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SECOR

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March 5, 2007

Mr. Michael Noll
DXT SERVICES LLC
Approved Service Provider of ConocoPhillips
Risk Management & Remediation
11921 - 185th Avenue SE
Snohomish, WA 98290

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DEC
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RE: Biopile Treatment and Sampling
Former Tosco Bulk Plant No. 0581 (ConocoPhillips Site No. 923, RMR # 0923)
703 South Nordic Drive, Petersburg, Alaska

Dear Mr. Noll:

The following presents the results of soil treatment and sampling completed by SECOR International, Inc. (SECOR) at ConocoPhillips Site No. 0923 located at 703 South Nordic Drive in Petersburg, Alaska (Figure 1). The work was completed in two stages over the following dates; August 13th to September 2nd and September 15th to September 20th, 2006.

The scope of work completed was essentially consistent with the scope of work outlined in SECOR's work plan dated August 2, 2006. The work consisted of treating approximately 950 cubic yards of soils situated in a biopile. Treatment was conducted by DMC Technologies Inc. (DMC Tech). The treatment was designed to remediate the biopile soils and evaluate this method for remediation of in-situ impacted soils situated by the former loading rack and associated concrete pad. In addition to soil treatment, the following tasks, not outlined in the workplan, were completed:

- Further assessment of in-situ soils located below the liner of the biopile, and;
- Soil delineation northwest of the fenced area of the former loading rack and concrete containment pad.

Details and results are presented below.

SITE DESCRIPTION

The site is currently a non-operating bulk plant located at the southeast corner of the intersection between South Nordic Drive and Tango Street in Petersburg, Alaska (Figure 1). The site covers approximately 0.4 acres. The bulk plant was constructed in the 1930s and 1940s, and upgraded in 1994 and 1995. Unocal owned and operated the bulk plant until 1992. Alaska Fuel Service became the operator of the bulk plant in 1992. Unocal sold the property to Tosco in 1997. Tosco then sold the property to Alaska Fuel Service in August 1998. The current property owner and former site operator is Petro Marine, who acquired the property from Alaska Fuel Service in 1999.

Existing site features include a warehouse with an attached platform area, a vacant office, seven aboveground storage tanks (ASTs) in a bermed tank farm area (one 70,700-gallon, one 108,000-gallon, one 189,000-gallon, and four 40,000-gallon ASTs installed on the site's east area during facility upgrade activities in July 1994), and two oil/water separators. The tank farm area and associated aboveground piping are surrounded by an 8-foot high concrete containment wall equipped with a concrete liner. Existing site features are shown on Figure 2. Former site features include the overhead

truck loading rack, a garage, aboveground piping connecting the AST pumping station to the truck loading rack, nine ASTs (one 70,700-gallon, one 189,000-gallon, and seven 40,000-gallon ASTs) in a former tank farm area located directly west of the current tank farm, a pumping station associated with the current ASTs, a marine transfer dock, underground piping connecting the AST pumping station to the former marine dock and a heating oil AST by the office. The 70,700-gallon and 189,000-gallon ASTs were apparently moved from the former tank farm area to the new tank farm in 1994.

As of January 2006, the bulk plant terminal ceased operation. Figure 2 presents the current site configuration. Petro Marine has recently removed piping and other structures at the site and remediation activities are planned to continue in 2007.

BACKGROUND

Several assessments of the site have been completed by various consultants over the years. GeoEngineers, Inc. (GeoEngineers) conducted environmental assessments at the site in May 1993 and March 1994 (prior to the removal of the former tank farm). Three hand auger borings (HB-1 through HB-3) and four test pits (TP-1 through TP-4) were advanced to depths ranging from 3.5 to 12 feet below grade in May 1993. Soil samples were collected at depths ranging from 2 to 10 feet below grade. Eight additional hand auger borings (HA-4 through HA-11) were advanced to depths ranging from 0.8 to 3 feet below grade in March 1994. Soil samples were collected from all borings except HA-7 at depths ranging from 0.2 to 1.5 feet below grade. Soil samples were tested for gasoline range organics (GRO) and diesel range organics (DRO). Soil samples collected from the hand augered borings were also tested for benzene, toluene, ethylbenzene, and total xylenes (BTEX). A groundwater sample from one test pit was also analyzed for BTEX and total lead and did not contain either constituent. Fourteen soil samples contained DRO (260 to 410,000 milligrams per kilogram (mg/kg)). Two soil samples contained GRO (2,900 and 3,380 mg/kg) and total BTEX (81.6 and 113.3 mg/kg).

Following the facility upgrade activities in 1994, soils in the former tank farm area were excavated to depths ranging from 5 to 7.5 feet below grade. Twelve confirmation soil samples (BPC-1 through BPC-12) were collected from the excavation. None of the confirmatory soil samples contained DRO above 1,000 mg/kg.

GeoEngineers excavated nine additional test pits (TP-1 through TP-9) in the former tank farm area in June 1995. The test pits were excavated to depths ranging from 7 to 9 feet below grade and soil samples were collected at depths ranging from 1 to 9 feet below grade. Ten soil samples contained DRO at concentrations ranging from 1,900 to 30,000 mg/kg and one soil sample contained a total BTEX concentration of 17.88 mg/kg.

In June 1996, GeoEngineers supervised the excavation and removal offsite of approximately 2,000 cubic yards of petroleum-contaminated soil (PCS). The soils were removed from beneath the current location of the tank farm.

GeoEngineers constructed an onsite biotreatment mound system (biopile) on the former tank farm location in September 1996 to treat approximately 800 cubic yards of PCS removed from the former tank farm excavation. GeoEngineers anticipated the operation of the vented biopile would require 24 months to decrease DRO concentrations in the soil to less than the cleanup standards. The established standards were specified in a letter dated June 14, 1995 from the Alaska Department of Environmental Conservation (ADEC) stating cleanup levels as the following: DRO (1,000 mg/kg); GRO (100 mg/kg); benzene (0.5 mg/kg); and total BTEX (15.0 mg/kg).

Four soil samples (BPC-13 through BPC-16) were collected from the biopile in September 1996, at depths ranging from 0.5 to one foot. One soil sample contained DRO at a concentration of 1,200 mg/kg. All other analytical results for DRO, GRO and BTEX were below the ADEC site cleanup levels.

In September 1996, GeoEngineers installed six geoprobe groundwater monitoring wells (GP-1 through GP-6) along South Nordic Drive north of the bulk plant. GeoEngineers reported the depth to groundwater in the wells ranged from 8.7 to 9.3 feet below grade. Groundwater samples collected from all wells except GP-5 (insufficient sample volume) in September 1996 were analyzed for GRO and BTEX. Groundwater samples from GP-5 and GP-6 were also analyzed for total dissolved solids (TDS) and salinity. The sample from GP-6 contained 5.7 micrograms per liter (µg/L) of benzene. All other results were below the laboratory method detection limit or below the ADEC cleanup levels.

In May 1998, GeoEngineers personnel collected 16 soil samples (BPS-1 through BPS-16) from the biopile at depths ranging from 1.5 to 5 feet below grade. Ten samples with the highest field screening results were analyzed for DRO. Two samples were also tested for GRO and BTEX. Four samples containing DRO concentrations (ranging from 1,050 to 2780 mg/kg) exceeded the ADEC cleanup level of 1,000 mg/kg. GeoEngineers collected a groundwater sample from GP-1 in May 1998 (all other wells were dry), and the sample was analyzed for BTEX, sodium and chloride. BTEX compounds were not detected in the water sample. Sodium and chloride were detected in the water sample at 90,100 µg/L and 60.8 µg/L respectively.

During the May 1998 sampling event, GeoEngineers also conducted biopile system monitoring and maintenance. Their work included removing 250 to 300 gallons of water from the biopile; reversing the airflow on one of the three upper manifold pipes to create a vacuum to extract vapors from the biopile; and measuring the airflow and vapor emissions from the biopile. GeoEngineers also collected eight soil samples (SS-1 through SS-8) at depths ranging from one to 2.5 feet below grade to characterize surface soil conditions near the truck loading rack. The soil samples consisted of brown organic silts, sandy silts and gravels. The samples were analyzed for DRO, GRO and BTEX. DRO concentrations ranged from 8.13 mg/kg in sample SS-2 to 18,600 mg/kg in sample SS-6. GRO concentrations were detected in SS-4 at 6.26 mg/kg. The laboratory reported that GRO and BTEX reporting limits were elevated due to a high concentration of extractable diesel hydrocarbons.

Noll Environmental, Inc. (Noll Environmental) personnel collected groundwater samples from five site wells (GP-1 through GP-4 and GP-6) and 17 soil samples (BPS-1 through BPS-17) from the biopile in October 1998. Groundwater samples were collected from the wells using a peristaltic pump. Soil samples were collected from the biopile at 1.5 to 3.5 feet using a hand auger. The wells were sampled without prior purging, and the samples were analyzed for BTEX. Groundwater samples collected from wells GP-1 through GP-3 were also tested for TDS and salinity. Ten soil samples with the highest field screening results were analyzed for DRO, GRO and BTEX. Four samples contained DRO (1,040 to 1,830 mg/kg) exceeding the ADEC cleanup level.

Smith Bayliss LeResche, Inc. (SBL) conducted an assessment at the site in January 1999. Seventeen borings were advanced (TB01 through TB17) to approximately 10 feet below grade in the following areas: top loading rack; AST pumping station; aboveground product piping; the former tank farm; biopile; and oil/water separators. Three additional soil samples were collected from the beach sediments in the following locations: north of the bulk plant; on the beach below the fuel rack area and an arbitrary location down the beach for a background sample.

Soil samples were analyzed for DRO, GRO and BTEX. Four samples (TB06, TB07, TB09, TB10) located east of the concrete containment pad and west of the shop/main warehouse building contained DRO (1,700 to 7,800 mg/kg) exceeding the ADEC cleanup level, and three samples (TB07, TB10 and TB15) contained GRO (100 to 180 mg/kg) exceeding the ADEC cleanup level (100 mg/kg). Three additional samples (TB05, TB13, and TB14) contained DRO concentrations (1,400 to 2,400 mg/kg) exceeding the ADEC cleanup level.

In July 1999, Noll Environmental personnel collected 10 soil samples (BPS-1, BPS-3, BPS-5, BPS-7, BPS-8, BPS-10, BPS-12, and BPS-15 through BPS-17) from the biopile. All six wells (GP-1 through GP-6) were dry and no groundwater samples were collected. Soil samples were collected from the biopile at 1.8 to 2 feet below grade with a hand auger. Existing patches in the biopile mound cover

were opened to collect soil samples and the patches covered after the samples were collected. Soil samples were collected from the 10 locations with the highest historical analytical results. Collected soil samples were analyzed for GRO and DRO. Five samples contained DRO (1,100 to 3,570 mg/kg) exceeding the ADEC cleanup level.

Noll Environmental personnel collected groundwater samples from five wells (GP-1 through GP-4 and GP-6) on July 5, 2000. Well GP-5 was dry and no sample was collected. The wells were sampled without prior purging with a peristaltic pump and the samples were analyzed for BTEX and chlorides. Groundwater samples collected from wells GP-1 through GP-3 were also tested for sodium.

BTEX concentrations were detected in groundwater samples collected from GP-2 and GP-6, but at concentrations below the ADEC cleanup levels. Detected concentrations of sodium (7,650 to 538,000 µg/L) and chlorides (3,720 to 1,030,000 µg/L) in the groundwater samples from GP-1 through GP-3 indicated salt water in the groundwater at the wells north of Nordic Drive.

Soil samples were also collected in July 2000 from five locations on the biopile with historically elevated analytical results (BPS-1, BPS-8, BPS-10, BPS-15 and BPS-16). Soil was collected from access patches in the mound cover. The patches were mended after samples were collected. Soil samples were collected from the biopile at a depth of 2 to 2.5 feet using a hand auger. Four samples contained DRO (1,240 to 3,340 mg/kg) exceeding the ADEC site cleanup level (1,000 mg/kg).

Based on analytical results from the 2000 sampling event, it appeared soils from the biopile were impacted with DRO concentrations ranging from 1,240 and 3,340 mg/kg. In-situ impacted soils remained in the vicinity of the loading rack. Soil sampling in this area in 1999 indicated impacted soils in an area of approximately 2000 to 3000 feet square and approximately 4 feet in depth. These impacts were not fully delineated and may have extended beneath the concrete containment pad and off-site to the north. Water collected from the six geoprobe borings (GP-1 to GP-6) did not appear to be impacted above recommended cleanup levels.

In April 2006, SECOR conducted a site investigation to further assess in-situ impacted soils near the former loading rack and the concrete containment pad and to evaluate the soil quality in the biopile. Work included soil sample collection from six test pits (TP-1 through TP-6) and 30 hand auger borings (SHA-1 through SHA-30). The test pits were excavated to a maximum depth of 8.5 feet below grade near the former loading rack and concrete pad. The hand auger borings were installed to a maximum depth of 5 feet below grade in the biopile.

SECOR compared soil analytical results from the April 2006 soil investigation to previously established clean-up levels for DRO (1,000 mg/kg for soils left on-site and 230 mg/kg for unrestricted off-site disposal). Based on a comparison to these clean-up levels, it appeared that in-situ soils were suitably delineated vertically and horizontally in all directions of the area investigated except to the north towards the office and main warehouse facility. The soil sample collected in this area from test pit TP-1 at a depth of approximately four feet contained a DRO concentration of 6,130 mg/kg. This result indicated that impacted soils likely extended to the north towards the office and main warehouse facility. Residual DRO impacts exceeding the cleanup levels were associated with soils located between one to 5 feet below grade in the biopile and indicated impacts remained throughout the biopile. Residual benzene, ethylbenzene and total xylenes impacts below ADEC cleanup levels were also detected in soil samples having residual DRO impacts.

Based on the estimate of vertical and horizontal limits of impacts by the former loading rack and concrete pad, the volume of impacted in-situ soils was approximately 600 cubic yards. An estimated 950 cubic yards were situated in the biopile for a total of approximately 1,550 cubic yards of impacts soils situated on-site.

Based on these results and historical assessment results a work plan was prepared to address soil remediation of both the biopile soils and the in-situ soils.

Results of implementation of the work plan dated August 2, 2006 are provided as follows:

SCOPE OF WORK

The following provides an overview of the scope of work implemented between August 13th to September 2nd and September 15th to September 20th, 2006:

- Treatment of biopile soils and transfer from their original location to an area to the west and immediately adjacent (the ex-situ stockpile);
- Treatment of a portion of the biopile soils in the biopile – these soils could not be transferred out of the biopile because excessive rain resulting in saturated soil precluded further soil transfer;
- Delineate soil impacts northwest of the fenced area of the former loading rack and concrete containment pad;
- Excavate to the bottom of the biopile to determine if a liner existed and collect soil samples at the liner/biopile interface to characterize soil quality;
- Collect confirmation samples of treated soils to characterize soil quality; and
- Dismantle and dispose of biopile infrastructure and treatment equipment.

FIELD ACTIVITIES

The following tasks were completed to implement the scope of work:

- Revise a project-specific Health and Safety plan and assure compliance with the plan throughout the project;
- Identify underground utilities in the vicinity of soil excavation locations in the biopile prior to excavating activities;
- Contract with DMC Tech and oversee and document soil treatment activities;
- Interact with neighboring residents;
- Conduct air monitoring at various locations in the vicinity of the soil treatment area;
- Direct excavation of five test pits to a depth below the biopile liner and collecting soil samples from the bottom of each test pit below the liner. One additional test pit was excavated to a point just above the liner – saturated soils in this area prevented excavation to the liner;
- Oversee DMC Tech's collection of soil samples in the biopile and the ex-situ stockpile;
- Collect one sample for every five of DMC Tech's samples as duplicates;
- Dismantle and dispose of pieces of the old liner, fencing, concrete blocks and chemical application equipment;

- Berm, cover and secure the biopile and ex-situ stockpile;
- Submit soil samples in iced coolers for laboratory analysis;
- Advance two hand auger borings in the vicinity of the office and main warehouse facility and collect soil samples for analysis;
- Contact the City of Petersburg Water Department to identify the presence of drinking water wells existing within a 0.5 mile radius of the site (results indicated all residences on city water in 0.5 mile radius), and;
- Summarize the results of the project in this report.

Soil Treatment by DMC Technologies, Inc.

Soil remediation efforts conducted by DMC Tech are summarized in their report dated October 23, 2006. The report is provided in Attachment B. Details of the soil remediation activities are provided as follows.

The soil treatment approach involved progressive application of a microbe and nutrient-rich solution to three-foot lifts of soil in the biopile. The solution was mixed into the biopile soils using an excavator bucket. Once treatment of each lift was deemed sufficient, the treated soils were transferred to a location directly west and adjacent to the biopile. This stockpile of treated soils was labeled 'ex-situ stockpile'. The relative locations of the biopile and ex-situ stockpile are shown on Figure 4.

DMC Tech and SECOR mobilized to the site on August 14, 2006. DMC Tech's treatment solution was prepared and stored in a 500 gallon above ground plastic tank temporarily situated on the gravel lot west of the biopile. The tank was used to mix microbes and nutrients with water. The water was heated to approximately 80 degrees Fahrenheit to promote culturing of the microbe blend. Power requirements were met with a portable generator. Operation of the generator was required for 24 hours per day over several days during the treatment period. A nearby resident, Mr. Mark McCullum expressed concern over noise levels and subsequently requested on-going site activity updates. SECOR complied with Mr. McCullum's request and he appeared satisfied that his concerns were addressed.

Preparation of the first batch of solution required approximately one week. This preparation period was longer than the typically required period of two or three days because of equipment sourcing issues and equipment malfunction. Additionally, the first tankful of water was air-sparged to dechlorinate the water prior to adding the nutrient and microbe blend. On August 22, 2006, the solution was deemed acceptable for application and mixing into the biopile soils. Approximately 250 gallons of the solution were applied and mixed into the top three feet of the biopile (the first lift). These treated soils were then transferred to an area immediately west and adjacent of the biopile. These treated soils were identified as the ex-situ stockpile. Subsequent treatments progressing through the biopile in three foot lifts involved the following volumes of treatment solution on the dates indicated:

- 250 gallons on August 28th, 2006;
- 500 gallons on August 29th, 2006; and
- 30 gallons of chemical pentatonic mixed with 420 gallons of water on August 30th, 2006.

The final application consisting of a chemical pentatonic mixture was applied to accelerate the breakdown of hydrocarbon bonds in the diesel molecules and therefore enhance microbial activity in the soil matrix.

Particularly heavy precipitation was experienced during the final weeks of the soil treatment period in September 2006. As a result, biopile soils became more saturated with time. Soil saturation made it increasingly difficult to operate the excavator in the biopile and very difficult to dig the soils out of the biopile into the ex-situ stockpile. In the interest of safety it was decided to treat the final 430 cubic yards of soil in the biopile as opposed to attempting to transfer these saturated soils into the ex-situ stockpile. Based on the assumption that the biopile originally contained 950 cubic yards the size of the ex-situ stockpile was estimated at 520 cubic yards.

Soil treatment activities were completed on September 2nd, 2006. The soils in the biopile and in the ex-situ stockpile were left undisturbed until September 15th, 2006 when SECOR and DMC Tech returned to the site to complete follow-up soil sampling of the treated soils and soils situated beneath the biopile and beneath the ex-situ stockpile.

Confirmation Sampling

Confirmation soil samples were collected from the soils in the treated biopile and the ex-situ stockpile. The biopile and ex-situ stockpile are shown on Figure 2. Soil sampling was conducted by DMC Tech with SECOR collecting duplicate soil samples. SECOR collected one soil sample for every five of DMC Tech's samples.

Soil Sampling – Treated Biopile

Soil samples were collected on September 18th, 2006 from various depths in test pits advanced in the treated biopile. A total of nine test pits were advanced in the locations shown on Figure 4. Three test pits (In-Situ-1, In-Situ-2 and In-Situ-3) were advanced through the center of the treated biopile. The purpose of collecting soil samples from the In-Situ series of test pits was to characterize the treated soils in the biopile above the liner. Six test pits (BL-TP-1, BL-TP-2, BP-TP-3, BL-TP-4, BL-TP-5 and BL-TP-6) were advanced along the east and west sides of the biopile in a north-south direction. The BL pre-fix indicates test pits advanced to a depth below the liner and the BP pre-fix indicates test pits advanced below the pile – but not to a depth below the liner. The liner was situated at an approximate depth of 8.5 feet.

DMC Tech personnel collected three soil samples from each of the three In-Situ series of test pits (In-Situ-1, In-Situ-2 and In-Situ-3) advanced through the center of the treated biopile. A total of nine samples were collected from depths of 2 feet, 5 feet and 8 feet. SECOR personnel collected a total of two duplicate samples from the three test pits at depths of 5 feet (from test pit In-Situ-2) and from a depth of 8 feet (from test pit In-Situ-3). SECOR personnel collected one soil sample from each of the BP/BL series of test pits. DMC Tech did not collect any soil samples from the BP/BL series of test pits.

Soils encountered during test pitting in the treated biopile generally consisted of reddish brown to black peaty silts with clay and fine to cobble sized angular gravels. Field staff noted that soils possessed a moderate to strong odor.

After confirmation and duplicate sampling (described in the next section) was completed, the biopile and ex-situ stockpile were bermed and covered with tarps. The metal fencing, concrete blocks and microbe cultivating equipment were removed from the site. Orange snow fencing was installed on the south and east sides of the site and signs with contact information were posted on the fencing.

Soil Sampling – Ex-Situ Stockpile

Soil sampling was conducted in the ex-situ stockpile on September 19th, 2006. The ex-situ stockpile contained approximately 520 cubic yards of the soil transferred from the Treated Biopile.

DMC Tech advanced a total of three test pits (Pile 1, Pile 2 and Pile 3). DMC Tech collected three soil samples from each test pit for a total of nine samples from the test pits. The samples were collected

from within the test pits at locations identified as Top (approximately 1 foot below surface), Middle (approximately 3 feet below the surface) and Bottom (approximately 5 to 7 feet below surface of pile). DMC Tech collected an additional two discrete soil samples - one each from locations at the north end of the stockpile (sample I.D.: Base Wall) and the south end of the stockpile (sample I.D.: Base Road). SECOR collected duplicate soil samples from the following three DMC Tech locations: Pile 2 Middle (SECOR sample I.D.: TSP-3), Pile 3 Bottom (SECOR sample I.D.: TSP-4), and the Base Road location (SECOR sample I.D.: TSP-5). Summaries of soil sampling activities including site plans and tabulated analytical results are provided in this report and DMC Tech's report provided in Attachment B.

