)	Results are in (ug/L)			
Benzene	ND (5.7)	ND (5.7)	ND (5.7)	ND (5.7)
PCBs	Results are in (mg/Kg) **			
PCB-1016	ND (0.0030)	ND (0.0031)	ND (0.0031)	ND (0.0031)
PCB-1221	ND (0.0075)	ND (0.0077)	ND (0.0078)	ND (0.0076)
PCB-1232	ND (0.0066)	ND (0.0068)	ND (0.0069)	ND (0.0067)
PCB-1242	ND (0.0020)	ND (0.0020)	ND (0.0021)	ND (0.0020)
PCB-1248	ND (0.0012)	ND (0.0013)	ND (0.0013)	ND (0.0012)
PCB-1254	ND (0.0020)	ND (0.0020)	ND (0.0021)	ND (0.0020)
PCB-1260	0.042 J	0.42 J	0.057 J	0.074 J
FUELS	Results are in (mg/Kg) **			
DRO	4,700 J	2,500 J	3,800 J	4,600 J
METALS (TCLP)	Results are in (mg/L)			
Lead	ND (0.0017)	ND (0.0017)	ND (0.0017)	ND (0.0017)
Cadmium	ND (0.0015)	ND (0.0015)	ND (0.0015)	ND (0.0015)
Barium	0.49	0.49	0.51	0.6
Silver	ND (0.00085)	ND (0.00085)	ND (0.00085)	ND (0.00085)
Arsenic	0.0096 J	0.0084 J	0.011 J	0.014 J
Selenium	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)
Chromium	0.0054 J	0.0054 J	0.0052 J	0.0066 J

Note:

ISCO = In-situ Chemical Oxidation

J - The analyte was positively identified; the quantitation is an estimation.

NR-Analysis Not Requested

^D Indicates duplicate sample

** Sample results are reported on a wet-weight basis due to lab error.

Table 10 Camp Ash Waste Characterization

SAMPLE ID	Camp Ash
Laboratory ID	580-14977-1
Matrix	Ash
Date Sampled	8/9/2009
METALS (TCLP)	Results are mg/kg
Arsenic	0.041 J
Barium	0.300
Cadmium	ND (0.0015)
Chromium	0.0098 J
Lead	2.7
Selenium	ND (0.002)
Silver	ND (0.00085)

Notes:

J- Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

APPENDIX J

USACE Comments and Bristol Response to Comments

STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

555 Cordova Street
Anchorage, AK 99501
PHONE (907) 269-3053
FAX (907) 269-7649
www.dec.state.ak.us

File No: 475.38.013

February 16, 2011

Carey Cossaboom, Project Manager
U.S. Army Corps of Engineers Alaska Dist.
CEPOA-PM-C-FUDS
P.O. Box 6898
JBER, AK 99506-6898

Re: ADEC Approval of the Final August 2010 Northeast Cape Summary
Report for the Main Operation Complex Area Phase I In-Situ Chemical
Oxidation

Dear Mr. Cossaboom:

Thank you for providing The Alaska Department of Environmental Conservation Contaminated Sites Program (ADEC) with a copy of the Final Northeast Cape Summary Report for the Main Operation Complex Area Phase I In-Situ Chemical Oxidation dated August, 2010, which was received by ADEC on September 21, 2010. ADEC submitted comments and revision requests earlier in 2010 which were made and included in the final summary report. ADEC has approved and is filed this report as the final copy on record.

Please contact me at (907) 269-3053 or curtis.dunkin@alaska.gov if you have any questions regarding this letter.

Sincerely,



Curtis Dunkin
Environmental Program Specialist

Cc Molly Welker, Bristol ERS, LLC (via email)