Soil Sampling – Hand Augering

Two hand auger borings were advanced by SECOR personnel to further characterize soil quality in the vicinity of the office and main warehouse facility. Boring HB-A was located southwest of the office and northwest of the fenced oil/water separator and concrete pad. Boring HB-B was located south of the office and north of the fenced oil/water separator. Soil samples (HB-A-4 and HB-B-3) were collected at the bottom of each hand augered boring. Soils encountered generally consisted of shale and large cobbles to 3 feet below grade and brown medium sized sands to the maximum depth of 4 feet below grade. Water was encountered at 4 feet below grade in HB-A.

Soil samples were immediately placed in an iced cooler with chain-of-custody documentation and shipped to TestAmerica, Inc. (formerly North Creek Analytical, Inc.) in Anchorage, Alaska for analysis. Boring locations are shown on Figure 3.

Soil Sampling Methodology and Analytical Selection

Soil samples collected by SECOR were field screened for organic vapors using a photo ionization detector (PID). A portion of the recovered soil was placed into a re-sealable plastic bag and vapors were allowed to equilibrate in the bag for approximately 10 minutes. Volatile organic compounds (VOCs) were then measured using the PID calibrated to 100 parts per million (ppm) isobutylene. Soil samples were shipped for analysis.

Chemical analysis for selected soil samples consisted of the following:

- Diesel Range Organics (DRO) in the C10 to C25 range by Alaska Method AK 102 with silica gel cleanup;
- Residual Range Organics (RRO) in the C25 to C36 range by Alaska Method 103;
- Total Organic Carbon (TOC) by EPA Method 9060M;
- Gasoline Range Organics (GRO) in the C6 to C10 range;
- Benzene, toluene, ethylbenzene and xylenes (BTEX) by Alaska Method AK 101; and,
- Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270.

DMC Tech's soil sampling methodology and analytical selection is described in their report included in Attachment B.

SOIL ANALYTICAL RESULTS

Analytical results associated with SECOR's sampling efforts are detailed in Tables 1 through 3 and analytical laboratory reports are included in Attachment A. Analytical results associated with DMC Tech's sampling efforts are summarized in their report in Attachment B.

The following summarizes analytical results of soil samples collected from the treated biopile, ex-situ stockpile and hand auger locations.

Analytical Results - Soil Sampling During Hand Augering

Diesel range organics and RRO were detected at concentrations of 125 mg/kg and 51 mg/kg, respectively, in soil sample HB-B-3. DRO and RRO were not indicated above detection limits in soil sample HB-A-4.

These results indicate soil quality has been sufficiently delineated in the vicinity of the office and main warehouse facility.

Analytical Results – Treated Biopile

Soil samples collected by DMC Tech and SECOR (as duplicates) from various depths in test pits advanced in the treated biopile contained the following range of constituents:

- DRO concentrations ranged from 360 mg/kg to 3,580 mg/kg;
- RRO concentrations ranged from 504 mg/kg to 2,310 mg/kg;
- GRO concentrations ranged from 22.10 mg/kg to 86.80 mg/kg;
- BTEX constituents did not exceed 6 mg/kg;
- Carcinogenic PAH constituents were not present above detection limits, and;
- TOC constituents ranged from 77,100 mg/kg to 213,000 mg/kg (7.7% to 21.3 %).

Soil samples collected at the liner interface contained DRO concentrations ranging from 360 mg/kg to 1960 mg/kg with other constituent concentrations similar to those reported in the test pits. These results indicate that soils situated at the liner interface contained DRO concentrations similar to what was indicated in the treated biopile. The elevated TOC concentrations suggest biogenic interference in the analytical results for soil samples collected throughout the treated biopile. DRO concentrations are likely elevated due to organic carbon interfering or retarding the movement or breakdown of the DRO in the soil.

Analytical Results – Ex-Situ Stockpile

Soil samples collected by DMC Tech and SECOR (as duplicates) from various locations in the ex-situ stockpile contained constituents in the following range:

- DRO concentrations ranged from 401 mg/kg to 1,420 mg/kg;
- RRO concentrations ranged from 427 mg/kg to 1,130 mg/kg;
- GRO concentrations ranged from 8.82 mg/kg to 33.90 mg/kg;
- BTEX constituents did not exceed 2 mg/kg;
- Carcinogenic PAH constituents were not present above detection limits, and;
- TOC constituents ranged from 11,500 mg/kg to 146,000 mg/kg (1.15% to 14.6 %).

These results indicate that overall constituent concentrations lower than concentrations reported in the treated biopile. The corresponding lower recorded TOC concentrations may have influenced the DRO results through biogenic interference.

Data Validation and Verification

SECOR conducted data validation as specified by ADEC of the results of analyses completed on samples collected by SECOR. ADEC's requirements for data verification as cited in Technical Memo 06-002 dated 10/09/2006 were followed.

The following two deficiencies in the lab reports were identified as a result of the data review:

- A full case narrative was not provided, and;
- Field duplicates of SECOR-collected samples were not collected.

SECOR discussed the issue of the case narrative with a laboratory representative and it indicated that the case narrative was essentially covered by the notes page. A review of the notes page confirmed the laboratory response. Regarding the field duplicates, SECOR collected one field duplicate soil sample for every five soil samples collected by DMC Tech. This is twice what is required by ADEC (one in ten) and essentially meets ADEC's field duplication requirements.

SECOR completed ADEC's laboratory review checklist and noted several instances where the relative percent differences reported were greater than the acceptable limit set by ADEC. The laboratory report provided data flags in these instances and provided an explanation indicating that data quality and usability were not affected. The ADEC data review documents are included in Attachment D.

DISCUSSION OF RESULTS

Results of the TOC analysis (averaging approximately 10%) indicated that soils contained in the biopile and ex-situ stockpile contained elevated concentrations of naturally occurring organics in the form of peat. DMC Tech indicated in their attached report that the presence of naturally-occurring organics limited the effectiveness of treatment to between 440 and 600 mg/kg DRO. The presence of elevated concentrations of naturally-occurring organics warranted the application of ADEC's Method III calculator to determine site-specific clean-up limits for the site.

The Method III approach was described in the ADEC document titled '*Guidance For Cleanup of Petroleum Contaminated Sites' – September 2000*. The Method III soil clean-up levels can be calculated for each site using site specific information. The calculated clean-up levels were termed alternative cleanup levels (ACLs). One of the options for determining site specific ACLs under Method III allowed modification of specific default parameters used in the modeling to determine clean-up levels. For this site, modification of the default parameter specifying fraction of organic carbon was appropriate.

ADEC provided a web-based spreadsheet on which ACLs can be calculated by manipulating input parameters. DMC Tech employed ADEC's spreadsheet to determine site-specific ACLs. Based on an input parameter of 0.102 g/g for fraction of organic carbon a DRO ACL of 8,300 was derived. An ACL of 0.317 mg/kg was derived for benzene given the same input parameters. DMC Tech's results were summarized in their report. SECOR verified DMC Tech's results by applying the same parameters to the web-based spreadsheet. Based on the calculated ACLs all soils in the ex-situ stockpile, biopile and beneath the biopile were suitable for on site disposal with no restrictions.

Field observations indicated that soil at the liner interface contained a petroleum-like odor. Analytical results did not confirm the presence of elevated contaminant impacts in the soils. The odor associated with the soils may be attributed to gas trapped in the interstitial soil space from historical degradation of organic (petroleum based and naturally occurring). This gas may be released once disturbed during excavation. Regardless of the source of these odors, removal of the soils at the interface is recommended to prevent future odor issues should soil disturbance be required during site redevelopment.

Although the soil treatment proved effective when applied to the biopile soils this approach for remediating impacted soils may not be the most appropriate when addressing the in-situ impacted soils situated by the former loading rack and concrete pad for the following reasons:

- Soils in this area would need to be transported to the treatment area – unlike the biopile soils which were simply cast into the ex-situ stockpile using an excavator;

- The volume of in-situ impacted soils is estimated at 600 cubic yards – the actual volume may be greater and the size of the treatment area may be too small to treat a greater volume.

For these reasons it may be more prudent to remediate the remaining in-situ impacted soils by excavation and off-site disposal.

SECOR discussed these results with Mr. Bill Janes of ADEC. Mr. Janes suggested that all soils (a total of 1,550 cubic yards consisting of in-situ impacted soils by the loading rack, biopile and ex-situ stockpile soils) meet the cleanup requirement for residential soil and could therefore be left in place. Mr. Janes indicated that should these soils be left in place, ADEC would require an attachment to the property deed indicating that DRO-impacted soil cannot be removed from the property without proper screening and ADEC permission. Mr. Janes further indicated that if the in-situ soils at the former loading rack and soils at the liner are removed and disposed of off-site then a deed attachment would not be required. ADEC would however provide a notice to their file indicating that soils were left in place and require no further action based on the application of the calculated ACLs.

Subsequent to discussions with ADEC, SECOR discussed results with Mr. Bob Cox of Petro Marine Inc. (the site owner). Mr. Cox indicated that he would prefer that there be no attachments to the property deed referencing the DRO-impacted soils and he requested that the in-situ soils at the former loading rack and soils at the liner be removed for off-site disposal.

CONCLUSIONS

Soil treatment efforts were limited by the presence of naturally-occurring organics. The treatment sub-contractor (DMC Tech) estimated that the presence of naturally-occurring organics limited the effectiveness of treatment to a range of 440 and 600 mg/kg for DRO. Application of ADEC's Method III approach yielded an alternative clean-up level of 8,300 mg/kg for DRO. Given this ACL, all soils in the ex-situ stockpile, biopile and beneath the biopile were suitable for on-site disposal with no restrictions.

Based on the understanding that the principal goal of the remedial action is to allow future site use free of encumbrances, further remedial action is recommended. The in-situ soils at the former loading rack and soils at the liner interface should be removed and disposed of off-site.

Katlin Hanson
Project Geologist

Marc Sauze, PE
Senior Project Engineer

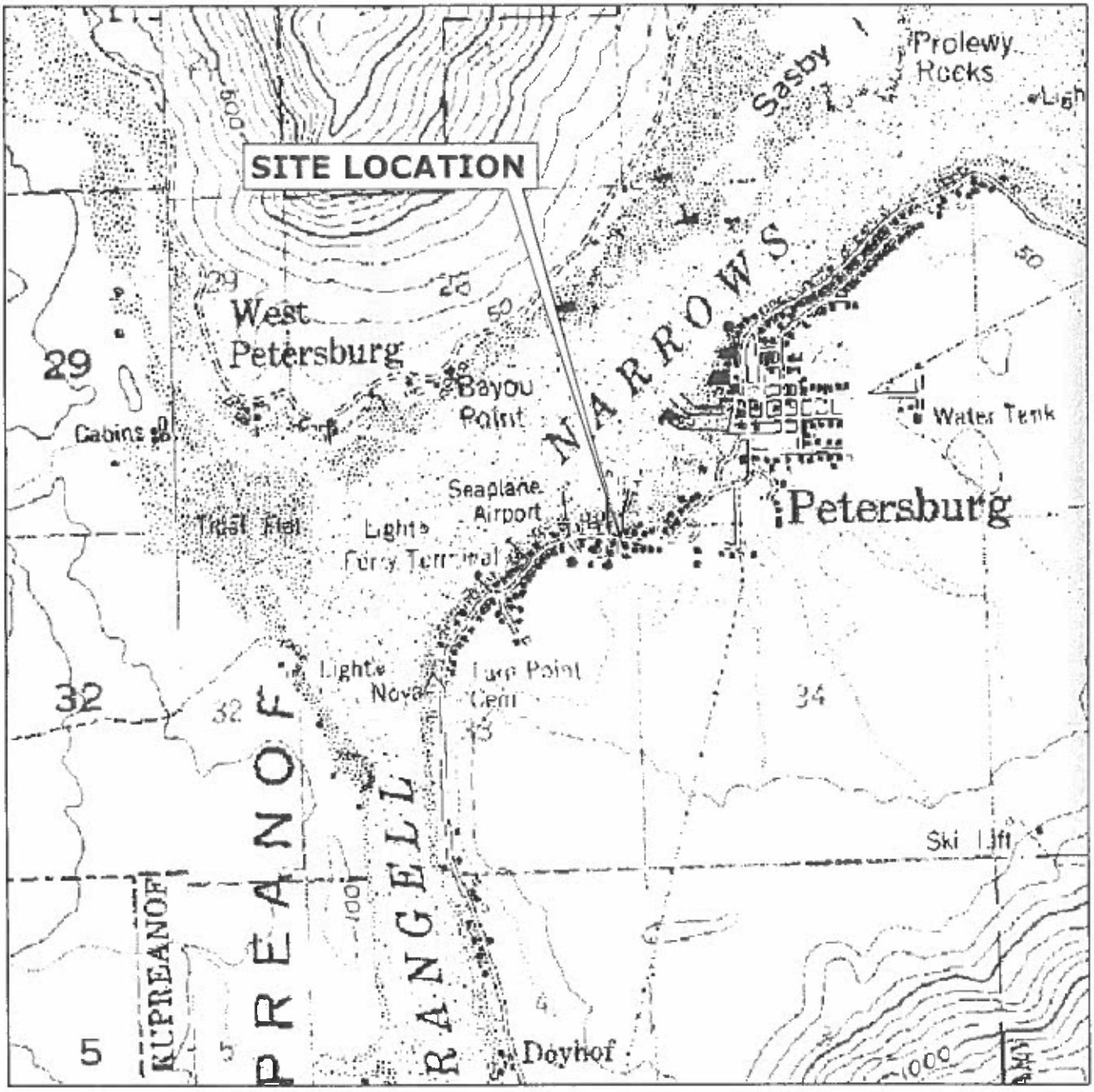
cc: Mr. Bill Janes, Alaska Department of Environmental Conservation, Juneau, Alaska
Mr. Bob Cox, Petro Marine, Anchorage, Alaska

LIST OF FIGURES

LIST OF TABLES

LIST OF ATTACHMENTS

FIGURES



1 1/2 0 1

SCALE (MILES)

1000 0 1000 2000 3000 4000 5000 6000 7000

SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE; PETERSBURG D-3 SW, ALASKA; 1992

SECOR
12034 134TH COURT NE, SUITE 102
REDMOND, WASHINGTON
PHONE: (425) 372-1600/372-1650 (FAX)

FOR: ConocoPhillips
CONOCOPHILLIPS 0923
FORMER UNOCAL BULK PLANT NO. 0581
703 SOUTH NORDIC DRIVE
PETERSBURG, ALASKA

SITE LOCATION MAP

FIGURE: **1**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
01CP.00923.05	CSENNETT			10/24/06

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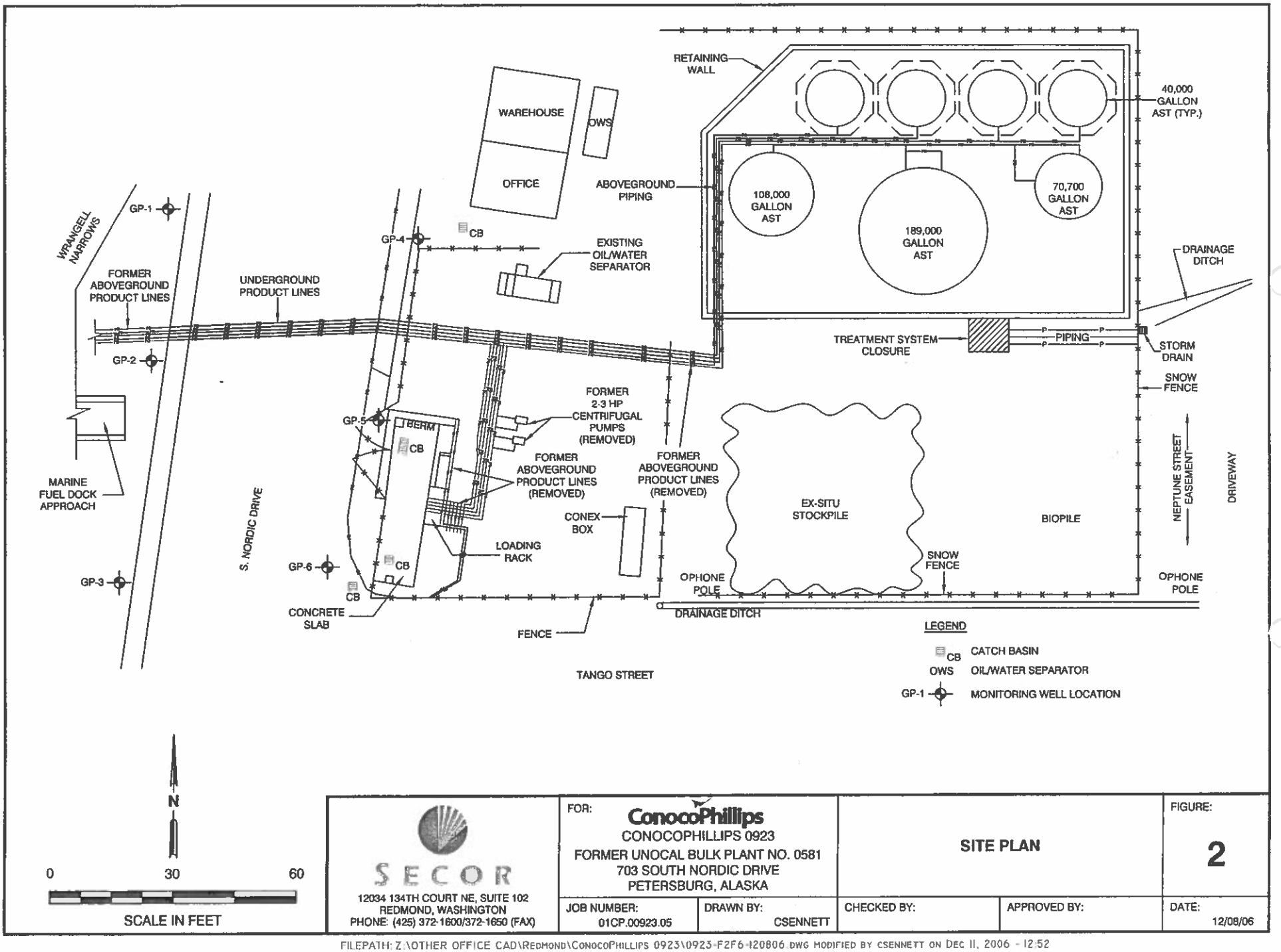


SECOR
12034 134TH COURT NE, SUITE 102
REDMOND, WASHINGTON
PHONE: (425) 372-1600/372-1650 (FAX)

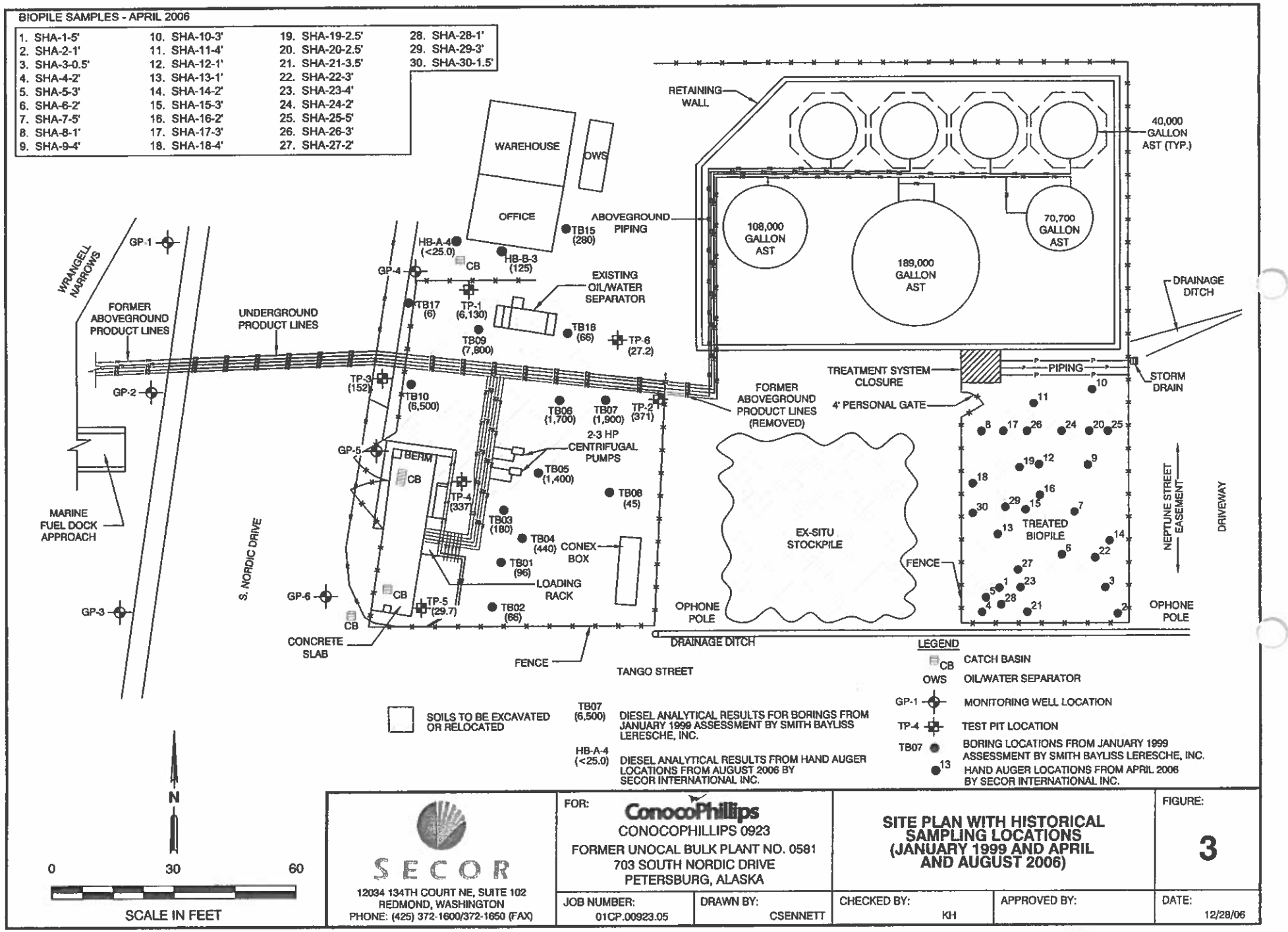
FOR: ConocoPhillips
CONOCOPHILLIPS 0923
FORMER UNOCAL BULK PLANT NO. 0581
703 SOUTH NORDIC DRIVE
PETERSBURG, ALASKA

SITE PLAN

FIGURE: **2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
01CP.00923.05	CSENNETT			12/08/06

FILEPATH: Z:\OTHER OFFICE CAD\REDMOND\CONOCOPHILLIPS 0923\0923-F2F6-120806.DWG MODIFIED BY CSENNETT ON DEC 11, 2006 - 12:52



SECOR
12034 134TH COURT NE, SUITE 102
REDMOND, WASHINGTON
PHONE: (425) 372-1600/372-1650 (FAX)

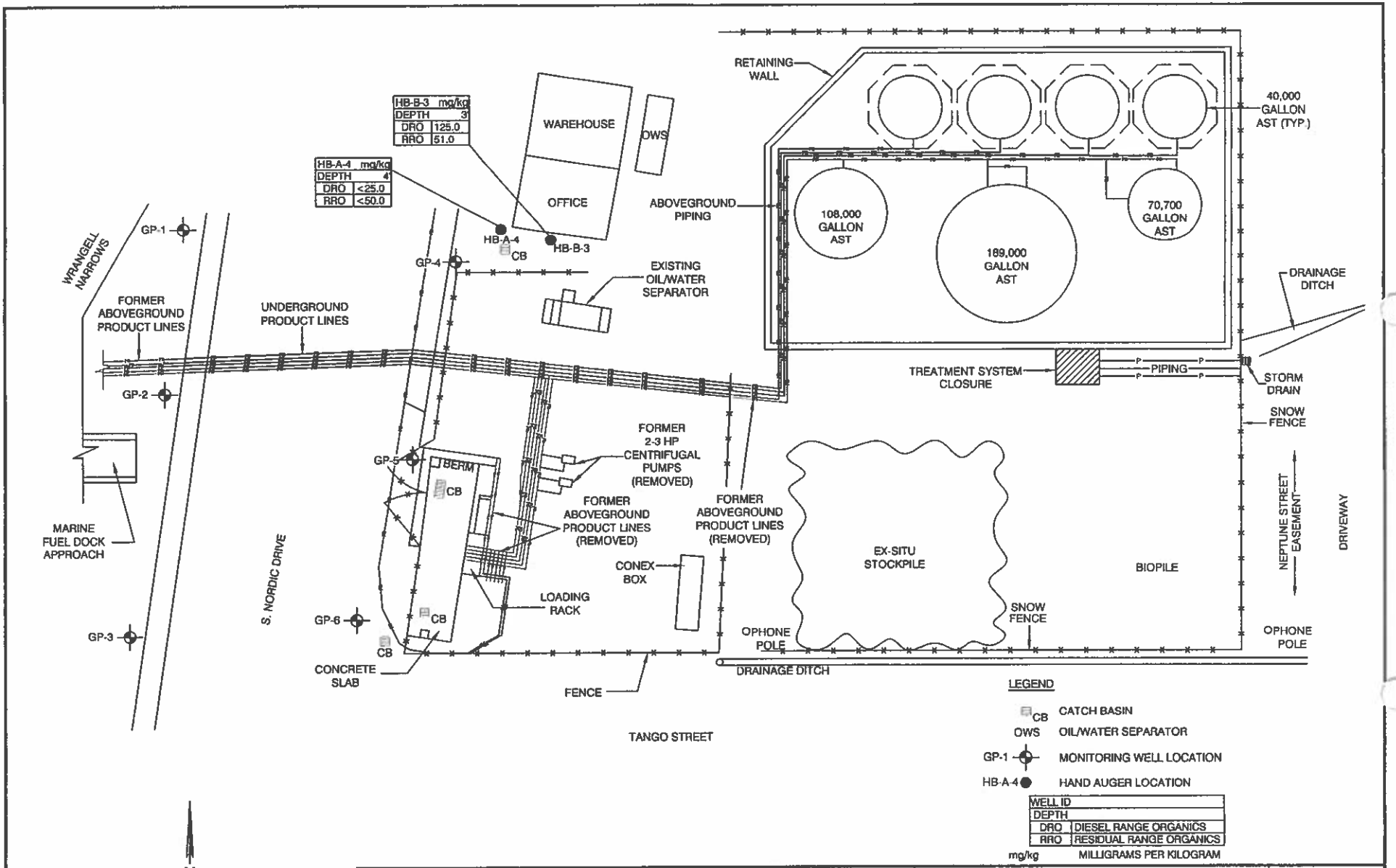
FOR: ConocoPhillips
CONOCOPHILLIPS 0923
FORMER UNOCAL BULK PLANT NO. 0581
703 SOUTH NORDIC DRIVE
PETERSBURG, ALASKA

SITE PLAN WITH HISTORICAL SAMPLING LOCATIONS (JANUARY 1999 AND APRIL AND AUGUST 2006)

FIGURE: **3**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
01CP.00923.05	CSENNETT	KH		12/28/06

FILEPATH: Q:\CADD-26\OTHER OFFICE CAD\REDMOND\CONOCOPHILLIPS 0923\0923-F3-120806.DWG MODIFIED BY CSENNETT ON MAR 05, 2007 - 17:22



SECOR
12034 134TH COURT NE, SUITE 102
REDMOND, WASHINGTON
PHONE: (425) 372-1600/372-1650 (FAX)

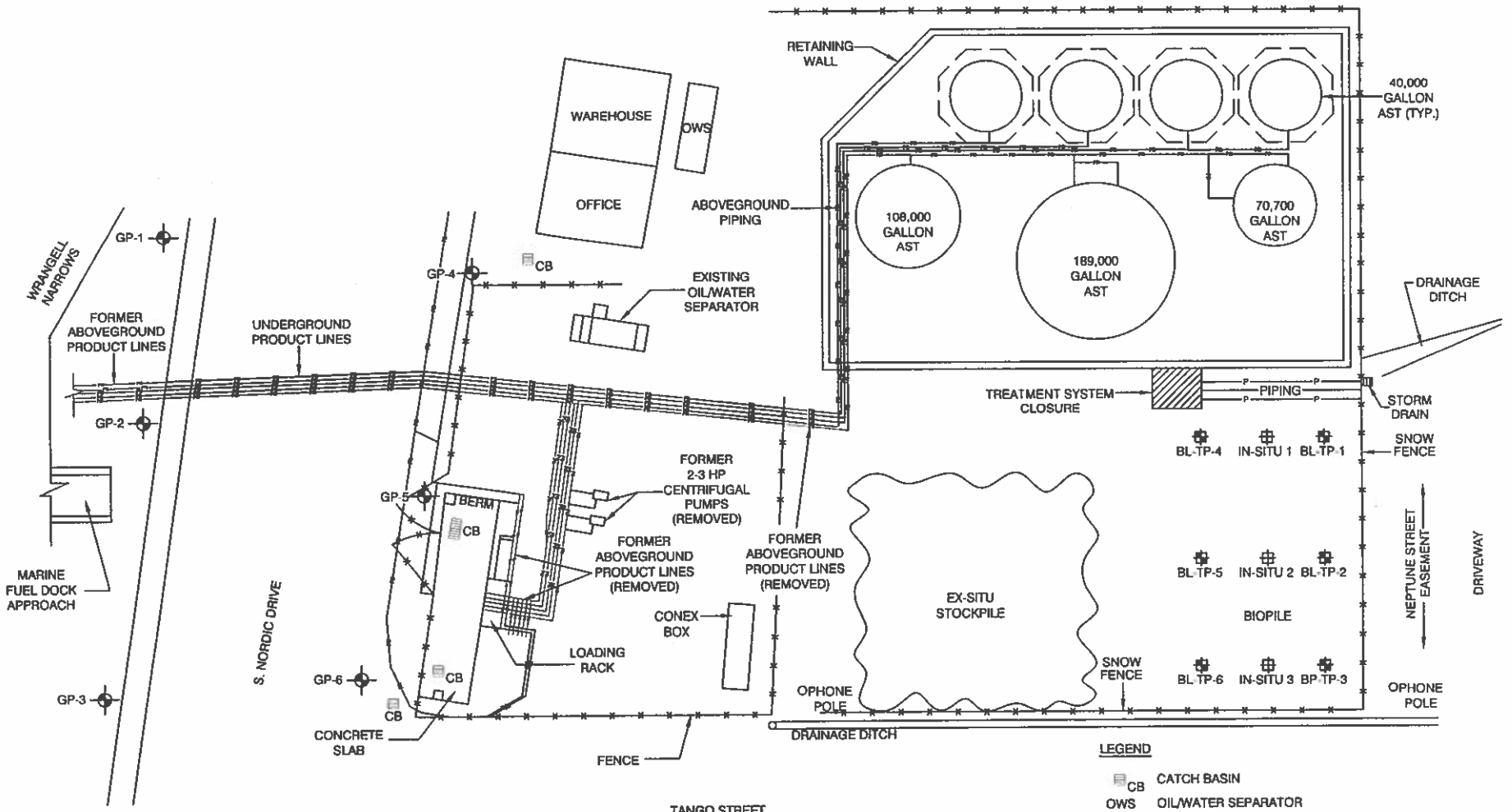
FOR: ConocoPhillips
CONOCOPHILLIPS 0923
FORMER UNOCAL BULK PLANT NO. 0581
703 SOUTH NORDIC DRIVE
PETERSBURG, ALASKA

SITE PLAN WITH HAND AUGER BORING LOCATIONS (8/30/06)

FIGURE: **4**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
01CP.00923.05	CSENNETT			12/08/06

FILEPATH: Z:\OTHER OFFICE CAD\REDMOND\CONOCOPHILLIPS 0923\0923-F2F6-I20806.DWG MODIFIED BY CSENNETT ON DEC 11, 2006 - 12:51



IN-SITU 1 TEST PIT SAMPLES:
IN-SITU 1 - 2 FT
IN-SITU 1 - 5 FT
IN-SITU 1 - 8 FT

IN-SITU 2 TEST PIT SAMPLES (DUPLICATE SAMPLE):
IN-SITU 2 - 2 FT
IN-SITU 2 - 5 FT (TSP-1)
IN-SITU 2 - 8 FT

IN-SITU 3 TEST PIT SAMPLES (DUPLICATE SAMPLE):
IN-SITU 3 - 2 FT
IN-SITU 3 - 5 FT
IN-SITU 3 - 8 FT (TSP-2)

SECOR
12034 134TH COURT NE, SUITE 102
REDMOND, WASHINGTON
PHONE: (425) 372-1600/372-1650 (FAX)

FOR: ConocoPhillips
CONOCOPHILLIPS 0923
FORMER UNOCAL BULK PLANT NO. 0581
703 SOUTH NORDIC DRIVE
PETERSBURG, ALASKA

SITE PLAN WITH SOIL SAMPLE LOCATIONS ON BIOPILE (SEPTEMBER 18 - 19/ 2006)

FIGURE: 5

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
01CP.00923.05	CSENNETT			12/08/06

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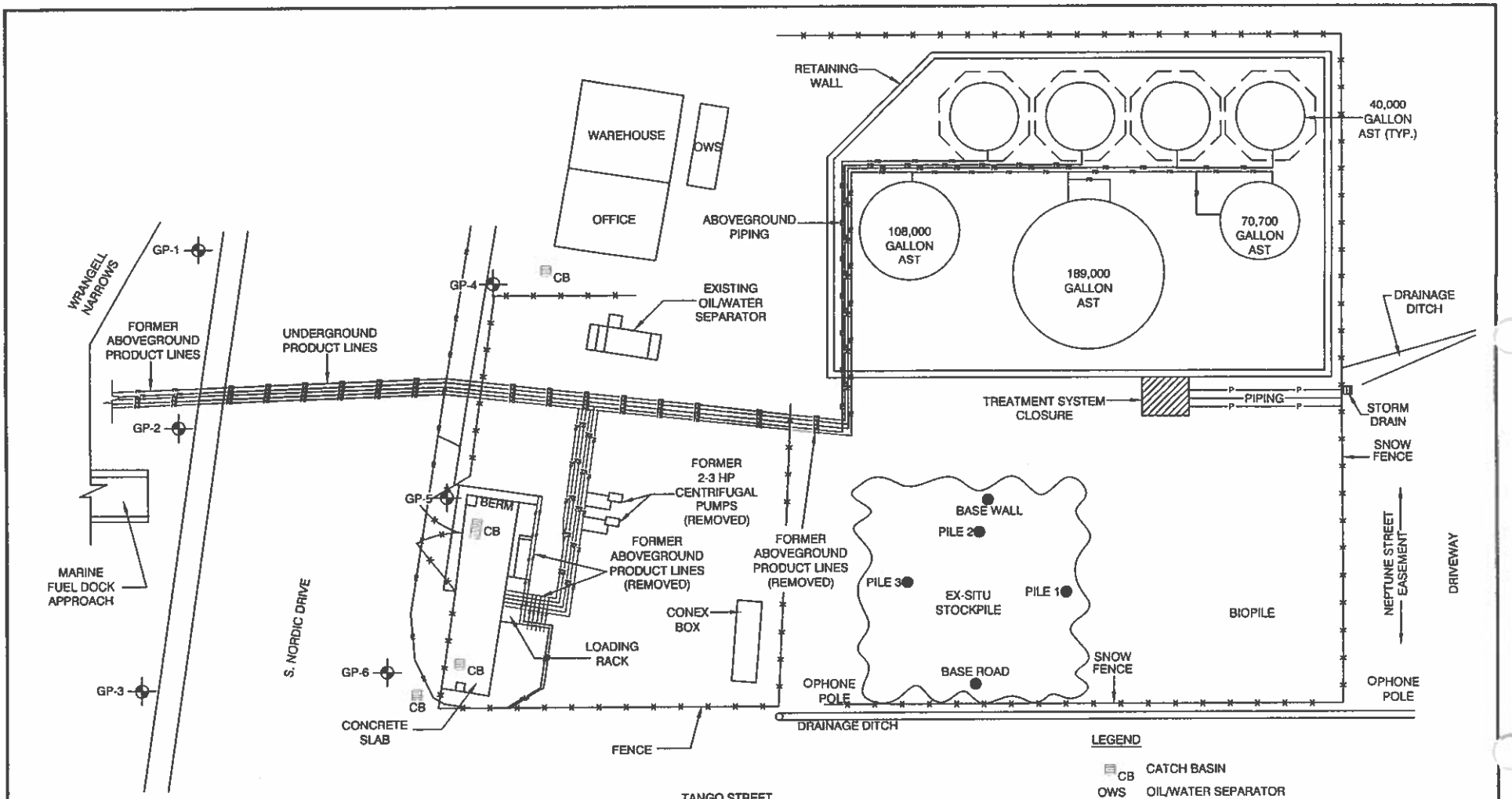

PILE 1 SAMPLES:
PILE 1 TOP
PILE 1 MIDDLE
PILE 1 BOTTOM

PILE 2 SAMPLES (DUPLICATE SAMPLE):
PILE 2 TOP
PILE 2 MIDDLE (TSP-3)
PILE 2 BOTTOM

PILE 3 SAMPLES:
PILE 3 TOP
PILE 3 MIDDLE
PILE 3 BOTTOM

SECOR
12034 134TH COURT NE, SUITE 102
REDMOND, WASHINGTON
PHONE: (425) 372-1600/372-1650 (FAX)

FOR: ConocoPhillips
CONOCOPHILLIPS 0923
FORMER UNOCAL BULK PLANT NO. 0581
703 SOUTH NORDIC DRIVE
PETERSBURG, ALASKA

SITE PLAN WITH SOIL SAMPLE LOCATIONS ON EX-SITU STOCKPILE (9/19/2006)

FIGURE: 6

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
01CP.00923.05	CSENNETT			12/08/06

FILEPATH: Z:\OTHER OFFICE CAD\REDMOND\CONOCOPHILLIPS 0923\0923-F2F6-120806.DWG MODIFIED BY CSENNETT ON DEC 11, 2006 - 12:51

TABLES

TABLE 1
APRIL 2006 SOIL ANALYTICAL RESULTS
ConocoPhillips Site No. 0923
703 South Nordic Drive
Petersburg, Alaska

			Total Petroleum Hydrocarbons			Volatile Organic Compounds			
Sample Identification	Sample Date	Sample Depth (feet bgs)	Gasoline-Range (mg/kg)	Diesel-Range with Silica Gel Cleanup (mg/kg)	Diesel-Range w/o Silica Gel Cleanup (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)
TP-1	4/25/06	4	11.00	6130	--	0.0519	<0.0842	0.118	0.279
TP-1	4/25/06	7.5	<3.33	<25.0	<25.0	<0.0133	<0.0333	<0.0333	<0.0500
TP-2	4/25/06	4	<4.98	371	--	<0.0199	0.127	<0.0498	<0.0746
TP-2	4/25/06	8	<4.12	<25.0	<25.0	<0.0165	<0.0412	<0.0412	<0.0618
TP-2	4/25/06	9	<4.42	114	--	<0.0177	<0.0442	<0.0442	<0.0664
TP-3	4/25/06	4	14.5	152	--	<0.0174	<0.0435	0.0672	0.243
TP-3	4/25/06	8.5	<3.33	<25.0	<25.0	<0.0133	<0.0333	<0.0333	<0.0500
TP-4	4/25/06	4	7.81	337	--	<0.0133	<0.0333	<0.0333	0.209
TP-4	4/25/06	6	<3.33	31.4	33.6	<0.0133	<0.0333	<0.0333	<0.0500
TP-4	4/25/06	7	<3.33	<22.2	<22.2	0.0148	<0.0333	<0.0333	0.0762
TP-5	4/25/06	4	<3.33	29.7	34.1	0.0418	<0.0333	<0.0333	0.0717
TP-5	4/25/06	7.5	<3.33	<25.0	--	<0.0133	<0.0333	<0.0333	<0.0500
TP-6	4/25/06	4	<3.81	<25.0	--	<0.0152	<0.0381	<0.0381	<0.0572
TP-6	4/25/06	7.5	<3.33	27.2	38.1	<0.0133	<0.0333	<0.0333	<0.0500
SHA-1	4/26/06	5	4.40	396	437	<0.0132	<0.0330	0.109	0.333
SHA-2	4/26/06	1	<7.52	415	--	<0.0301	<0.0752	<0.0752	<0.113
SHA-3	4/26/06	0.5	<3.46	69.2	--	<0.0139	<0.0346	<0.0346	<0.0520
SHA-4	4/26/06	2	<7.10	611	664	<0.0284	<0.0710	<0.0710	<0.106
SHA-5	4/26/06	3	<7.22	544	--	<0.0289	<0.0722	<0.0722	<0.108
SHA-6	4/26/06	2	<3.26	240	--	<0.0131	<0.0326	<0.0326	<0.0490
SHA-7	4/26/06	5	25.6	1,210	1,280	0.0348	<0.0623	0.467	2.21
SHA-8	4/26/06	1	<8.54	290	--	<0.0341	<0.0854	<0.0854	<0.128
SHA-9	4/26/06	4	10.1	598	642	0.0200	<0.0358	0.513	1.31
SHA-10	4/26/06	3	<12.0	1,460	--	<0.0479	<0.120	0.155	0.729
SHA-11	4/26/06	4	<9.87	1,830	--	<0.0395	<0.0987	0.130	0.831
SHA-12	4/26/06	1	<3.71	175	--	<0.0148	<0.0371	<0.0371	<0.0556
SHA-13	4/26/06	1	<3.62	259	--	<0.0145	<0.0362	<0.0362	<0.0543
SHA-14	4/26/06	2	<10.0	954	--	<0.0400	<0.100	<0.100	0.283
SHA-15	4/27/06	3	<8.43	1,830	--	<0.0337	<0.0843	0.115	0.408
SHA-16	4/27/06	2	<3.27	98.2	--	<0.0131	<0.0327	<0.0327	<0.0490
SHA-17	4/27/06	3	<8.39	421	473	<0.0336	<0.0839	<0.0839	<0.126
SHA-18	4/27/06	4	<3.18	326	--	<0.0127	<0.0318	<0.0318	<0.0477
SHA-19	4/27/06	2.5	<7.64	883	--	<0.0306	<0.0764	<0.0764	<0.115
SHA-20	4/27/06	2.5	<8.27	1230	1400	<0.0331	<0.0827	<0.0827	0.426
SHA-21	4/27/06	3.5	<3.55	345	--	<0.0142	<0.0355	0.0363	0.0645
SHA-22	4/27/06	3	<26.4	1250	--	<0.105	<0.264	0.912	2.82
SHA-23	4/27/06	4	43.1	1220	--	<0.0759	<0.190	1.31	2.82
SHA-24	4/27/06	2	<7.13	695	751	<0.0285	<0.0713	<0.0713	<0.107
SHA-25	4/27/06	5	32.1	1710	1800	<0.0653	<0.163	0.428	2.92
SHA-26	4/27/06	3	<3.38	83.9	--	<0.0135	<0.0338	<0.0338	<0.0506
SHA-27	4/27/06	2	<2.96	192	--	<0.0118	<0.0296	<0.0296	<0.0443
SHA-28	4/27/06	1	<2.90	55.3	--	<0.0116	<0.0290	<0.0290	<0.0436
SHA-29	4/27/06	3	<3.47	305	--	<0.0139	<0.0347	<0.0347	<0.0520
SHA-30	4/27/06	1.5	<4.43	172	--	<0.0177	<0.0443	<0.0443	<0.0665
Trip blank	4/25/06	--	<3.33	--	--	<0.0133	<0.0333	<0.0333	<0.0500
ADEC Cleanup Levels			100	1,000	1,000	Total BTEX = 15 mg/kg			

Notes:
BOLD = Concentration above ADEC Cleanup Level
-- = Not analyzed, not applicable, or not sampled
All concentrations in milligrams per kilogram (mg/kg)
ADEC = Alaska Department of Environmental Conservation
bgs = below ground surface
Total Petroleum Hydrocarbons as gasoline range hydrocarbons by AK 101
Total Petroleum Hydrocarbons as diesel and oil range hydrocarbons by AK 102 and with Silica Gel Acid Cleanup
Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B

TABLE 2
SOIL ANALYTICAL RESULTS- HAND AUGER BORINGS
ConocoPhillips Site No. 0923
703 South Nordic Drive
Petersburg, Alaska

				Total Petroleum Hydrocarbons	
Sample Identification	Sample Date	Sample Depth (feet bgs)	Sample Location	Diesel Range Organics (C10-C25) (mg/kg)	Residual Range Organics (C25-C36) (mg/kg)
HB-A-4	8/30/06	4	Near southwest corner of office building	<25.0	<50.0
HB-B-3	8/30/06	3	South of office building	125.0	51.0

Notes:
All concentrations in milligrams per kilogram (mg/kg)
bgs = below ground surface
-- = not available
Diesel range organics (C10-C25) and Residual Range Organics (C25-C36) by AK 102/RRO

TABLE 3
SOIL ANALYTICAL RESULTS - CONFIRMATION SOIL SAMPLING
ConocoPhillips Site No. 0923
703 South Nordic Drive
Petersburg, Alaska

				Total Petroleum Hydrocarbons		Volatile Organic Compounds				
Sample Identification	Sample Date	Sample Depth (feet bgs)	Sample Location	Gasoline Range Organics (C6-C10) (mg/kg)	Diesel-Range with Silica Gel Cleanup (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total Organic Carbon (mg/kg)
BL-TP-1	9/18/06	9	Soil sample from northeast corner of the biopile	--	1930	--	--	--	--	191,000
BL-TP-2	9/18/06	9	Soil sample from the middle of the east side of the biopile	39.1	1630	<0.0504	<0.126	0.759	3.05	298,000
BP-TP-3	9/18/06	6	Soil sample from the southeast corner of the biopile	--	1280	--	--	--	--	81,900
BL-TP-4	9/18/06	9	Soil sample from the northwest corner of the biopile	--	877	--	--	--	--	162,000
BL-TP-5	9/18/06	9	Soil sample from the middle of the west side of the biopile	20.8	1660	0.0536	<0.0650	0.348	2.18	88,500
BL-TP-6	9/18/06	9.5	Soil sample from the southwest corner of the biopile	--	360	--	--	--	--	360,000
TSP-1	9/19/06	5	Duplicate soil sample from In - Situ 2-5 ft. from middle of biopile	--	1880	--	--	--	--	--
TSP-2	9/19/06	8	Duplicate soil sample from In - Situ 3-8 ft. from the middle of the south side of the biopile	--	3580	--	--	--	--	98,500
TSP-3	9/19/06	3	Duplicate soil sample from Pile 2 Middle sample located on the north side of the ex-situ stockpile	--	401	--	--	--	--	--
TSP-4	9/19/06	7	Duplicate soil sample from Pile 3 Bottom sample located on the west side of the ex-situ stockpile	--	428	--	--	--	--	--
TSP-5	9/19/06	2	Duplicate soil sample from Base Road 2 ft. sample located on the south side of the ex-situ stockpile	--	546	--	--	--	--	--
Trip Blank	9/18/06	--	--	<3.33	--	<0.0133	0.0986	<0.0333	<0.0500	--

Notes:
-- = Not analyzed, not applicable, or not sampled
All concentrations in milligrams per kilogram (mg/kg)
bgs = below ground surface
Total Petroleum Hydrocarbons as gasoline range hydrocarbons by AK 101
Total Petroleum Hydrocarbons as diesel and oil range hydrocarbons by AK 102 and with Silica Gel Acid Cleanup
Benzene, toluene, ethylbenzene, and xylenes by Environmental Protection Agency (EPA) Method 8021B
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270C
Total Organic Carbon (TOC) by EPA 9060 Modified

TABLE 4
SOIL ANALYTICAL RESULTS - PAHs
ConocoPhillips Site No. 0923
703 South Nordic Drive
Petersburg, Alaska

Sample Identification	BL-TP-2	BL-TP-5	TSP-2
Sample Date	9/18/2006	9/18/2006	09/19/06
Analyte			
Acenaphthene	13.3	14.4	17.4
Dibenzofuran	8.09	8.97	11.1
Fluoranthene	12.9	14.7	18.2
Fluorene	<7.94	8.04	16.1
Phenanthrene	15.8	17.6	32.1
Pyrene	8.82	9.93	11.9
2-Methylnaphthalene	<7.94	<7.49	11.2
Naphthalene	<7.94	<7.49	15.4

Notes:
All concentrations in milligrams per kilogram (mg/kg)
Only constituents for which detections were recorded are indicated
PAHs - polycyclic aromatic hydrocarbons
PAHs by EPA Method 8270-SIM
< = Less than the stated laboratory method reporting limit.

ATTACHMENT A
ANALYTICAL LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Biopile Treatment and Sampling
ConocoPhillips Site No. 0923
703 South Nordic Drive
Petersburg, Alaska
SECOR PN No.: 01CP.00923.05
March 5, 2007

TestAmerica
ANALYTICAL TESTING CORPORATION

ANCHORAGE, AK 2000 W INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210

September 13, 2006

Mark Sauze
SECOR - Redmond, WA
12034 134th Count NE, Suite 102
Redmond, WA 98052

RE: Petersburg-CP 0923

Enclosed are the results of analyses for samples received by the laboratory on 09/01/06 19:30. The following list is a summary of the Work Orders contained in this report, generated on 09/13/06 17:10.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
API0017	Petersburg-CP 0923	0923SEC002

Jennifer L. Poppe, Chemist I

TestAmerica
ANALYTICAL TESTING CORPORATION

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210

SECOR - Redmond, WA	Project Name:	**Petersburg-CP 0923**	
12034 134th Count NE, Suite 102	Project Number:	0923SEC002	Report Created:
Redmond, WA 98052	Project Manager:	Mark Sauze	09/13/06 17:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HB - A - 4	API0017-01	Soil	08/30/06 17:00	09/01/06 19:30
HB - B - 3	API0017-02	Soil	08/30/06 18:45	09/01/06 19:30

Jennifer L. Poppe, Chemist I

TestAmerica
ANALYTICAL TESTING CORPORATION

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210

SECOR - Redmond, WA	Project Name:	**Petersburg-CP 0923**	
12034 134th Count NE, Suite 102	Project Number:	0923SEC002	Report Created:
Redmond, WA 98052	Project Manager:	Mark Sauze	09/13/06 17:10

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0017-01 (HB - A - 4)		**Soil**			**Sampled: 08/30/06 17:00**					
Diesel Range Organics	AK102/103	ND	----	25.0	mg/kg dry	1x	6090017	09/06/06 07:46	09/07/06 13:32	
Residual Range Organics	"	ND	----	50.0	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*90.4%*		*50 - 150 %*	"			"	
Triacontane			*90.6%*		*50 - 150 %*	"			"	
API0017-02 (HB - B - 3)		**Soil**			**Sampled: 08/30/06 18:45**					
Diesel Range Organics	AK102/103	**125**	----	25.0	mg/kg dry	1x	6090017	09/06/06 07:46	09/07/06 10:53	
Residual Range Organics	"	**51.0**	----	50.0	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*87.0%*		*50 - 150 %*	"			"	
Triacontane			*90.6%*		*50 - 150 %*	"			"	

TestAmerica - Anchorage, AK

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210

SECOR - Redmond, WA	Project Name:	**Petersburg-CP 0923**	
12034 134th Count NE, Suite 102	Project Number:	0923SEC002	Report Created:
Redmond, WA 98052	Project Manager:	Mark Sauze	09/13/06 17:10

Physical Parameters by APHA/ASTM/EPA Methods

TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0017-01 (HB - A - 4)		**Soil**				**Sampled: 08/30/06 17:00**				
Dry Weight	TA-AK-FLS-00 5-R01	88.5	-----	1.00	%	1x	6090018	09/06/06 07:49	09/07/06 07:26	
API0017-02 (HB - B - 3)		**Soil**				**Sampled: 08/30/06 18:45**				
Dry Weight	TA-AK-FLS-00 5-R01	90.6	----	1.00	%	1x	6090018	09/06/06 07:49	09/07/06 07:26	

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SECOR - Redmond, WA	Project Name:	**Petersburg-CP 0923**	
12034 134th Count NE, Suite 102	Project Number:	0923SEC002	Report Created:
Redmond, WA 98052	Project Manager:	Mark Sauze	09/13/06 17:10

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090017 **Soil Preparation Method: EPA 3545**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6090017-BLK1)							Extracted: 09/06/06 07:46							
Diesel Range Organics	AK102/103	ND	---	25.0	mg/kg wet	1x	--	--	--	--	--	--	09/07/06 07:08	
Residual Range Organics	"	ND	---	50.0	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 94.9%*			*Limits: 50-150%*	"							*09/07/06 07:08*	
Triacontane		*94.6%*			*50-150%*	"							"	
LCS (6090017-BS1)							Extracted: 09/06/06 07:46							
Diesel Range Organics	AK102/103	112	---	25.0	mg/kg wet	1x	--	126	88.9%	(75-125)	--	--	09/07/06 06:36	
Residual Range Organics	"	123	---	50.0	"	"	--	"	97.6%	(60-120)	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 82.4%*			*Limits: 60-120%*	"							*09/07/06 06:36*	
Triacontane		*96.1%*			*60-120%*	"							"	
LCS Dup (6090017-BSD1)							Extracted: 09/06/06 07:46							
Diesel Range Organics	AK102/103	108	---	25.0	mg/kg wet	1x	--	126	85.7%	(75-125)	3.64%	(20)	09/07/06 06:04	
Residual Range Organics	"	117	---	50.0	"	"	--	"	92.9%	(60-120)	5.00%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 81.6%*			*Limits: 60-120%*	"							*09/07/06 06:04*	
Triacontane		*93.0%*			*60-120%*	"							"	
Duplicate (6090017-DUP1)					QC Source: API0007-45		Extracted: 09/06/06 07:46							
Diesel Range Organics	AK102/103	ND	---	25.0	mg/kg dry	1x	ND	--	--	--	47.4%	(20)	09/07/06 06:04	RP-4
Residual Range Organics	"	ND	---	50.0	"	"	ND	--	--	--	18.1%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 82.9%*			*Limits: 50-150%*	"							*09/07/06 06:04*	
Triacontane		*83.3%*			*50-150%*	"							"	
Matrix Spike (6090017-MS1)					QC Source: API0007-45		Extracted: 09/06/06 07:46							
Diesel Range Organics	AK102/103	119	---	25.0	mg/kg dry	1x	3.75	136	84.7%	(75-125)	--	--	09/07/06 07:08	
Residual Range Organics	"	128	---	50.0	"	"	9.65	"	87.0%	(60-150)	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 91.8%*			*Limits: 50-150%*	"							*09/07/06 07:08*	
Triacontane		*88.5%*			*50-150%*	"							"	
Matrix Spike Dup (6090017-MSD1)					QC Source: API0007-45		Extracted: 09/06/06 07:46							
Diesel Range Organics	AK102/103	115	---	25.0	mg/kg dry	1x	3.75	135	82.4%	(75-125)	3.42%	(25)	09/07/06 07:40	
Residual Range Organics	"	120	---	50.0	"	"	9.65	"	81.7%	(60-150)	6.45%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 88.4%*			*Limits: 50-150%*	"							*09/07/06 07:40*	
Triacontane		*85.5%*			*50-150%*	"							"	

TestAmerica - Anchorage, AK

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SECOR - Redmond, WA	Project Name:	**Petersburg-CP 0923**	
12034 134th Count NE, Suite 102	Project Number:	0923SEC002	Report Created:
Redmond, WA 98052	Project Manager:	Mark Sauze	09/13/06 17:10

Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090018 **Soil Preparation Method: *** DEFAULT PREP**

Analyte	Method	Result	MDL^	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (6090018-DUP1)					QC Source: API0007-45				Extracted: 09/06/06 07:49					
Dry Weight	TA-AK-FLS-005-R01	90.0	---	1.00	%	1x	90.3	--	--	--	0.333%	(25)	09/07/06 07:26	

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SECOR - Redmond, WA	Project Name:	**Petersburg-CP 0923**	
12034 134th Count NE, Suite 102	Project Number:	0923SEC002	Report Created:
Redmond, WA 98052	Project Manager:	Mark Sauze	09/13/06 17:10

Notes and Definitions

Report Specific Notes:

RP-4 - Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR/NA - Not Reported / Not Available

dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.

wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.

RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Jennifer L. Poppe, Chemist I

TestAmerica
ANALYTICAL TESTING CORPORATION

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave, Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210 [X]

CHAIN OF CUSTODY REPORT

Work Order #: AP I0117

CLIENT: SECOR International Inc.
REPORT TO: Marc Sauze
ADDRESS: 12034 134th CT, NE STE 102, Redmond WA, 98052
PHONE: 425-372-1600 FAX: msauze@secor.com

INVOICE TO: SECOR ATTN: Marc Sauze, 12034 134th CT NE, STE #102, Redmond, WA, 98052
P.O. NUMBER: 0923

PROJECT NAME: 0923 Petersburg
PROJECT NUMBER: 0923
SAMPLED BY: August Welch

TURNAROUND REQUEST in Business Days*
Organic & Inorganic Analyses: 10 (STD) 7 5 4 3 2 1 <1
Petroleum Hydrocarbon Analyses: [X] 5 (STD) 4 3 2 1 <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	DRO	ORO	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	TA WO ID
PRESERVATIVE			—	—				
1	HB-A-4	8/30/06 5:00PM	X	X	S	1		01
2	HB-B-3	8/30/06 6:45PM	X	X	S	1		02
3								
4								
5								
6								
7								
8								
9								
10								

RELEASED BY: August Welch DATE: 8/31/06
PRINT NAME: August Welch FIRM: TIME: 13:00
RECEIVED BY: [signature] for Troy Engstrom DATE: [illegible]
PRINT NAME: [illegible] for Troy Engstrom FIRM: TA-AK TIME: 1730
RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:
RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS: DRO and ORO by AK102 and AK103

TEMP: 2°C PAGE OF

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and for any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice unless otherwise contracted. Sample(s) will be disposed of after 30 days unless otherwise contracted.

Test America Cooler Receipt Form

WORK ORDER # AP I00 17 CLIENT: Secor PROJECT: Petersburg

[illegible] 09 01 06 17 30 [illegible] Troy Engstrom

(Print name)

Preliminary Examination Phase:

[illegible] 09 02 06

1. [illegible] (print) Jason Vetter [illegible] (sign) [signature]

2. [illegible] X [illegible]

Shipment tracking # if applicable 822431-40 (include copy of shipping papers in file)

2. Number of Custody Seals Ø Signed by ____ Date ____

Were custody seals unbroken and intact on arrival? ☐ Yes ☐ No

3. Were custody papers sealed in a plastic bag? ☑ Yes ☐ No

4. Were custody papers filled out properly (ink, signed, etc.)? ☑ Yes ☐ No

5. Did you sign the custody papers in the appropriate place? ☑ Yes ☐ No

6. Was ice used? ☑ Yes ☐ No Type of ice: ☐ blue ice ☑ gel ice ☐ real ice ☐ dry ice Condition of Ice: Hard

Temperature by Digi-Thermo Probe 2.2 °C Thermometer # Rectt 4

7. Packing in Cooler: ☒ bubble wrap ☐ styrofoam ☐ cardboard ☐ Other ____

8. Did samples arrive in plastic bags? ☐ Yes ☒ No

9. Did all bottles arrive unbroken, and with labels in good condition? ☒ Yes ☐ No

10. Are all bottle labels complete (ID, date, time, etc.) ☒ Yes ☐ No

11. Do bottle labels and Chain of Custody agree? ☒ Yes ☐ No

12. Are the containers and preservatives correct for the tests indicated? ☒ Yes ☐ No

13. Is there adequate volume for the tests requested? ☒ Yes ☐ No

14. Were VOA vials free of bubbles? ☒ N/A ☐ Yes ☐ No

If "NO" which containers contained "head-space" or bubbles? ____

Log-in Phase:

Date of sample log-in 09 05 06

Samples logged in by (print) Johanna Dreher (sign) [signature]

1. [illegible] ☒ Yes ☐ No

2. [illegible] ☒ Yes ☐ No

3. [illegible] ☒ Yes ☐ No

4. [illegible] ☒ Yes ☐ No

5. [illegible] ☒ Yes ☐ No

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ANCHORAGE, AK 2000 W INTERNATIONAL AIRPORT ROAD, SUITE A-10
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Amended Report

January 12, 2007

Katelin Hanson
SECOR - Redmond, WA
12034 134th Count NE, Suite 102
Redmond, WA 98052

RE: Petersburg

Enclosed are the results of analyses for samples received by the laboratory on 09/21/06 11:10. The following list is a summary of the Work Orders contained in this report, generated on 01/12/07 11:42.

If you have any questions concerning this report, please feel free to contact me.

Amended Report: All results reported here supercede any previously reported results.

Work Order	Project	ProjectNumber
API0078	Petersburg	01CP.00923.05

Amended Report

Rachel J James For Jennifer L. Poppe, Chemist I

TestAmerica
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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BL- TP - 1	API0078-01	Soil	09/18/06 11:45	09/21/06 11:10
BL- TP - 2	API0078-02	Soil	09/18/06 12:15	09/21/06 11:10
BL- TP - 3	API0078-03	Soil	09/18/06 13:00	09/21/06 11:10
BL- TP - 4	API0078-04	Soil	09/18/06 13:45	09/21/06 11:10
BL- TP - 5	API0078-05	Soil	09/18/06 14:20	09/21/06 11:10
BL- TP -6	API0078-06	Soil	09/18/06 14:50	09/21/06 11:10
TSP - 1	API0078-07	Soil	09/19/06 09:40	09/21/06 11:10
TSP - 2	API0078-08	Soil	09/19/06 10:05	09/21/06 11:10
TSP - 3	API0078-09	Soil	09/19/06 10:35	09/21/06 11:10
TSP - 4	API0078-10	Soil	09/19/06 10:50	09/21/06 11:10
TSP - 5	API0078-11	Soil	09/19/06 11:35	09/21/06 11:10
Trip Blank	API0078-12	Soil	09/18/06 00:00	09/21/06 11:10

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Gasoline Range Organics (C6-C10) and BTEX per AK101

TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-02 (BL- TP - 2)		**Soil**			**Sampled: 09/18/06 12:15**					
Gasoline Range Organics	AK101 GRO/BTEX	**39.1**	----	12.6	mg/kg dry	1x	6090110	09/27/06 10:27	09/28/06 15:11	
Benzene	"	ND	----	0.0504	"	"	"	"	"	
Toluene	"	ND	----	0.126	"	"	"	"	"	
Ethylbenzene	"	**0.759**	----	0.126	"	"	"	"	"	
Xylenes (total)	"	**3.05**	----	0.189	"	"	"	"	"	
Surrogate(s): a,a,a-TFT (FID)			*85.0%*		*50 - 150 %*	"			"	
a,a,a-TFT (PID)			*79.5%*		*20.2 - 131 %*	"			"	
API0078-05 (BL- TP - 5)		**Soil**			**Sampled: 09/18/06 14:20**					
Gasoline Range Organics	AK101 GRO/BTEX	**20.8**	----	6.50	mg/kg dry	1.95x	6090110	09/27/06 10:27	09/28/06 15:44	
Benzene	"	**0.0536**	----	0.0260	"	"	"	"	"	
Toluene	"	ND	----	0.0650	"	"	"	"	"	
Ethylbenzene	"	**0.348**	----	0.0650	"	"	"	"	"	
Xylenes (total)	"	**2.18**	----	0.0975	"	"	"	"	"	
Surrogate(s): a,a,a-TFT (FID)			*74.8%*		*50 - 150 %*	"			"	
a,a,a-TFT (PID)			*62.4%*		*20.2 - 131 %*	"			"	
API0078-12 (Trip Blank)		**Soil**			**Sampled: 09/18/06 00:00**					
Gasoline Range Organics	AK101 GRO/BTEX	ND	----	3.33	mg/kg wet	1x	6090110	09/27/06 10:27	09/27/06 22:27	
Benzene	"	ND	----	0.0133	"	"	"	"	"	
Toluene	"	**0.0986**	----	0.0333	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.0333	"	"	"	"	"	
Xylenes (total)	"	ND	----	0.0500	"	"	"	"	"	
Surrogate(s): a,a,a-TFT (FID)			*87.9%*		*50 - 150 %*	"			"	
a,a,a-TFT (PID)			*82.5%*		*20.2 - 131 %*	"			"	

Amended Report

Rachel J James For Jennifer L. Poppe, Chemist I

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Diesel Range Organics (C10-C25) per AK102 with Silica Gel Cleanup

TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-01 (BL- TP - 1)		**Soil**			**Sampled: 09/18/06 11:45**					
Diesel Range Organics	AK 102	**1930**	----	131	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 15:27	**R-01**
Surrogate(s): 1-Chlorooctadecane			*100%*		*50 - 150 %*	"			"	
API0078-02 (BL- TP - 2)		**Soil**			**Sampled: 09/18/06 12:15**					
Diesel Range Organics	AK 102	**1830**	----	127	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 16:32	**R-01**
Surrogate(s): 1-Chlorooctadecane			*83.3%*		*50 - 150 %*	"			"	
API0078-03 (BL- TP - 3)		**Soil**			**Sampled: 09/18/06 13:00**					
Diesel Range Organics	AK 102	**1280**	----	50.0	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 17:04	**R-01**
Surrogate(s): 1-Chlorooctadecane			*108%*		*50 - 150 %*	"			"	
API0078-04 (BL- TP - 4)		**Soil**			**Sampled: 09/18/06 13:45**					
Diesel Range Organics	AK 102	**877**	----	177	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 17:04	**R-01**
Surrogate(s): 1-Chlorooctadecane			*81.5%*		*50 - 150 %*	"			"	
API0078-05 (BL- TP - 5)		**Soil**			**Sampled: 09/18/06 14:20**					
Diesel Range Organics	AK 102	**1660**	----	50.0	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 18:09	**R-01**
Surrogate(s): 1-Chlorooctadecane			*109%*		*50 - 150 %*	"			"	
API0078-06 (BL- TP -6)		**Soil**			**Sampled: 09/18/06 14:50**					
Diesel Range Organics	AK 102	**360**	----	329	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 18:09	**R-01**
Surrogate(s): 1-Chlorooctadecane			*81.5%*		*50 - 150 %*	"			"	
API0078-07 (TSP - 1)		**Soil**			**Sampled: 09/19/06 09:40**					
Diesel Range Organics	AK 102	**1880**	----	104	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 18:42	**R-01**
Surrogate(s): 1-Chlorooctadecane			*116%*		*50 - 150 %*	"			"	
API0078-08 (TSP - 2)		**Soil**			**Sampled: 09/19/06 10:05**					
Diesel Range Organics	AK 102	**3580**	----	156	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 18:42	**R-01**
Surrogate(s): 1-Chlorooctadecane			*92.1%*		*50 - 150 %*	"			"	

TestAmerica - Anchorage, AK

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Amended Report

Rachel J James For Jennifer L. Poppe, Chemist I

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Diesel Range Organics (C10-C25) per AK102 with Silica Gel Cleanup

TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-09 (TSP - 3)		**Soil**			**Sampled: 09/19/06 10:35**					
Diesel Range Organics	AK 102	**401**	----	50.0	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 19:14	**R-01**
Surrogate(s): 1-Chlorooctadecane			*94.3%*		*50 - 150 %*	"			"	
API0078-10 (TSP - 4)		**Soil**			**Sampled: 09/19/06 10:50**					
Diesel Range Organics	AK 102	**428**	----	50.0	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 19:14	**R-01**
Surrogate(s): 1-Chlorooctadecane			*103%*		*50 - 150 %*	"			"	
API0078-11 (TSP - 5)		**Soil**			**Sampled: 09/19/06 11:35**					
Diesel Range Organics	AK 102	**546**	----	104	mg/kg dry	2x	6090100	09/25/06 11:42	09/26/06 19:46	**R-01**
Surrogate(s): 1-Chlorooctadecane			*97.2%*		*50 - 150 %*	"			"	

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Amended Report

Rachel J James For Jennifer L. Poppe, Chemist I

TestAmerica
ANALYTICAL TESTING CORPORATION

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210

Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Physical Parameters by APHA/ASTM/EPA Methods

TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-01 (BL- TP - 1)		**Soil**			**Sampled: 09/18/06 11:45**					
Dry Weight	TA-SOP	38.2	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	
API0078-02 (BL- TP - 2)		**Soil**			**Sampled: 09/18/06 12:15**					
Dry Weight	TA-SOP	39.3	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	
API0078-03 (BL- TP - 3)		**Soil**			**Sampled: 09/18/06 13:00**					
Dry Weight	TA-SOP	55.1	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	
API0078-04 (BL- TP - 4)		**Soil**			**Sampled: 09/18/06 13:45**					
Dry Weight	TA-SOP	28.2	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	
API0078-05 (BL- TP - 5)		**Soil**			**Sampled: 09/18/06 14:20**					
Dry Weight	TA-SOP	52.3	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	
API0078-06 (BL- TP -6)		**Soil**			**Sampled: 09/18/06 14:50**					
Dry Weight	TA-SOP	15.2	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	
API0078-07 (TSP - 1)		**Soil**			**Sampled: 09/19/06 09:40**					
Dry Weight	TA-SOP	48.0	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	
API0078-08 (TSP - 2)		**Soil**			**Sampled: 09/19/06 10:05**					
Dry Weight	TA-SOP	32.0	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	
API0078-09 (TSP - 3)		**Soil**			**Sampled: 09/19/06 10:35**					
Dry Weight	TA-SOP	56.0	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	
API0078-10 (TSP - 4)		**Soil**			**Sampled: 09/19/06 10:50**					
Dry Weight	TA-SOP	56.8	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	
API0078-11 (TSP - 5)		**Soil**			**Sampled: 09/19/06 11:35**					
Dry Weight	TA-SOP	48.3	----	1.00	%	1x	6090101	09/25/06 11:46	09/26/06 07:12	

Amended Report

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-02 (BL- TP - 2)		**Soil**			**Sampled: 09/18/06 12:15**					**R-05**
Acenaphthene	EPA 8270C	**13.3**	----	7.94	mg/kg dry	4x	6091254	09/29/06 12:30	09/29/06 23:42	
Acenaphthylene	"	ND	----	7.94	"	"	"	"	"	
Anthracene	"	ND	----	7.94	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	7.94	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	7.94	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	7.94	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	7.94	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	7.94	"	"	"	"	"	
Benzoic Acid	"	ND	----	24.1	"	"	"	"	"	
Benzyl alcohol	"	ND	----	24.1	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND	----	7.94	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	7.94	"	"	"	"	"	
4-Chloro-3-methylphenol	"	ND	----	7.94	"	"	"	"	"	
4-Chloroaniline	"	ND	----	48.1	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	----	7.94	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	----	7.94	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	----	7.94	"	"	"	"	"	
2-Chloronaphthalene	"	ND	----	7.94	"	"	"	"	"	
2-Chlorophenol	"	ND	----	7.94	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	----	7.94	"	"	"	"	"	
Chrysene	"	ND	----	7.94	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	24.1	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	7.94	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	7.94	"	"	"	"	"	
Dibenzofuran	"	**8.09**	----	7.94	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	24.1	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	24.1	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	24.1	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	24.1	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	7.94	"	"	"	"	"	
Diethyl phthalate	"	ND	----	7.94	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	24.1	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	7.94	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	24.1	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	48.1	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	12.0	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	----	12.0	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	48.1	"	"	"	"	"	
Fluoranthene	"	**12.9**	----	7.94	"	"	"	"	"	
Fluorene	"	ND	----	7.94	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	7.94	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	24.1	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	24.1	"	"	"	"	"	

TestAmerica - Anchorage, AK

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Amended Report

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-02 (BL- TP - 2)		**Soil**			**Sampled: 09/18/06 12:15**					**R-05**
Hexachloroethane	EPA 8270C	ND	---	24.1	mg/kg dry	4x	6091254	09/29/06 12:30	09/29/06 23:42	
Indeno (1,2,3-cd) pyrene	"	ND	---	7.94	"	"	"	"	"	
Isophorone	"	ND	---	7.94	"	"	"	"	"	
2-Methylnaphthalene	"	ND	---	7.94	"	"	"	"	"	
2-Methylphenol	"	ND	---	7.94	"	"	"	"	"	
3-,4-Methylphenol	"	ND	---	7.94	"	"	"	"	"	
Naphthalene	"	ND	---	7.94	"	"	"	"	"	
2-Nitroaniline	"	ND	---	7.94	"	"	"	"	"	
3-Nitroaniline	"	ND	---	24.1	"	"	"	"	"	
4-Nitroaniline	"	ND	---	7.94	"	"	"	"	"	
Nitrobenzene	"	ND	---	7.94	"	"	"	"	"	
2-Nitrophenol	"	ND	---	7.94	"	"	"	"	"	
4-Nitrophenol	"	ND	---	24.1	"	"	"	"	"	
N-Nitrosodi-n-propylamine	"	ND	---	7.94	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	---	7.94	"	"	"	"	"	
Pentachlorophenol	"	ND	---	24.1	"	"	"	"	"	
Phenanthrene	"	**15.8**	---	7.94	"	"	"	"	"	
Phenol	"	ND	---	7.94	"	"	"	"	"	
Pyrene	"	**8.82**	---	7.94	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	---	24.1	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	---	7.94	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	---	7.94	"	"	"	"	"	
Surrogate(s): 2-Fluorobiphenyl		*96.5%*		*30 - 115 %*	"				"	
2-Fluorophenol		*79.3%*		*25 - 121 %*	"				"	
Nitrobenzene-d5		*81.4%*		*23 - 120 %*	"				"	
Phenol-d6		*92.0%*		*24 - 113 %*	"				"	
p-Terphenyl-d14		*94.1%*		*18 - 137 %*	"				"	
2,4,6-Tribromophenol		*85.3%*		*19 - 122 %*	"				"	
API0078-05 (BL- TP - 5)		**Soil**			**Sampled: 09/18/06 14:20**					**R-05**
Acenaphthene	EPA 8270C	**14.4**	---	7.49	mg/kg dry	4x	6091254	09/29/06 12:30	09/29/06 22:11	
Acenaphthylene	"	ND	---	7.49	"	"	"	"	"	
Anthracene	"	ND	---	7.49	"	"	"	"	"	
Benzo (a) anthracene	"	ND	---	7.49	"	"	"	"	"	
Benzo (a) pyrene	"	ND	---	7.49	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	---	7.49	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	---	7.49	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	---	7.49	"	"	"	"	"	
Benzoic Acid	"	ND	---	22.7	"	"	"	"	"	
Benzyl alcohol	"	ND	---	22.7	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND	---	7.49	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	---	7.49	"	"	"	"	"	

TestAmerica - Anchorage, AK

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Amended Report

Rachel J James For Jennifer L. Poppe, Chemist I

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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210

Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C

TestAmerica - Portland, OR

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-05 (BL- TP - 5)		**Soil**			**Sampled: 09/18/06 14:20**					**R-05**
4-Chloro-3-methylphenol	EPA 8270C	ND	—	7.49	mg/kg dry	4x	6091254	09/29/06 12:30	09/29/06 22:11	
4-Chloroaniline	"	ND	—	45.4	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	—	7.49	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	—	7.49	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	—	7.49	"	"	"	"	"	
2-Chloronaphthalene	"	ND	—	7.49	"	"	"	"	"	
2-Chlorophenol	"	ND	—	7.49	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	—	7.49	"	"	"	"	"	
Chrysene	"	ND	—	7.49	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	—	22.7	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	—	7.49	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	7.49	"	"	"	"	"	
Dibenzofuran	"	**8.97**	—	7.49	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	—	22.7	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	—	22.7	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	—	22.7	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	—	22.7	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	—	7.49	"	"	"	"	"	
Diethyl phthalate	"	ND	—	7.49	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	—	22.7	"	"	"	"	"	
Dimethyl phthalate	"	ND	—	7.49	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	—	22.7	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	—	45.4	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	—	11.4	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	—	11.4	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	—	45.4	"	"	"	"	"	
Fluoranthene	"	**14.7**	—	7.49	"	"	"	"	"	
Fluorene	"	**8.04**	—	7.49	"	"	"	"	"	
Hexachlorobenzene	"	ND	—	7.49	"	"	"	"	"	
Hexachlorobutadiene	"	ND	—	22.7	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	—	22.7	"	"	"	"	"	
Hexachloroethane	"	ND	—	22.7	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	7.49	"	"	"	"	"	
Isophorone	"	ND	—	7.49	"	"	"	"	"	
2-Methylnaphthalene	"	ND	—	7.49	"	"	"	"	"	
2-Methylphenol	"	ND	—	7.49	"	"	"	"	"	
3-,4-Methylphenol	"	ND	—	7.49	"	"	"	"	"	
Naphthalene	"	ND	—	7.49	"	"	"	"	"	
2-Nitroaniline	"	ND	—	7.49	"	"	"	"	"	
3-Nitroaniline	"	ND	—	22.7	"	"	"	"	"	
4-Nitroaniline	"	ND	—	7.49	"	"	"	"	"	
Nitrobenzene	"	ND	—	7.49	"	"	"	"	"	
2-Nitrophenol	"	ND	—	7.49	"	"	"	"	"	

TestAmerica - Anchorage, AK

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C

TestAmerica - Portland, OR

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-05 (BL- TP - 5)		**Soil**			**Sampled: 09/18/06 14:20**					**R-05**
4-Nitrophenol	EPA 8270C	ND	----	22.7	mg/kg dry	4x	6091254	09/29/06 12:30	09/29/06 22:11	
N-Nitrosodi-n-propylamine	"	ND	----	7.49	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	7.49	"	"	"	"	"	
Pentachlorophenol	"	ND	----	22.7	"	"	"	"	"	
Phenanthrene	"	**17.6**	----	7.49	"	"	"	"	"	
Phenol	"	ND	----	7.49	"	"	"	"	"	
Pyrene	"	**9.93**	----	7.49	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	22.7	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	7.49	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	7.49	"	"	"	"	"	
Surrogate(s): 2-Fluorobiphenyl			*107%*		*30 - 115 %*	"			"	
2-Fluorophenol			*83.8%*		*25 - 121 %*	"			"	
Nitrobenzene-d5			*89.7%*		*23 - 120 %*	"			"	
Phenol-d6			*98.6%*		*24 - 113 %*	"			"	
p-Terphenyl-d14			*106%*		*18 - 137 %*	"			"	
2,4,6-Tribromophenol			*102%*		*19 - 122 %*	"			"	
API0078-08 (TSP - 2)		**Soil**			**Sampled: 09/19/06 10:05**					**R-05**
Acenaphthene	EPA 8270C	**17.4**	----	5.96	mg/kg dry	4x	6091254	09/29/06 12:30	09/30/06 00:27	
Acenaphthylene	"	ND	----	5.96	"	"	"	"	"	
Anthracene	"	ND	----	5.96	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	5.96	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	5.96	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	5.96	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	5.96	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	5.96	"	"	"	"	"	
Benzoic Acid	"	ND	----	18.1	"	"	"	"	"	
Benzyl alcohol	"	ND	----	18.1	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND	----	5.96	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	5.96	"	"	"	"	"	
4-Chloro-3-methylphenol	"	ND	----	5.96	"	"	"	"	"	
4-Chloroaniline	"	ND	----	36.1	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	----	5.96	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	----	5.96	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	----	5.96	"	"	"	"	"	
2-Chloronaphthalene	"	ND	----	5.96	"	"	"	"	"	
2-Chlorophenol	"	ND	----	5.96	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	----	5.96	"	"	"	"	"	
Chrysene	"	ND	----	5.96	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	18.1	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	5.96	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	5.96	"	"	"	"	"	

TestAmerica - Anchorage, AK

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-08 (TSP - 2)		**Soil**			**Sampled: 09/19/06 10:05**					**R-05**
Dibenzofuran	EPA 8270C	**11.1**	----	5.96	mg/kg dry	4x	6091254	09/29/06 12:30	09/30/06 00:27	
1,2-Dichlorobenzene	"	ND	----	18.1	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	18.1	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	18.1	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	18.1	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	5.96	"	"	"	"	"	
Diethyl phthalate	"	ND	----	5.96	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	18.1	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	5.96	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	18.1	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	36.1	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	9.03	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	----	9.03	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	36.1	"	"	"	"	"	
Fluoranthene	"	**18.2**	----	5.96	"	"	"	"	"	
Fluorene	"	**16.1**	----	5.96	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	5.96	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	18.1	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	18.1	"	"	"	"	"	
Hexachloroethane	"	ND	----	18.1	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	5.96	"	"	"	"	"	
Isophorone	"	ND	----	5.96	"	"	"	"	"	
2-Methylnaphthalene	"	**11.2**	----	5.96	"	"	"	"	"	
2-Methylphenol	"	ND	----	5.96	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	5.96	"	"	"	"	"	
Naphthalene	"	**15.4**	----	5.96	"	"	"	"	"	
2-Nitroaniline	"	ND	----	5.96	"	"	"	"	"	
3-Nitroaniline	"	ND	----	18.1	"	"	"	"	"	
4-Nitroaniline	"	ND	----	5.96	"	"	"	"	"	
Nitrobenzene	"	ND	----	5.96	"	"	"	"	"	
2-Nitrophenol	"	ND	----	5.96	"	"	"	"	"	
4-Nitrophenol	"	ND	----	18.1	"	"	"	"	"	
N-Nitrosodi-n-propylamine	"	ND	----	5.96	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	5.96	"	"	"	"	"	
Pentachlorophenol	"	ND	----	18.1	"	"	"	"	"	
Phenanthrene	"	**32.1**	----	5.96	"	"	"	"	"	
Phenol	"	ND	----	5.96	"	"	"	"	"	
Pyrene	"	**11.9**	----	5.96	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	18.1	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	5.96	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	5.96	"	"	"	"	"	
Surrogate(s): 2-Fluorobiphenyl			*105%*		*30 - 115 %*	"				

TestAmerica - Anchorage, AK

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Amended Report

Rachel J James For Jennifer L. Poppe, Chemist I

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-08 (TSP - 2)		**Soil**			**Sampled: 09/19/06 10:05**					**R-05**
2-Fluorophenol		*84.1%*			*25 - 121 %*	*4x*			*09/30/06 00:27*	
Nitrobenzene-d5		*89.4%*			*23 - 120 %*	"			"	
Phenol-d6		*101%*			*24 - 113 %*	"			"	
p-Terphenyl-d14		*93.6%*			*18 - 137 %*	"			"	
2,4,6-Tribromophenol		*104%*			*19 - 122 %*	"			"	

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Amended Report

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12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Percent Dry Weight (Solids) per Standard Methods

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-02 (BL- TP - 2)		**Soil**				**Sampled: 09/18/06 12:15**				
% Solids	NCA SOP	33.1	----	0.00	% by Weight	1x	6090951	09/23/06 10:22	09/23/06 10:22	
API0078-05 (BL- TP - 5)		**Soil**				**Sampled: 09/18/06 14:20**				
% Solids	NCA SOP	35.1	----	0.00	% by Weight	1x	6090951	09/23/06 10:22	09/23/06 10:22	
API0078-08 (TSP - 2)		**Soil**				**Sampled: 09/19/06 10:05**				
% Solids	NCA SOP	44.2	----	0.00	% by Weight	1x	6090951	09/23/06 10:22	09/23/06 10:22	

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Conventional Chemistry Parameters by APHA/EPA Methods

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-01 (BL- TP - 1)		**Soil**				**Sampled: 09/18/06 11:45**				
Total Organic Carbon	EPA 9060 mod.	191000	----	2310	mg/kg dry	1x	6J06056	09/29/06 18:10	10/06/06 18:44	
API0078-02 (BL- TP - 2)		**Soil**				**Sampled: 09/18/06 12:15**				
Total Organic Carbon	EPA 9060 mod.	298000	----	3140	mg/kg dry	1x	6J06056	09/29/06 18:10	10/06/06 18:58	
API0078-03 (BL- TP - 3)		**Soil**				**Sampled: 09/18/06 13:00**				
Total Organic Carbon	EPA 9060 mod.	81900	----	1670	mg/kg dry	1x	6J06056	09/29/06 18:10	10/06/06 19:05	
API0078-04 (BL- TP - 4)		**Soil**				**Sampled: 09/18/06 13:45**				
Total Organic Carbon	EPA 9060 mod.	162000	----	2400	mg/kg dry	1x	6J06056	09/29/06 18:10	10/06/06 19:12	
API0078-05 (BL- TP - 5)		**Soil**				**Sampled: 09/18/06 14:20**				
Total Organic Carbon	EPA 9060 mod.	88500	----	2340	mg/kg dry	1x	6J06056	09/29/06 18:10	10/06/06 19:19	
API0078-06 (BL- TP -6)		**Soil**				**Sampled: 09/18/06 14:50**				
Total Organic Carbon	EPA 9060 mod.	360000	----	6330	mg/kg dry	1x	6J06056	09/29/06 18:10	10/06/06 19:27	
API0078-08 (TSP - 2)		**Soil**				**Sampled: 09/19/06 10:05**				
Total Organic Carbon	EPA 9060 mod.	98500	----	1990	mg/kg dry	1x	6J06056	09/29/06 18:10	10/06/06 19:34	

Amended Report

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Physical Parameters by APHA/ASTM/EPA Methods

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0078-01 (BL- TP - 1)		**Soil**				**Sampled: 09/18/06 11:45**				
Dry Weight	BSOPSPL003R08	43.3	----	1.00	%	1x	6J09049	10/09/06 18:00	10/10/06 00:00	
API0078-02 (BL- TP - 2)		**Soil**				**Sampled: 09/18/06 12:15**				
Dry Weight	BSOPSPL003R08	31.8	----	1.00	%	1x	6J09049	10/09/06 18:00	10/10/06 00:00	
API0078-03 (BL- TP - 3)		**Soil**				**Sampled: 09/18/06 13:00**				
Dry Weight	BSOPSPL003R08	59.9	----	1.00	%	1x	6J09049	10/09/06 18:00	10/10/06 00:00	
API0078-04 (BL- TP - 4)		**Soil**				**Sampled: 09/18/06 13:45**				
Dry Weight	BSOPSPL003R08	41.6	----	1.00	%	1x	6J09049	10/09/06 18:00	10/10/06 00:00	
API0078-05 (BL- TP - 5)		**Soil**				**Sampled: 09/18/06 14:20**				
Dry Weight	BSOPSPL003R08	42.7	----	1.00	%	1x	6J09049	10/09/06 18:00	10/10/06 00:00	
API0078-06 (BL- TP -6)		**Soil**				**Sampled: 09/18/06 14:50**				
Dry Weight	BSOPSPL003R08	15.8	----	1.00	%	1x	6J09049	10/09/06 18:00	10/10/06 00:00	
API0078-08 (TSP - 2)		**Soil**				**Sampled: 09/19/06 10:05**				
Dry Weight	BSOPSPL003R08	50.2	----	1.00	%	1x	6J09049	10/09/06 18:00	10/10/06 00:00	

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Gasoline Range Organics (C6-C10) and BTEX per AK101 - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090110 **Soil Preparation Method: AK101 Field Prep**

Analyte	Method	Result	MDL^A	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6090110-BLK1)							Extracted: 09/27/06 10:27							
Gasoline Range Organics	AK101 GRO/BTEX	ND	---	3.33	mg/kg wet	1x	--	--	--	--	--	--	09/27/06 19:42	
Benzene	"	ND	---	0.0133	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 94.2%*			*Limits: 50-150%*	"							*09/27/06 19:42*	
a,a,a-TFT (PID)		*85.4%*			*20.2-131%*	"							"	
LCS (6090110-BS1)							Extracted: 09/27/06 10:27							
Gasoline Range Organics	AK101 GRO/BTEX	18.2	---	3.33	mg/kg wet	1x	--	22.0	82.7%	(60-120)	--	--	09/27/06 18:36	
Benzene	"	0.320	---	0.0133	"	"	--	0.328	97.6%	(73.1-117)	--	--	"	
Toluene	"	1.54	---	0.0333	"	"	--	1.66	92.8%	(70.4-117)	--	--	"	
Ethylbenzene	"	0.425	---	0.0333	"	"	--	0.388	110%	(73.3-121)	--	--	"	
Xylenes (total)	"	1.93	---	0.0500	"	"	--	1.91	101%	(79-121)	--	--	"	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 94.6%*			*Limits: 50-150%*	"							*09/27/06 18:36*	
a,a,a-TFT (PID)		*89.6%*			*20.2-131%*	"							"	
LCS Dup (6090110-BSD1)							Extracted: 09/27/06 10:27							
Gasoline Range Organics	AK101 GRO/BTEX	18.6	---	3.33	mg/kg wet	1x	--	22.0	84.5%	(60-120)	2.17%	(20)	09/27/06 19:09	
Benzene	"	0.333	---	0.0133	"	"	--	0.328	102%	(73.1-117)	3.98%	(12.6)	"	
Toluene	"	1.63	---	0.0333	"	"	--	1.66	98.2%	(70.4-117)	5.68%	(11.4)	"	
Ethylbenzene	"	0.405	---	0.0333	"	"	--	0.388	104%	(73.3-121)	4.82%	(9.89)	"	
Xylenes (total)	"	2.01	---	0.0500	"	"	--	1.91	105%	(79-121)	4.06%	(11.1)	"	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 97.9%*			*Limits: 50-150%*	"							*09/27/06 19:09*	
a,a,a-TFT (PID)		*94.2%*			*20.2-131%*	"							"	
Duplicate (6090110-DUP1)					QC Source: API0083-01		Extracted: 09/27/06 10:27							
Gasoline Range Organics	AK101 GRO/BTEX	ND	---	3.36	mg/kg dry	2.7x	ND	--	--	--	39.2%	(50)	09/28/06 01:13	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 86.8%*			*Limits: 50-150%*	"							*09/28/06 01:13*	
Matrix Spike (6090110-MS1)					QC Source: API0083-01		Extracted: 09/27/06 10:27							
Benzene	AK101 GRO/BTEX	0.817	---	0.0134	mg/kg dry	2.7x	0.00281	0.715	114%	(70.6-120)	--	--	09/28/06 01:46	
Toluene	"	0.797	---	0.0336	"	"	0.0107	0.684	115%	(74.6-120)	--	--	"	
Ethylbenzene	"	0.875	---	0.0336	"	"	ND	0.687	127%	(72.4-127)	--	--	"	
Xylenes (total)	"	2.44	---	0.0504	"	"	0.0406	2.07	116%	(81-122)	--	--	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery: 89.1%*			*Limits: 20.2-131%*	"							*09/28/06 01:46*	

TestAmerica - Anchorage, AK

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Amended Report

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Gasoline Range Organics (C6-C10) and BTEX per AK101 - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090110 **Soil Preparation Method: AK101 Field Prep**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (6090110-MSD1)					QC Source: API0083-01				Extracted: 09/27/06 10:27					
Benzene	AK101 GRO/BTEX	0.748	---	0.0134	mg/kg dry	2.7x	0.00281	0.715	104%	(70.6-120)	8.82%	(11.3)	09/28/06 02:19	
Toluene	"	0.739	---	0.0336	"	"	0.0107	0.684	106%	(74.6-120)	7.55%	(11.1)	"	
Ethylbenzene	"	0.810	---	0.0336	"	"	ND	0.687	118%	(72.4-127)	7.72%	(10.6)	"	
Xylenes (total)	"	2.31	---	0.0504	"	"	0.0406	2.07	110%	(81-122)	5.47%	(11.4)	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery: 87.2%*			*Limits: 20.2-131%*	"							*09/28/06 02:19*	

Amended Report

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Amended Report

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12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Diesel Range Organics (C10-C25) per AK102 with Silica Gel Cleanup - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090100 **Soil Preparation Method: EPA 3545**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6090100-BLK1)							Extracted: 09/25/06 11:42							
Diesel Range Organics	AK 102	ND	---	50.0	mg/kg wet	2x	--	--	--	--	--	--	09/26/06 15:59	R-01
Surrogate(s): 1-Chlorooctadecane		*Recovery: 115%*			*Limits: 50-150%*	"							*09/26/06 15:59*	
LCS (6090100-BS1)							Extracted: 09/25/06 11:42							
Diesel Range Organics	AK 102	111	---	50.0	mg/kg wet	2x	--	126	88.1%	(75-125)	--	--	09/26/06 15:27	R-01
Surrogate(s): 1-Chlorooctadecane		*Recovery: 110%*			*Limits: 50-150%*	"							*09/26/06 15:27*	
LCS Dup (6090100-BSD1)							Extracted: 09/25/06 11:42							
Diesel Range Organics	AK 102	114	---	50.0	mg/kg wet	2x	--	126	90.5%	(75-125)	2.67%	(20)	09/26/06 14:55	R-01
Surrogate(s): 1-Chlorooctadecane		*Recovery: 105%*			*Limits: 50-150%*	"							*09/26/06 14:55*	
Duplicate (6090100-DUP1)					QC Source: API0078-01		Extracted: 09/25/06 11:42							
Diesel Range Organics	AK 102	1960	---	131	mg/kg dry	2x	1930	--	--	--	1.54%	(20)	09/26/06 14:55	R-01
Surrogate(s): 1-Chlorooctadecane		*Recovery: 101%*			*Limits: 50-150%*	"							*09/26/06 14:55*	
Matrix Spike (6090100-MS1)					QC Source: API0078-01		Extracted: 09/25/06 11:42							
Diesel Range Organics	AK 102	1820	---	131	mg/kg dry	2x	1930	324	-34.0%	(75-125)	--	--	09/26/06 15:59	MS-2, R-01, M4
Surrogate(s): 1-Chlorooctadecane		*Recovery: 100%*			*Limits: 50-150%*	"							*09/26/06 15:59*	
Matrix Spike Dup (6090100-MSD1)					QC Source: API0078-01		Extracted: 09/25/06 11:42							
Diesel Range Organics	AK 102	2360	---	131	mg/kg dry	2x	1930	330	130%	(75-125)	25.8%	(25)	09/26/06 16:32	MS-3, R-01, M4
Surrogate(s): 1-Chlorooctadecane		*Recovery: 113%*			*Limits: 50-150%*	"							*09/26/06 16:32*	

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090101 **Soil Preparation Method: *** DEFAULT PREP**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (6090101-DUP1)					**QC Source: AP10078-02**				**Extracted: 09/25/06 11:46**					
Dry Weight	TA-SOP	36.7	---	1.00	%	1x	39.3	--	--	--	6.84%	(25)	09/26/06 07:12	

Amended Report

Rachel J James For Jennifer L. Poppe, Chemist I

TestAmerica
ANALYTICAL TESTING CORPORATION

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210

Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 6091254 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6091254-BLK1)								Extracted: 09/29/06 12:30						
Acenaphthene	EPA 8270C	ND	---	0.330	mg/kg wet	1x	--	--	--	--	--	--	09/29/06 22:56	
Acenaphthylene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Benzoic Acid	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
Benzyl alcohol	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
4-Bromophenyl phenyl ether	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Butyl benzyl phthalate	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
4-Chloro-3-methylphenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
4-Chloroaniline	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Bis(2-chloroethoxy)methane	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Bis(2-chloroethyl)ether	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Bis(2-chloroisopropyl)ether	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2-Chloronaphthalene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2-Chlorophenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
4-Chlorophenyl phenyl ether	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Di-n-butyl phthalate	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
Di-n-octyl phthalate	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Dibenzofuran	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
3,3'-Dichlorobenzidine	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
2,4-Dichlorophenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Diethyl phthalate	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2,4-Dimethylphenol	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
Dimethyl phthalate	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
4,6-Dinitro-2-methylphenol	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
2,4-Dinitrophenol	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
2,4-Dinitrotoluene	"	ND	---	0.499	"	"	--	--	--	--	--	--	"	
2,6-Dinitrotoluene	"	ND	---	0.499	"	"	--	--	--	--	--	--	"	
Bis(2-ethylhexyl)phthalate	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	

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12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 6091254 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6091254-BLK1)							Extracted: 09/29/06 12:30							
Fluorene	EPA 8270C	ND	---	0.330	mg/kg wet	1x	--	--	--	--	--	--	09/29/06 22:56	
Hexachlorobenzene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
Hexachlorocyclopentadiene	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
Hexachloroethane	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Isophorone	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2-Methylnaphthalene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2-Methylphenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
3-,4-Methylphenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2-Nitroaniline	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
3-Nitroaniline	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
4-Nitroaniline	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Nitrobenzene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2-Nitrophenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
4-Nitrophenol	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
N-Nitrosodi-n-propylamine	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
N-Nitrosodiphenylamine	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Pentachlorophenol	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Phenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	0.999	"	"	--	--	--	--	--	--	"	
2,4,5-Trichlorophenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2,4,6-Trichlorophenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 84.0%*			*Limits: 30-115%*	"							*09/29/06 22:56*	
2-Fluorophenol		*75.2%*			*25-121%*	"							"	
Nitrobenzene-d5		*84.0%*			*23-120%*	"							"	
Phenol-d6		*83.2%*			*24-113%*	"							"	
p-Terphenyl-d14		*92.0%*			*18-137%*	"							"	
2,4,6-Tribromophenol		*81.0%*			*19-122%*	"							"	

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12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 6091254 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL^A	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (6091254-BS1)							**Extracted: 09/29/06 12:30**							
Acenaphthene	EPA 8270C	1.48	---	0.325	mg/kg wet	1x	--	1.64	90.2%	(46-120)	--	--	09/29/06 21:25	
Acenaphthylene	"	1.31	---	0.325	"	"	--	"	79.9%	(52-111)	--	--	"	
Anthracene	"	1.44	---	0.325	"	"	--	"	87.8%	(69-126)	--	--	"	
Benzo (a) anthracene	"	1.53	---	0.325	"	"	--	"	93.3%	(68-130)	--	--	"	
Benzo (a) pyrene	"	1.94	---	0.325	"	"	--	"	118%	(62-156)	--	--	"	
Benzo (b) fluoranthene	"	1.95	---	0.325	"	"	--	"	119%	(64-161)	--	--	"	
Benzo (ghi) perylene	"	2.00	---	0.325	"	"	--	"	122%	(62-161)	--	--	"	
Benzo (k) fluoranthene	"	1.87	---	0.325	"	"	--	"	114%	(65-159)	--	--	"	
Benzoic Acid	"	1.19	---	0.984	"	"	--	"	72.6%	(32-122)	--	--	"	
Benzyl alcohol	"	1.24	---	0.984	"	"	--	1.31	94.7%	(44-136)	--	--	"	
4-Bromophenyl phenyl ether	"	1.53	---	0.325	"	"	--	1.64	93.3%	(66-137)	--	--	"	
Butyl benzyl phthalate	"	1.52	---	0.325	"	"	--	"	92.7%	(63-136)	--	--	"	
4-Chloro-3-methylphenol	"	1.44	---	0.325	"	"	--	"	87.8%	(36-138)	--	--	"	
4-Chloroaniline	"	1.08	---	1.97	"	"	--	1.31	82.4%	(11-118)	--	--	"	
Bis(2-chloroethoxy)methane	"	1.44	---	0.325	"	"	--	1.64	87.8%	(52-127)	--	--	"	
Bis(2-chloroethyl)ether	"	1.37	---	0.325	"	"	--	"	83.5%	(29-128)	--	--	"	
Bis(2-chloroisopropyl)ether	"	1.39	---	0.325	"	"	--	"	84.8%	(34-145)	--	--	"	
2-Chloronaphthalene	"	1.50	---	0.325	"	"	--	"	91.5%	(53-120)	--	--	"	
2-Chlorophenol	"	1.41	---	0.325	"	"	--	"	86.0%	(18-137)	--	--	"	
4-Chlorophenyl phenyl ether	"	1.77	---	0.325	"	"	--	"	108%	(54-143)	--	--	"	
Chrysene	"	1.52	---	0.325	"	"	--	"	92.7%	(67-131)	--	--	"	
Di-n-butyl phthalate	"	1.55	---	0.984	"	"	--	"	94.5%	(69-140)	--	--	"	
Di-n-octyl phthalate	"	2.24	---	0.325	"	"	--	"	137%	(61-196)	--	--	"	
Dibenzo (a,h) anthracene	"	2.07	---	0.325	"	"	--	"	126%	(66-158)	--	--	"	
Dibenzofuran	"	1.30	---	0.325	"	"	--	1.31	99.2%	(53-139)	--	--	"	
1,2-Dichlorobenzene	"	1.42	---	0.984	"	"	--	1.64	86.6%	(26-137)	--	--	"	
1,3-Dichlorobenzene	"	1.41	---	0.984	"	"	--	"	86.0%	(23-139)	--	--	"	
1,4-Dichlorobenzene	"	1.41	---	0.984	"	"	--	"	86.0%	(7-135)	--	--	"	
3,3'-Dichlorobenzidine	"	1.34	---	0.984	"	"	--	1.31	102%	(28-150)	--	--	"	
2,4-Dichlorophenol	"	1.44	---	0.325	"	"	--	1.64	87.8%	(53-139)	--	--	"	
Diethyl phthalate	"	1.58	---	0.325	"	"	--	"	96.3%	(68-136)	--	--	"	
2,4-Dimethylphenol	"	1.30	---	0.984	"	"	--	"	79.3%	(45-127)	--	--	"	
Dimethyl phthalate	"	1.48	---	0.325	"	"	--	"	90.2%	(63-131)	--	--	"	
4,6-Dinitro-2-methylphenol	"	1.03	---	0.984	"	"	--	"	62.8%	(26-122)	--	--	"	
2,4-Dinitrophenol	"	0.616	---	1.97	"	"	--	"	37.6%	(1-104)	--	--	"	
2,4-Dinitrotoluene	"	1.48	---	0.492	"	"	--	"	90.2%	(49-125)	--	--	"	
2,6-Dinitrotoluene	"	1.55	---	0.492	"	"	--	"	94.5%	(58-132)	--	--	"	
Bis(2-ethylhexyl)phthalate	"	1.60	---	1.97	"	"	--	"	97.6%	(60-150)	--	--	"	
Fluoranthene	"	1.49	---	0.325	"	"	--	"	90.9%	(72-128)	--	--	"	

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12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 6091254 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (6091254-BS1)							**Extracted: 09/29/06 12:30**							
Fluorene	EPA 8270C	1.70	---	0.325	mg/kg wet	1x	--	1.64	104%	(54-142)	--	--	09/29/06 21:25	
Hexachlorobenzene	"	1.53	---	0.325	"	"	--	"	93.3%	(65-131)	--	--	"	
Hexachlorobutadiene	"	1.50	---	0.984	"	"	--	"	91.5%	(40-142)	--	--	"	
Hexachlorocyclopentadiene	"	1.07	---	0.984	"	"	--	"	65.2%	(38-109)	--	--	"	
Hexachloroethane	"	1.46	---	0.984	"	"	--	"	89.0%	(25-135)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	2.07	---	0.325	"	"	--	"	126%	(67-160)	--	--	"	
Isophorone	"	1.34	---	0.325	"	"	--	"	81.7%	(52-117)	--	--	"	
2-Methylnaphthalene	"	1.25	---	0.325	"	"	--	1.31	95.4%	(40-138)	--	--	"	
2-Methylphenol	"	1.41	---	0.325	"	"	--	1.64	86.0%	(42-135)	--	--	"	
3-,4-Methylphenol	"	1.41	---	0.325	"	"	--	"	86.0%	(45-139)	--	--	"	
Naphthalene	"	1.42	---	0.325	"	"	--	"	86.6%	(43-128)	--	--	"	
2-Nitroaniline	"	1.32	---	0.325	"	"	--	1.31	101%	(51-136)	--	--	"	
3-Nitroaniline	"	1.12	---	0.984	"	"	--	"	85.5%	(16-120)	--	--	"	
4-Nitroaniline	"	1.30	---	0.325	"	"	--	"	99.2%	(47-133)	--	--	"	
Nitrobenzene	"	1.38	---	0.325	"	"	--	1.64	84.1%	(40-125)	--	--	"	
2-Nitrophenol	"	1.38	---	0.325	"	"	--	"	84.1%	(45-133)	--	--	"	
4-Nitrophenol	"	1.50	---	0.984	"	"	--	"	91.5%	(40-148)	--	--	"	
N-Nitrosodi-n-propylamine	"	1.40	---	0.325	"	"	--	"	85.4%	(20-138)	--	--	"	
N-Nitrosodiphenylamine	"	1.52	---	0.325	"	"	--	"	92.7%	(63-127)	--	--	"	
Pentachlorophenol	"	1.51	---	0.984	"	"	--	"	92.1%	(22-129)	--	--	"	
Phenanthrene	"	1.50	---	0.325	"	"	--	"	91.5%	(67-128)	--	--	"	
Phenol	"	1.30	---	0.325	"	"	--	"	79.3%	(37-122)	--	--	"	
Pyrene	"	1.53	---	0.325	"	"	--	"	93.3%	(26-143)	--	--	"	
1,2,4-Trichlorobenzene	"	1.44	---	0.984	"	"	--	"	87.8%	(25-129)	--	--	"	
2,4,5-Trichlorophenol	"	1.52	---	0.325	"	"	--	"	92.7%	(55-145)	--	--	"	
2,4,6-Trichlorophenol	"	1.47	---	0.325	"	"	--	"	89.6%	(52-139)	--	--	"	
Surrogate(s):	*2-Fluorobiphenyl*	*Recovery:*	*88.6%*	*Limits:*	*30-115%*	"							*09/29/06 21:25*	
	2-Fluorophenol		*72.0%*		*25-121%*	"							"	
	Nitrobenzene-d5		*85.8%*		*23-120%*	"							"	
	Phenol-d6		*77.2%*		*24-113%*	"							"	
	p-Terphenyl-d14		*93.1%*		*18-137%*	"							"	
	2,4,6-Tribromophenol		*85.6%*		*19-122%*	"							"	

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TestAmerica - Portland, OR

QC Batch: 6091254 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (6091254-MS1)					QC Source: AP10078-05			Extracted: 09/29/06 12:30						R-05
Acenaphthene	EPA 8270C	19.1	---	7.44	mg/kg dry	4x	14.4	4.70	100%	(26-150)	--	--	09/30/06 01:12	
Acenaphthylene	"	4.00	---	7.44	"	"	ND	"	85.1%	(32-141)	--	--	"	
Anthracene	"	7.15	---	7.44	"	"	3.28	"	82.3%	(49-150)	--	--	"	
Benzo (a) anthracene	"	6.68	---	7.44	"	"	2.22	"	94.9%	(48-150)	--	--	"	
Benzo (a) pyrene	"	4.86	---	7.44	"	"	ND	"	103%	(42-175)	--	--	"	
Benzo (b) fluoranthene	"	4.64	---	7.44	"	"	ND	"	98.7%	(44-175)	--	--	"	
Benzo (ghi) perylene	"	2.89	---	7.44	"	"	ND	"	61.5%	(42-175)	--	--	"	
Benzo (k) fluoranthene	"	5.16	---	7.44	"	"	ND	"	110%	(45-175)	--	--	"	
Benzoic Acid	"	3.98	---	22.5	"	"	ND	"	84.7%	(1-150)	--	--	"	
Benzyl alcohol	"	3.66	---	22.5	"	"	ND	3.76	97.3%	(7-150)	--	--	"	
4-Bromophenyl phenyl ether	"	4.61	---	7.44	"	"	ND	4.70	98.1%	(54-150)	--	--	"	
Butyl benzyl phthalate	"	4.23	---	7.44	"	"	ND	"	90.0%	(43-150)	--	--	"	
4-Chloro-3-methylphenol	"	4.52	---	7.44	"	"	ND	"	96.2%	(26-150)	--	--	"	
4-Chloroaniline	"	ND	---	45.1	"	"	ND	3.76	NR	(1-138)	--	--	"	Q-08
Bis(2-chloroethoxy)methane	"	4.77	---	7.44	"	"	ND	4.70	101%	(32-150)	--	--	"	
Bis(2-chloroethyl)ether	"	3.08	---	7.44	"	"	ND	"	65.5%	(19-150)	--	--	"	
Bis(2-chloroisopropyl)ether	"	3.46	---	7.44	"	"	ND	"	73.6%	(14-175)	--	--	"	
2-Chloronaphthalene	"	4.23	---	7.44	"	"	ND	"	90.0%	(38-150)	--	--	"	
2-Chlorophenol	"	3.84	---	7.44	"	"	ND	"	81.7%	(8-150)	--	--	"	
4-Chlorophenyl phenyl ether	"	1.86	---	7.44	"	"	ND	"	39.6%	(44-175)	--	--	"	Q-01
Chrysene	"	6.52	---	7.44	"	"	2.32	"	89.4%	(47-150)	--	--	"	
Di-n-butyl phthalate	"	4.58	---	22.5	"	"	ND	"	97.4%	(49-175)	--	--	"	
Di-n-octyl phthalate	"	4.09	---	7.44	"	"	ND	"	87.0%	(41-200)	--	--	"	
Dibenzo (a,h) anthracene	"	3.67	---	7.44	"	"	ND	"	78.1%	(45-175)	--	--	"	
Dibenzofuran	"	12.3	---	7.44	"	"	8.97	3.76	88.6%	(33-150)	--	--	"	
1,2-Dichlorobenzene	"	3.13	---	22.5	"	"	ND	4.70	66.6%	(23-150)	--	--	"	
1,3-Dichlorobenzene	"	2.99	---	22.5	"	"	ND	"	63.6%	(17-150)	--	--	"	
1,4-Dichlorobenzene	"	2.99	---	22.5	"	"	ND	"	63.6%	(4-150)	--	--	"	
3,3'-Dichlorobenzidine	"	ND	---	22.5	"	"	ND	3.76	NR	(1-175)	--	--	"	Q-01
2,4-Dichlorophenol	"	4.39	---	7.44	"	"	ND	4.70	93.4%	(40-150)	--	--	"	
Diethyl phthalate	"	4.29	---	7.44	"	"	ND	"	91.3%	(48-150)	--	--	"	
2,4-Dimethylphenol	"	4.93	---	22.5	"	"	ND	"	105%	(40-150)	--	--	"	
Dimethyl phthalate	"	4.46	---	7.44	"	"	ND	"	94.9%	(43-150)	--	--	"	
4,6-Dinitro-2-methylphenol	"	2.86	---	22.5	"	"	ND	"	60.9%	(16-138)	--	--	"	
2,4-Dinitrophenol	"	1.82	---	45.1	"	"	ND	"	38.7%	(1-135)	--	--	"	
2,4-Dinitrotoluene	"	4.05	---	11.3	"	"	ND	"	86.2%	(32-150)	--	--	"	
2,6-Dinitrotoluene	"	3.67	---	11.3	"	"	ND	"	78.1%	(35-150)	--	--	"	
Bis(2-ethylhexyl)phthalate	"	4.70	---	45.1	"	"	ND	"	100%	(40-175)	--	--	"	
Fluoranthene	"	17.8	---	7.44	"	"	14.7	"	66.0%	(53-150)	--	--	"	

Amended Report

Rachel J James For Jennifer L. Poppe, Chemist I

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 6091254 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (6091254-MS1)					QC Source: API0078-05				Extracted: 09/29/06 12:30					R-05
Fluorene	EPA 8270C	13.4	---	7.44	mg/kg dry	4x	8.04	4.70	114%	(34-175)	--	--	09/30/06 01:12	
Hexachlorobenzene	"	4.61	---	7.44	"	"	ND	"	98.1%	(40-150)	--	--	"	
Hexachlorobutadiene	"	3.99	---	22.5	"	"	ND	"	84.9%	(20-175)	--	--	"	
Hexachlorocyclopentadiene	"	ND	---	22.5	"	"	ND	"	NR	(6-149)	--	--	"	Q-08
Hexachloroethane	"	3.01	---	22.5	"	"	ND	"	64.0%	(15-150)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	3.66	---	7.44	"	"	ND	"	77.9%	(40-175)	--	--	"	
Isophorone	"	4.28	---	7.44	"	"	ND	"	91.1%	(31-137)	--	--	"	
2-Methylnaphthalene	"	6.30	---	7.44	"	"	2.31	3.76	106%	(20-150)	--	--	"	
2-Methylphenol	"	4.16	---	7.44	"	"	ND	4.70	88.5%	(28-150)	--	--	"	
3-,4-Methylphenol	"	4.34	---	7.44	"	"	ND	"	92.3%	(35-150)	--	--	"	
Naphthalene	"	6.43	---	7.44	"	"	2.41	"	85.5%	(33-150)	--	--	"	
2-Nitroaniline	"	4.34	---	7.44	"	"	ND	3.76	115%	(41-150)	--	--	"	
3-Nitroaniline	"	1.38	---	22.5	"	"	ND	"	36.7%	(6-150)	--	--	"	
4-Nitroaniline	"	2.02	---	7.44	"	"	ND	"	53.7%	(27-150)	--	--	"	
Nitrobenzene	"	4.02	---	7.44	"	"	ND	4.70	85.5%	(20-150)	--	--	"	
2-Nitrophenol	"	4.41	---	7.44	"	"	ND	"	93.8%	(26-150)	--	--	"	
4-Nitrophenol	"	6.16	---	22.5	"	"	ND	"	131%	(20-175)	--	--	"	
N-Nitrosodi-n-propylamine	"	3.87	---	7.44	"	"	ND	"	82.3%	(10-150)	--	--	"	
N-Nitrosodiphenylamine	"	7.09	---	7.44	"	"	ND	"	151%	(43-150)	--	--	"	Q-01
Pentachlorophenol	"	9.23	---	22.5	"	"	ND	"	196%	(12-150)	--	--	"	Q-01
Phenanthrene	"	19.4	---	7.44	"	"	17.6	"	38.3%	(47-150)	--	--	"	Q-01
Phenol	"	1.87	---	7.44	"	"	ND	"	39.8%	(17-150)	--	--	"	
Pyrene	"	12.9	---	7.44	"	"	9.93	"	63.2%	(16-175)	--	--	"	
1,2,4-Trichlorobenzene	"	4.09	---	22.5	"	"	ND	"	87.0%	(18-150)	--	--	"	
2,4,5-Trichlorophenol	"	4.70	---	7.44	"	"	ND	"	100%	(46-150)	--	--	"	
2,4,6-Trichlorophenol	"	4.76	---	7.44	"	"	ND	"	101%	(54-150)	--	--	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 95.3%*			*Limits: 30-115%*	"							*09/30/06 01:12*	
2-Fluorophenol		*75.9%*			*25-121%*	"							"	
Nitrobenzene-d5		*87.7%*			*23-120%*	"							"	
Phenol-d6		*90.8%*			*24-113%*	"							"	
p-Terphenyl-d14		*92.3%*			*18-137%*	"							"	
2,4,6-Tribromophenol		*95.0%*			*19-122%*	"							"	

Amended Report

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 6091254 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL^A	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (6091254-MSD1)				QC Source: API0078-05				Extracted: 09/29/06 12:30						R-05
Acenaphthene	EPA 8270C	19.6	---	7.52	mg/kg dry	4x	14.4	4.75	109%	(26-150)	2.58%	(60)	09/30/06 01:58	
Acenaphthylene	"	4.56	---	7.52	"	"	ND	"	96.0%	(32-141)	13.1%	"	"	
Anthracene	"	7.64	---	7.52	"	"	3.28	"	91.8%	(49-150)	6.63%	"	"	
Benzo (a) anthracene	"	7.10	---	7.52	"	"	2.22	"	103%	(48-150)	6.10%	"	"	
Benzo (a) pyrene	"	5.26	---	7.52	"	"	ND	"	111%	(42-175)	7.91%	"	"	
Benzo (b) fluoranthene	"	5.33	---	7.52	"	"	ND	"	112%	(44-175)	13.8%	"	"	
Benzo (ghi) perylene	"	2.96	---	7.52	"	"	ND	"	62.3%	(42-175)	2.39%	"	"	
Benzo (k) fluoranthene	"	5.36	---	7.52	"	"	ND	"	113%	(45-175)	3.80%	"	"	
Benzoic Acid	"	3.99	---	22.8	"	"	ND	"	84.0%	(1-150)	0.251%	"	"	
Benzyl alcohol	"	3.97	---	22.8	"	"	ND	3.80	104%	(7-150)	8.13%	"	"	
4-Bromophenyl phenyl ether	"	4.93	---	7.52	"	"	ND	4.75	104%	(54-150)	6.71%	"	"	
Butyl benzyl phthalate	"	4.28	---	7.52	"	"	ND	"	90.1%	(43-150)	1.18%	"	"	
4-Chloro-3-methylphenol	"	4.81	---	7.52	"	"	ND	"	101%	(26-150)	6.22%	"	"	
4-Chloroaniline	"	ND	---	45.6	"	"	ND	3.80	NR	(1-138)		"	"	Q-08
Bis(2-chloroethoxy)methane	"	4.89	---	7.52	"	"	ND	4.75	103%	(32-150)	2.48%	"	"	
Bis(2-chloroethyl)ether	"	3.48	---	7.52	"	"	ND	"	73.3%	(19-150)	12.2%	"	"	
Bis(2-chloroisopropyl)ether	"	3.93	---	7.52	"	"	ND	"	82.7%	(14-175)	12.7%	"	"	
2-Chloronaphthalene	"	4.70	---	7.52	"	"	ND	"	98.9%	(38-150)	10.5%	"	"	
2-Chlorophenol	"	4.48	---	7.52	"	"	ND	"	94.3%	(8-150)	15.4%	"	"	
4-Chlorophenyl phenyl ether	"	2.32	---	7.52	"	"	ND	"	48.8%	(44-175)	--	"	"	
Chrysene	"	7.05	---	7.52	"	"	2.32	"	99.6%	(47-150)	7.81%	"	"	
Di-n-butyl phthalate	"	4.75	---	22.8	"	"	ND	"	100%	(49-175)	3.64%	"	"	
Di-n-octyl phthalate	"	4.59	---	7.52	"	"	ND	"	96.6%	(41-200)	11.5%	"	"	
Dibenzo (a,h) anthracene	"	3.70	---	7.52	"	"	ND	"	77.9%	(45-175)	0.814%	"	"	
Dibenzofuran	"	13.2	---	7.52	"	"	8.97	3.80	111%	(33-150)	7.06%	"	"	
1,2-Dichlorobenzene	"	3.72	---	22.8	"	"	ND	4.75	78.3%	(23-150)	17.2%	"	"	
1,3-Dichlorobenzene	"	3.55	---	22.8	"	"	ND	"	74.7%	(17-150)	17.1%	"	"	
1,4-Dichlorobenzene	"	3.63	---	22.8	"	"	ND	"	76.4%	(4-150)	19.3%	"	"	
3,3'-Dichlorobenzidine	"	ND	---	22.8	"	"	ND	3.80	NR	(1-175)		"	"	Q-01
2,4-Dichlorophenol	"	4.92	---	7.52	"	"	ND	4.75	104%	(40-150)	11.4%	"	"	
Diethyl phthalate	"	4.78	---	7.52	"	"	ND	"	101%	(48-150)	10.8%	"	"	
2,4-Dimethylphenol	"	5.51	---	22.8	"	"	ND	"	116%	(40-150)	11.1%	"	"	
Dimethyl phthalate	"	4.73	---	7.52	"	"	ND	"	99.6%	(43-150)	5.88%	"	"	
4,6-Dinitro-2-methylphenol	"	3.82	---	22.8	"	"	ND	"	80.4%	(16-138)	28.7%	"	"	
2,4-Dinitrophenol	"	2.09	---	45.6	"	"	ND	"	44.0%	(1-135)	13.8%	"	"	
2,4-Dinitrotoluene	"	4.23	---	11.4	"	"	ND	"	89.1%	(32-150)	4.35%	"	"	
2,6-Dinitrotoluene	"	4.93	---	11.4	"	"	ND	"	104%	(35-150)	29.3%	"	"	
Bis(2-ethylhexyl)phthalate	"	4.93	---	45.6	"	"	ND	"	104%	(40-175)	4.78%	"	"	
Fluoranthene	"	18.4	---	7.52	"	"	14.7	"	77.9%	(53-150)	3.31%	"	"	

Amended Report

Rachel J James For Jennifer L. Poppe, Chemist I

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP 00923 05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 6091254 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (6091254-MSD1)					QC Source: API0078-05				Extracted: 09/29/06 12:30					R-05
Fluorene	EPA 8270C	14.3	---	7.52	mg/kg dry	4x	8.04	4.75	132%	(34-175)	6.50%	(60)	09/30/06 01:58	
Hexachlorobenzene	"	4.94	---	7.52	"	"	ND	"	104%	(40-150)	6.91%	"	"	
Hexachlorobutadiene	"	4.30	---	22.8	"	"	ND	"	90.5%	(20-175)	7.48%	"	"	
Hexachlorocyclopentadiene	"	ND	---	22.8	"	"	ND	"	NR	(6-149)		"	"	Q-08
Hexachloroethane	"	3.63	---	22.8	"	"	ND	"	76.4%	(15-150)	18.7%	"	"	
Indeno (1,2,3-cd) pyrene	"	3.78	---	7.52	"	"	ND	"	79.6%	(40-175)	3.23%	"	"	
Isophorone	"	4.23	---	7.52	"	"	ND	"	89.1%	(31-137)	1.18%	"	"	
2-Methylnaphthalene	"	6.51	---	7.52	"	"	2.31	3.80	111%	(20-150)	3.28%	"	"	
2-Methylphenol	"	4.66	---	7.52	"	"	ND	4.75	98.1%	(28-150)	11.3%	"	"	
3-,4-Methylphenol	"	4.97	---	7.52	"	"	ND	"	105%	(35-150)	13.5%	"	"	
Naphthalene	"	6.55	---	7.52	"	"	2.41	"	87.2%	(33-150)	1.85%	"	"	
2-Nitroaniline	"	4.49	---	7.52	"	"	ND	3.80	118%	(41-150)	3.40%	"	"	
3-Nitroaniline	"	1.91	---	22.8	"	"	ND	"	50.3%	(6-150)	32.2%	"	"	
4-Nitroaniline	"	3.71	---	7.52	"	"	ND	"	97.6%	(27-150)	59.0%	"	"	
Nitrobenzene	"	4.37	---	7.52	"	"	ND	4.75	92.0%	(20-150)	8.34%	"	"	
2-Nitrophenol	"	4.81	---	7.52	"	"	ND	"	101%	(26-150)	8.68%	"	"	
4-Nitrophenol	"	7.14	---	22.8	"	"	ND	"	150%	(20-175)	14.7%	"	"	
N-Nitrosodi-n-propylamine	"	4.27	---	7.52	"	"	ND	"	89.9%	(10-150)	9.83%	"	"	
N-Nitrosodiphenylamine	"	7.59	---	7.52	"	"	ND	"	160%	(43-150)	6.81%	"	"	Q-01
Pentachlorophenol	"	9.64	---	22.8	"	"	ND	"	203%	(12-150)	4.35%	"	"	Q-01
Phenanthrene	"	20.1	---	7.52	"	"	17.6	"	52.6%	(47-150)	3.54%	"	"	
Phenol	"	2.41	---	7.52	"	"	ND	"	50.7%	(17-150)	25.2%	"	"	
Pyrene	"	12.6	---	7.52	"	"	9.93	"	56.2%	(16-175)	2.35%	"	"	
1,2,4-Trichlorobenzene	"	4.42	---	22.8	"	"	ND	"	93.1%	(18-150)	7.76%	"	"	
2,4,5-Trichlorophenol	"	5.10	---	7.52	"	"	ND	"	107%	(46-150)	8.16%	"	"	
2,4,6-Trichlorophenol	"	5.55	---	7.52	"	"	ND	"	117%	(54-150)	15.3%	"	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 107%*			*Limits: 30-115%*	"							*09/30/06 01:58*	
2-Fluorophenol		*83.8%*			*25-121%*	"							"	
Nitrobenzene-d5		*96.6%*			*23-120%*	"							"	
Phenol-d6		*96.5%*			*24-113%*	"							"	
p-Terphenyl-d14		*92.0%*			*18-137%*	"							"	
2,4,6-Tribromophenol		*101%*			*19-122%*	"							"	

Amended Report

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 6090951 **Other wet Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (6090951-DUP1)					**QC Source: PP10937-01**				**Extracted: 09/23/06 10:22**					
% Solids	NCA SOP	69.2	---	0.00	% by Weight	1x	74.2	--	--	--	6.97%	(20)	09/23/06 10:22	

Amended Report

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Conventional Chemistry Parameters by APHA/EPA Methods - Laboratory Quality Control Results

TestAmerica - Seattle, WA

QC Batch: 6J06056 **Soil Preparation Method: General Preparation**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6J06056-BLK1)							Extracted: 10/06/06 16:59							
Total Organic Carbon	EPA 9060 mod.	ND	---	1000	mg/kg wet	1x	--	--	--	--	--	--	10/06/06 16:59	
LCS (6J06056-BS1)							Extracted: 09/13/06 18:10							
Total Organic Carbon	EPA 9060 mod	30200	---	1000	mg/kg wet	1x	--	29900	101%	(72-130)	--	--	10/06/06 17:07	
Duplicate (6J06056-DUP1)			QC Source: BPI0290-03				Extracted: 10/05/06 18:10							
Total Organic Carbon	EPA 9060 mod	1120	---	1040	mg/kg dry	1x	1740	--	--	--	43.4%	(35)	10/06/06 17:20	Q-14
Duplicate (6J06056-DUP2)			QC Source: BPI0764-01				Extracted: 10/03/06 18:10							
Total Organic Carbon	EPA 9060 mod	147000	---	2290	mg/kg dry	1x	128000	--	--	--	13.8%	(35)	10/06/06 17:50	
Duplicate (6J06056-DUP3)			QC Source: API0078-01				Extracted: 10/03/06 18:10							
Total Organic Carbon	EPA 9060 mod.	245000	---	2310	mg/kg dry	1x	191000	--	--	--	24.8%	(35)	10/06/06 18:51	
Matrix Spike (6J06056-MS1)			QC Source: BPI0290-03				Extracted: 10/05/06 18:10							
Total Organic Carbon	EPA 9060 mod	2840	---	1040	mg/kg dry	1x	1740	2540	43.3%	(40-160)	--	--	10/06/06 17:28	

TestAmerica
ANALYTICAL TESTING CORPORATION

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210

Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results

TestAmerica - Seattle, WA

QC Batch: 6J09049 **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6J09049-BLK1)								**Extracted: 10/09/06 18:00**						
Dry Weight	BSOPSPL00 3R08	100	---	1.00	%	1x	--	--	--	--	--	--	10/10/06 00:00	

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Amended Report

SECOR - Redmond, WA	Project Name:	**Petersburg**	
12034 134th Count NE, Suite 102	Project Number:	01CP.00923.05	Report Created:
Redmond, WA 98052	Project Manager:	Katelin Hanson	01/12/07 11:42

Notes and Definitions

Report Specific Notes:

M4	-	The sample required a dilution due to matrix interference. Because of this dilution, the matrix spike concentrations in the sample were reduced to a level where the recovery calculation does not provide useful information. See Blank Spike (LCS).
MS-2	-	The Matrix Spike and/or Matrix Spike Duplicate were below the acceptance limits due to sample matrix interference. See Laboratory Control Sample.
MS-3	-	The Matrix Spike and/or Matrix Spike Duplicate were above the acceptance limits due to sample matrix interference. See Laboratory Control Sample.
Q-01	-	The matrix spike recovery, and/or RPD, for this QC sample is outside of established control limits. Failure of a matrix spike QC sample does not represent an out-of-control condition for the batch.
Q-08	-	Unable to quantify spike recovery due to matrix interference and/or dilution necessary for analysis.
Q-14	-	Visual examination indicates the RPD and/or matrix spike recovery is outside the control limit due to a non-homogeneous sample matrix.
R-01	-	Reporting limit raised due to dilution necessary for analysis.
R-05	-	Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.

Laboratory Reporting Conventions:

DET	-	Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
ND	-	Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
NR/NA	-	Not Reported / Not Available
dry	-	Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
wet	-	Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
RPD	-	RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
MRL	-	METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
MDL*	-	METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
Dil	-	Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
Reporting Limits	-	Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
Electronic Signature	-	Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Amended Report

Rachel J James For Jennifer L. Poppe, Chemist I

TestAmerica
ANALYTICAL TESTING CORPORATION

*Please fax to me signed copies of chain to 425-372-1666
3 coolers total

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 · 425-420-9200 · FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 · 509-924-9200 · FAX 924-9290
9405 SW Nimbus Ave, Beaverton, OR 97008-7145 · 503-906-9200 · FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 · 907-563-9200 · FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: API0078

CLIENT: SECOR International

REPORT TO: Marc Souza (msouza@secor.com) Katlin Hanson (khansen@secor.com)

ADDRESS: 12034 134th Court NE; Suite 102 Redmond, WA 98052

PHONE: 425-372-1600 FAX: 425-372-1666

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: 0923 Petersburg Alaska

PROJECT NUMBER: 01CP.00923.05

SAMPLED BY: Katlin Hanson

PRESERVATIVE: methanol, methanol, none, none, none

TURNAROUND REQUEST in Business Days*
Organic & Inorganic Analyses: ~~10~~ 7 5 4 3 2 1 <1
Petroleum Hydrocarbon Analyses: ~~5~~ 4 3 2 1 <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

REQUESTED ANALYSES

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	GRO	BTEX	DRO (w/ silica gel cleanup)	PAHs (8270)	TOC (9060M)	MATRIX (W, S, O)	# OF CONT.	LOCATION/COMMENTS	TA WO ID
BL-TP-1	9/18/06 1145			X		X	S	4		
BL-TP-2	9/18/06 1215	X	X	X	X	X	S	4		
BP-TP-3	9/18/06 1300			X		X	S	4		
BL-TP-4	9/18/06 1345			X		X	S	4		
BL-TP-5	9/18/06 1420	X	X	X	X	X	S	4		
BL-TP-6	9/18/06 1450			X		X	S	4		
TSP-1	9/19/06 0940			X			S	3		
TSP-2	9/19/06 1005			X	X	X	S	3		
TSP-3	9/19/06 1035			X	~~X~~	~~X~~	S	3		
TSP-4	9/19/06 1050			X	VH		S	3		

RELEASED BY: Katlin Hanson
PRINT NAME: Katlin Hanson FIRM: SECOR International DATE: TIME:
RECEIVED BY: [signature]
PRINT NAME: [illegible] FIRM: TA-AK DATE: [illegible] TIME: 0928
RELEASED BY:
PRINT NAME: FIRM: DATE: TIME:
RECEIVED BY:
PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS: DRO with silica gel cleanup

TEMP: 3.5 PAGE 1 OF 2

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and for any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice unless otherwise contracted. Sample(s) will be disposed of after 30 days unless otherwise contracted.

TestAmerica
ANALYTICAL TESTING CORPORATION

* Please fax to me signed copies of chains to 425-372-1666

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave, Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

3 Coolers total

Work Order #: BPI0048

CLIENT: SECOR International

REPORT TO: Marc Sauze (msauze@secor.com)
ADDRESS: Katlin Hanson (khanson@secor.com)
12034 134th Court NE, Suite 102
Redmond, WA 98052
PHONE: 425-372-1600 FAX: 425-372-1666

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: 0923 Petersburg Harbor
PROJECT NUMBER: 01CP.00923.05
SAMPLED BY: Katlin Hanson

TURNAROUND REQUEST in Business Days*
Organic & Inorganic Analyses: [X] STD, 7, 5, 4, 3, 2, 1, <1
Petroleum Hydrocarbon Analyses: [X] STD, 4, 3, 2, 1, <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE: None, None, None

REQUESTED ANALYSES: DRO (with silica gel cleanup); PAH's (8270); TOC (9060M)

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	DRO	PAH's (8270)	TOC (9060M)	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	TA WO ID
1 TSP-5	9/19/06 1135	X			S	3		
2								
3								
4								
5								
6								
7								
8								
9								
10								

RELEASED BY: PRINT NAME: FIRM: DATE: TIME:
RECEIVED BY: [signature] PRINT NAME: [illegible] FIRM: TA-AL DATE: [illegible] TIME: 1925
RELEASED BY: PRINT NAME: FIRM: DATE: TIME:
RECEIVED BY: PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS: DRO with silica gel cleanup

TEMP: 2.5/[illegible] PAGE 2 OF 2

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and for any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice unless otherwise contracted. Samples will be disposed of after 30 days unless otherwise contracted.

Test America Cooler Receipt Form

WORK ORDER # [illegible] CLIENT: [illegible] PROJECT: [illegible]

Date/Time cooler arrived: [illegible] Cooler signed for by: [illegible]
(Print name)

Preliminary Examination Phase:

[illegible]

1. [illegible] sign: [illegible]

[illegible]

Shipment Tracking # if applicable: 1464 1174 (include copy of shipping papers in file)

2. Number of Custody Seals: 2 Signed by: [illegible] Date: [illegible]

Were custody seals unbroken and intact on arrival? ☑ Yes ☐ No

3. Were custody papers sealed in a plastic bag? ☒ Yes ☐ No

4. Were custody papers filled out properly (ink, signed, etc.)? ☒ Yes ☐ No

5. Did you sign the custody papers in the appropriate place? ☒ Yes ☐ No

6. Was ice used? ☒ Yes ☐ No Type of ice: ☐ blue ice ☒ gel ice ☐ real ice ☐ dry ice Condition of Ice: Soft

Temperature by Digi-Thermo Probe [illegible] °C Thermometer # [illegible]

7. Packing in Cooler: ☐ bubble wrap ☒ styrofoam ☐ cardboard ☐ Other: ____

8. Did samples arrive in plastic bags? ☐ Yes ☒ No

9. Did all bottles arrive unbroken, and with labels in good condition? ☒ Yes ☐ No

10. Are all bottle labels complete (ID, date, time, etc.)? ☒ Yes ☐ No

11. Do bottle labels and Chain of Custody agree? ☒ Yes ☐ No

12. Are the containers and preservatives correct for the tests indicated? ☒ Yes ☐ No

13. Is there adequate volume for the tests requested? ☒ Yes ☐ No

14. Were VOA vials free of bubbles? ☒ N/A ☐ Yes ☐ No

If "NO" which containers contained "head space" or bubbles? ____

Log-in Phase:

Date of sample log-in: [illegible]

Samples logged in by (print): [illegible] (sign): [illegible]

1. [illegible] ☒ Yes ☐ No

2. [illegible] ☒ Yes ☐ No

3. [illegible] ☒ Yes ☐ No

4. [illegible] ☒ Yes ☐ No

5. [illegible] ☒ Yes ☐ No

Cooler # 2
Blue

Test America Cooler Receipt Form

WORK ORDER = [illegible] CLIENT: [illegible] PROJECT: [illegible]

[illegible] Received by: [illegible]

Preliminary Examination Phase:

[illegible] X [illegible]

[illegible] Log-in: [illegible]

[illegible] Courier: [illegible] UPS: [illegible] Client: [illegible] Other: [illegible]

Shipping Container(s) used, if applicable: [illegible]

1. Number of Custody Seals: [illegible] Signed by: [illegible] Date: [illegible]
2. Were custody seals unbroken and intact on arrival? ☑ Yes ☐ No
3. Were custody papers sealed in a plastic bag? ☑ Yes ☐ No
4. Were custody papers filled out properly (ink, signed, etc.)? ☑ Yes ☐ No
5. Did you sign the custody papers in the appropriate place? ☑ Yes ☐ No
6. Was ice used? ☐ Yes ☐ No Type of ice: ☐ blue ice ☑ wet ice ☐ real ice ☐ dry ice Condition of ice: melt
   Temperature by Digi-Thermo Probe: 2.9 °C Thermometer #: [illegible]
7. Packing in Cooler: ☐ bubble wrap ☐ styrofoam ☑ cardboard ☐ Other:
8. Did samples arrive in plastic bags? ☐ Yes ☐ No
9. Did all bottles arrive unbroken, and with labels in good condition? ☑ Yes ☐ No
10. Are all bottle labels complete (ID, date, time, etc.) ☒ Yes ☐ No
11. Do bottle labels and Chain of Custody agree? ☒ Yes ☐ No
12. Are the containers and preservatives correct for the tests indicated? ☐ Yes ☐ No
13. Is there adequate volume for the tests requested? ☐ Yes ☐ No
14. Were VOA vials free of bubbles? ☑ N/A ☐ Yes ☐ No
    If "No", which containers contained "head space" or bubbles?

Log-in Phase:

Date of sample log-in: [illegible]

Samples logged in by: [illegible] Date: [illegible]

1. [illegible] ☒ Yes ☐ No
2. [illegible] ☒ Yes ☐ No
3. [illegible] ☒ Yes ☐ No
4. [illegible] ☒ Yes ☐ No
5. [illegible] ☒ Yes ☐ No

ATTACHMENT B
DMC TECHNOLOGIES, INC. TREATMENT REPORT

Biopile Treatment and Sampling
ConocoPhillips Site No. 0923
703 South Nordic Drive
Petersburg, Alaska
SECOR PN No.: 01CP.00923.05
March 5, 2007

DMC Technologies

Performance & Affordability

SEC-001

October 23, 2006

SECOR International Inc.
Marc Sauze
12034 134th Court NE
Redmond, Washington 98052
P: 425-372-1600
C: 425-503-9910
X: 425-372-1650
Email: msauze@secor.com

Subject: Treatment Report: Former Unocal Site – Petersburg

Marc:

Attached is the final treatment report for the Petersburg Unocal site.

Sincerely,

Dan McNair

Dan McNair,
President

/drm
Attachment

DMC Technologies
Performance & Affordability

SEC-001

TREATMENT REPORT

DMC Technologies, Inc. was contracted to treat contaminated soils at the former Unocal Site in Petersburg, Alaska owned by Conoco-Phillips. SECOR International represents Conoco-Phillips as environmental consultants and provided oversight of treatment activities.

Pre-Treatment Status

The waste present at the site is located in a bio-pit constructed adjacent to the abandoned tank farm. The bio-pit was originally constructed with 3" perforated piping penetrating a 9 foot deep soil mass residing upon a synthetic 20 mil bottom liner. The sides of the bio-pit were in open contact with native soils. The surface of the bio-pit was formerly covered by a 20 mil liner. The surface liner was deteriorated and partially removed by weathering. It was estimated that the approximate 850 CY of soil (50 ft. x 50 ft. x 9 ft.) in the bio-pit contained a final DRO concentration of approximately 1,500 ppm DRO and higher than acceptable limits. Treated soils in the Petersburg area have historically been assigned Method III clean-up limits due to organic interferences. Active air sparging for treatment was conducted in the bio-pit for an undetermined period of time to reduce diesel contamination.

Native soils in the area are muskeg derived and high in organic content with particularly high concentrations of peat. The native soils reside on a base of fractured scheiss (greywacke) located approximately 12 ft. BGS. The area receives over 100 inches of precipitation annually and is situated adjacent to the ocean. During the treatment period constant rain occurred.

Treatment Process

Ex-situ treatment of the contaminated soil in the bio-pit was recommended in the open area immediately adjacent to the bio-pit. System ET-20 Bioenhancement with Chemical Pentanonic was selected as the system for treating the bio-pit contaminated soils. This system has proven effective in treating water saturated organic contaminated soil and was successfully used in Petersburg at the ADNR Falls Creek Site in 2005. Treatment was performed in late July.

System ET-20 Bioenhancement incorporated an oleophillic-hydrophobic nutrient source (N1 Nutrient) and nine (9) strains of natural microbes with the inherent ability to consume petroleum hydrocarbon and depolymerize complex nutrient sources (B1 Microbes). B1 microbes were cultured on-site in a 750 gallon black plastic tank. Culturing incorporates water heating and recirculation as well as air sparging. A unique extraction procedure was deployed to also collect microbes from contaminated bio-pit soils and grown them with the B1 microbes. Combined microbes were cultured to a concentration of $1XE^9$ microbes/milliliter as determined by a vacuum colorimetric agar tube test. Microbes were acclimated to a diesel fuel food source before use. Microbes were applied at a rate of 1 gallon per CY of contaminated soil. N1 nutrient was broadcast into the soil at a rate of 2 lbs per CY of contaminated soil.

Chemical Pentanonic was pre-mixed in water at a ratio of 12 parts water and 1 part chemical. In this manner, 35 gallons of chemical were used to create a treatment solution containing 420 gallons. Approximately 1 gallon of chemical was used per each 2 CY of contaminated soil.

Soils were excavated form the bio-pit using an excavator. Soils were immediately determined to be saturated (50% water). Excavation was extremely difficult and the equipment was stuck several times. A stockpile containing 430 CY was created. Remaining soils were left in-place with the determination to treat them in-place rather than risk stranding equipment in the bio-pit. The end of the bio-pit nearest the abandoned tank farm was the most difficult to excavate and excavation was performed to only 4 feet. The end of the bio-pit nearest the road was easier to excavate and excavation was completed to approximately 8 feet. The liner was not detected during initial treatment and was expected to be present at 7-8 ft. BGS.

Biochemical agents were sprayed and hand spread onto soils excavated from the bio-pit in 12 inch layers. Mixing and aeration was accomplished using a small excavator. Biochemical agents were bulk sprayed and hand spread onto the surface of unexcavated soils remaining in the bio-pit. Mixing and aeration was then accomplished using a small excavator. Soils were turned several times to ensure adequate mixing with depth.

The ex-situ stockpile and the in-situ soils in the bio-pile were left uncovered for a period of approximately 45 days. At the conclusion of 45 days, additional characterization and confirmation sampling was performed on both ex-situ and in-situ treated soils.

Confirmation Sampling

Confirmation sampling was completed in mid-September. Two sampling strategies were deployed including statistical sampling and multi-incremental sampling. 14 grab samples were collected from the ex-situ stockpile. 11 samples were collected from the in-situ treated soils. These samples were intended for statistical analyses. 3 multi-incremental samples were collected – 1 representing the ex-situ stockpile, 1 the in-situ treated soil and 1 – the combined treated soils.

Additional Characterization Activities

A large excavator was delivered to the site with a float mat constructed of logs. The excavator was positioned on the logs to allow excavation to deeper depths. The liner was detected in the bio–pit at 9 ft. BGS. 6 soil samples were collected under the liner for characterization.

Layout

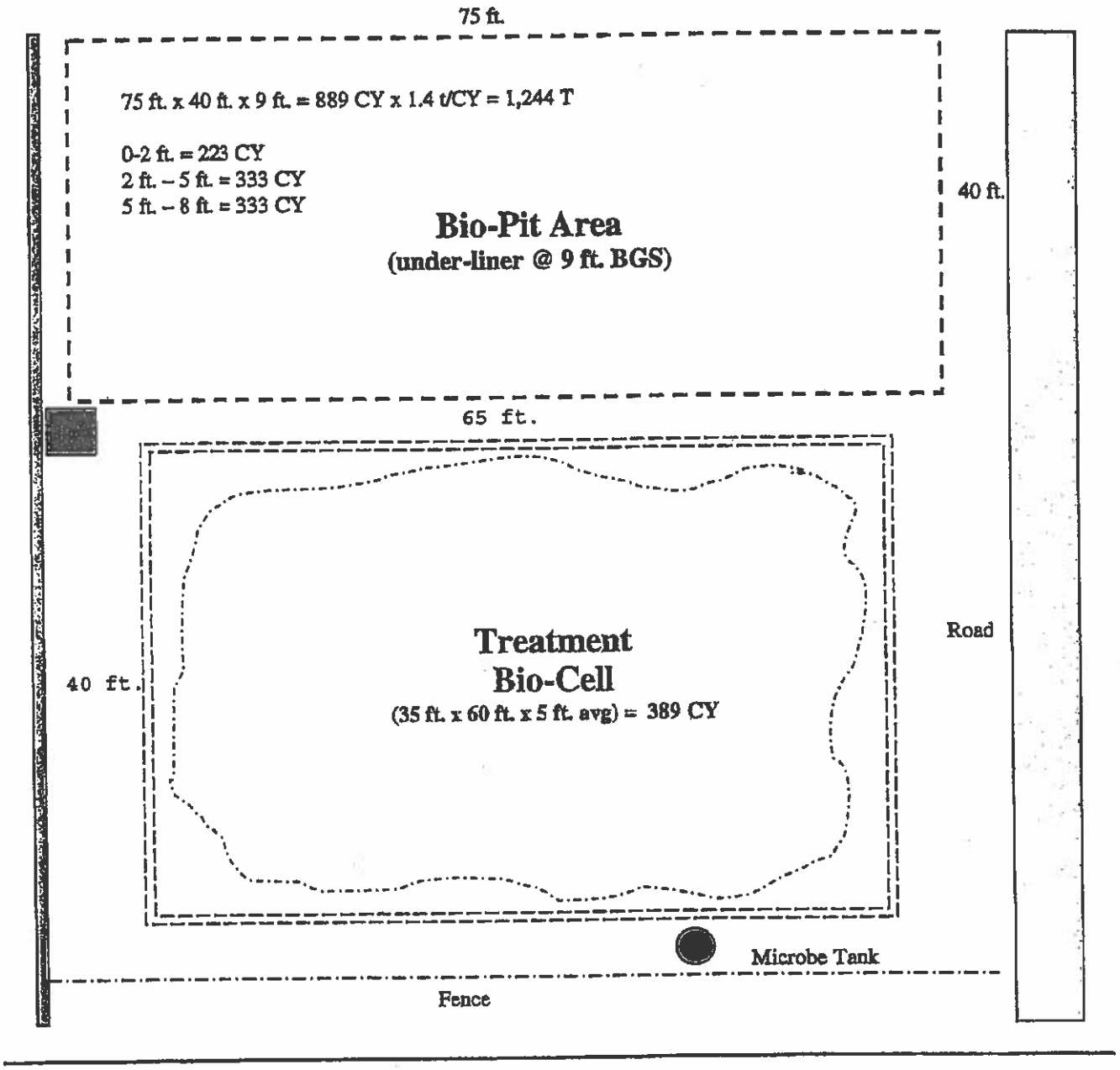

Figure 1. Layout of Treatment Area

Treatment Area

389 CY were removed, placed in the adjacent bio-cell, and ex-situ treated. This represents the upper 3.5 ft. of the bio-pit area – average. Actual excavation was deeper near the roadway and less shallow towards the tank farm boundary concrete wall. Access was difficult because of wet conditions and the heavy equipment was frequently mired.

The remaining 500 CY was treated in-situ, representing an average depth of 4.5 feet in the bio-pit. Again the actual excavation was deeper near the roadway, where the liner was detected once, and shallower near the concrete boundary wall. Treatment was achieved by mixing. Soil not reachable using the excavator was treated and reached via infiltration of biochemical agents. The liner was not removed and essentially undisturbed.

One dump truck load of old liner, fence posts, concrete debris and 3" piping from the operation of the old bio-pit was deliveed to the Petersburg landfill for disposal.

Unique Soil Characteristics

Excavated soils were observed to be highly saturated and composed of very high concentration of peat and wood. Saturated water from the soils was noted to be discolored – slightly orange indicative of natural woodwaste leachate. This is a common occurrence in muskeg soils. Such conditions imply the likelihood of biogenic interference.

Method 3 Clean-Up Limits

DRO – 8,300 ppm (defaulted from 12,500 ppm)

- Assume 5,000 ppm as worst case DRO concentration in contaminated soils
- Leave all remaining default parameters
- 0.102 g/g TOC average (20 samples)

Benzene – 0.317 ppm

- Assume 5,000 ppm as worst case DRO concentration in contaminated soils
- Leave all remaining default parameters
- 0.102 g/g TOC average (20 samples

Historic clean-up levels have been 1,000 ppm DRO and 230 ppm DRO and 0.02 ppm Benzene. No basis for assigning such values has been presented. The DRO clean-up value for the alls Creek ADNR Petersburg site was approximately 800 ppm DRO in soils mixed with organic and greywacke sediment containing 87% solids. The former Unocal Site contains soils that are essentially all organic with very high concentrations of peat (>50%) and only 46% solids.

Results

Treated Soil Stockpile (0 ft.)	DRO –	581 ppm
	Benzene –	ND
In-Situ Treated Soils (2 ft.)	DRO –	862 ppm
	Benzene –	0.02 ppm
In-Situ Treated Soils (5 ft.)	DRO –	1,401 ppm
	Benzene -	0.06 ppm
In-Situ Treated Soils (8 ft.)	DRO –	2,137 ppm
	Benzene -	0.08 ppm
Soils Under Liner (9 ft.)	DRO -	1,323 ppm
	Benzene -	0.03 ppm

Data Validation and Verification

Petroleum

QA/QC samples were collected representing ex-situ, in-situ, multi-incremental and under-liner samples. The GRO/VOC sample under the liner exhibited an RPD of 39% (Duplicate). The DRO sample under the liner had an REC or 34% (M-spike) and an RPD of 26% (M-spike duplicate). The GRO/VOC ex-situ sample exhibited poor surrogate recovery 24%-26% (M-spike and M-spike duplicate) and an RPD of 23% (duplicate). One of the two ex-situ DRO samples had an RPD value of 34% (duplicate). The GRO/VOC in-situ sample had surrogate recoveries of 52%-53% (Duplicate, M-spike and M-spike duplicate). The multi incremental RRO sample exhibited an RPD of 67%. Surrogate recoveries for the GRO/VOC sample of the same varied from 24%-33% with an RPD of 23% (Duplicate, M-spike and M-spike Duplicate). Poor surrogate recoveries and high reproducibility error is common with samples high in biogenic interference and with poor homogeneity. The values noted do not alter the conclusions of the report.

PAH

Surrogate recoveries from the Duplicate, M-spike and M-spike Duplicate varied from 49%-59% for the Blank and LCS. Again, poor surrogate recoveries s common with samples high in biogenic interference and with poor homogeneity. The values noted do not alter the conclusions of the report.

Biogenic Interferences

The site contains water saturated soils with only 46% solids and concentrations of natural peat exceeding 50%. Some of the samples were predominantly peat - >90%. Peat has characteristic chromatograms in the DRO range as high as 5,000 ppm. In 2005, peat samples from the Falls Creek ADNR Petersburg site were analyzed to contain natural DRO concentrations exceeding 1,500 ppm.

The water portion of the samples has the appearance of woodwaste leachate and is clean amber in color denoting the presence of natural organics (tannins). This occurrence is common in Southeast Alaska and especially in muskeg environments with peat. Woodwaste leachate contains TOC values as high as 15 ppm. The composition of leachate is directly proportional to the ratio of spruce to hemlock in the forest. Examples of biogenic organics in leachate include lipids, plant oils, tannins, lignins, animal fats, proteins, humic acids, fatty acids and wood resin acids (terpenes, pinenes, etc.).

The silica gel clean-up process was designed to remove "polar" organics (part of the natural organic loading) from soil and water samples. Unfortunately, many non-polar or only slightly polar biogenic components will not be removed by silica gel. These include plant waxes, alcohols, aldehydes and acids – all common chemical families in woodwaste leachate. Accordingly, silica gel clean-up of samples containing woodwaste may reduce the DRO by only 5-10 ppm. The remaining biogenics are not impacted.

Chromatograms can sometimes be used to distinguish between diesel fuel and other organics. However, natural peat chromatograms are almost identical to diesel fuel chromatograms. A preferred method may be the analyses of all acid, base, neutral organics with the identification of "TICs" to define the individual species of organics present. The species can be separated into those originating from fuel and those with natural parents.

In conclusion, muskeg derived soils contain high concentrations of peat and will give a high characteristic DRO reading. Silica gel will remove little of the biogenics present, which are predominantly non-polar or slightly polar waxes, alcohols, aldehydes and acids. The most common of these natural compounds in Southeast Alaska are terpene and isopropyltoluene. Clearly, the muskeg saturated soils of the former Unocal Site in Petersburg containing peat are highly contaminated with natural biogenics.

The ADEC Method 3 calculator provides an effective method to determine a clean-up limit in consideration of the biogenics present in the soil based on total organic carbon levels. At the site in Petersburg, the TOC levels are 10% of the total soil concentration (i.e. – 102,000 ppm TOC). These extremely high TOC values will provide for the most accurate clean-up limit in consideration of the biogenics present.

Discussion of Results

- The average TOC concentration at the site is 102,000 ppm (10% of the soil concentration). Biogenic interference will be significant at the site.
- The effective limit of treatment achievable appears to be 440 – 600 ppm DRO.
- 389 CY were ex-situ treated and 500 CY in-situ treated.
- The average treated soil concentration (ex-situ and in-situ) is 1,059 ppm DRO and 0.03 ppm Benzene. All of the soils meet the Method 3 clean-up limit calculated for DRO (8,300 ppm) and benzene (0.317 ppm). Method 2 clean-up limits, if applied, would be 230 ppm DRO and 0.02 ppm benzene.
- Ex-situ treatment is highly effective at removing both petroleum and natural organics. Treatment to 581 ppm DRO and 0 ppm benzene was achieved.
- In-situ treatment was less effective than ex-situ treatment and effectiveness diminishes with depth – 862 ppm (2 ft.), 1,401 ppm (5 ft.), and 2,137 ppm (8 ft.) DRO; 0.02 ppm (2 ft.), 0.06 ppm (5 ft.), 0.08 ppm (8 ft.) Benzene
- The liner on site was effective and concentrations immediately above the liner at 8 ft. BGS (DRO – 2,137 ppm; Benzene – 0.08 ppm) are significantly higher than soils immediately under the liner at 9 ft. BGS (DRO – 1,323 ppm, 0.03 ppm benzene).
- If the soils under the liner are not impacted by the presence of petroleum hydrocarbon waste and contain only natural biogenics, then overall treatment to 1,059 ppm DRO is less than 1,323 ppm DRO and benzene is the same at 0.03 ppm – treatment is complete.
- Soils above the liner have petroleum odor. The odor could represent gas trapped in the interstitial soil spaces from historic degradation of fuel or treatment of fuel and not untreated product. This gas is released upon excavation and disturbance as observed during excavation and treatment.
- Release to groundwater is not an issue so long as the benzene concentration remains below 0.317 ppm and the DRO concentration below 8,300 ppm. Method 3 calculations were performed in consideration of southeast, Alaska using default parameters.
- Statistical sampling (95% UCL = 624 ppm DRO) is almost identical to multi-incremental sampling (DRO = 627 ppm) for DRO.
- Multi-incremental sampling for benzene is 0 ppm and 0.04 ppm statistically (95% UCL) These values were different possibly due to the very small increments collected and exposed

Recommendations

1. The site has been treated far below Method 3 limits.

2. Place a note on the ADEC record that the site has been remediated – not a note on the property warranty deed, especially if item #3 below is performed.

3. As a measure of added precaution, excavate the soil immediately above and below the liner and:

   A. Deliver it to the local landfill for disposal, or
   B. Spray biochemical on the excavated soil to further reduce the DRO level, or
   C. Ship the soil off-site (may be too expensive!)

   This effort (see Item #3) is only considered to address Conoco Philips desire to provide an enhanced environmental solution with little political or public perception of inadequacy.

4. With a larger excavator on log mats, additional excavation can be accomplished, if desired. Treatment from apx. 1, 500 ppm DRO to apx. 500 ppm can be easily achieved by simple mixing of biochemical agents with the excavator bucket. The hoe can also easily remove the bio-pit liner.

DMC Technologies
Performance & Affordability

SEC-001

PETERSBURG: CONOCO-PHILLPS DEPOT

Sample	Dry Wt.	Dry Wt.	Solids	TOC	GRO	B	T	E	X	DRO	RRO
	%	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pit Under Liner											
BL-TP-1	38.2	nt	nt	nt	nt	nt	nt	nt	nt	1,930.00	nt
BL-TP-2	39.3	nt	nt	nt	39.1	0.00	0.00	0.759	3.05	1,830.00	nt
BL-TP-3	55.1	nt	nt	nt	nt	nt	nt	nt	nt	1,280.00	nt
BL-TP-4	28.2	nt	nt	nt	nt	nt	nt	nt	nt	877.00	nt
BL-TP-5	52.3	nt	nt	nt	20.8	0.0536	0.00	0.759	3.05	1,660.00	nt
BL-TP-6	15.2	nt	nt	nt	nt	nt	nt	nt	nt	360.00	nt
Under Liner Avg.	*38.05*				*29.95*	*0.03*	*0.00*	*0.76*	*3.05*	*1,322.83*	
Ex-Situ (Treated Pile)											
Pile 1 Pop	46.40	52.60	nt	71,600.00	33.90	0.00	0.00	0.80	1.67	914.00	803.00
Pile 1 Middle	35.60	38.00	nt	146,000.00	nt	nt	nt	nt	nt	1,420.00	1,130.00
Pile 1 Bottom	59.30	60.10	nt	64,000.00	15.70	0.00	0.00	0.19	0.19	489.00	628.00
Pile 2 Top	53.10	51.20	nt	102,000.00	15.70	0.00	0.00	0.25	0.52	427.00	462.00
Pile 2 Middle	59.00	51.90	55.80	74,900.00	11.00	0.00	0.00	0.14	0.25	441.00	504.00
TSP-3 (Dup. Pile 2 Middle)	56.00	nt	nt	waiting	nt	nt	nt	nt	nt	401.00	nt
Pile 2 Bottom	54.90	49.70	nt	94,500.00	9.02	0.00	0.00	0.12	0.24	402.00	427.00
Pile 3 Top	48.50	50.20	nt	81,100.00	8.82	0.00	0.00	0.14	0.23	602.00	668.00
Pile 3 Middle	51.60	55.10	nt	79,300.00	10.40	0.00	0.00	0.13	0.25	475.00	584.00
Pile 3 Bottom	55.00	54.00	54.80	63,300.00	11.30	0.00	0.00	0.11	0.24	435.00	555.00
TSP-4 (Dup. Pile 3 Bottom)	56.80	nt	nt	waiting	nt	nt	nt	nt	nt	428.00	nt

DMC Technologies

Performance & Affordability

SEC-001

In-Situ (Pit Above Liner)				TOC	GRO	B	T	E	X	DRO	RRO
In-Situ 1- 2 ft.	44.70	61.30	nt	77,100.00	22.10	0.04	0.00	0.85	2.39	901.00	763.00
In-Situ 2- 2 ft.	54.90	48.10	nt	137,000.00	61.10	0.03	0.00	0.96	3.39	1,050.00	634.00
In-Situ 3- 2 ft.	49.10	52.40	nt	93,000.00	28.00	0.00	0.00	0.45	1.30	636.00	508.00
Avg. 2 ft.						*0.02*				*862.33*	
In-Situ 1- 5 ft.	35.10	33.20	nt	154,000.00	86.80	0.09	0.00	1.93	5.77	1,680.00	1,420.00
In-Situ 2- 5 ft.	39.20	43.80	44.60	140,000.00	54.90	0.06	0.24	1.02	4.01	992.00	856.00
TSP-1 (Dup. In-Situ 2- 5 ft.)	48.00	nt	nt	waiting	nt	nt	nt	nt	nt	1,880.00	nt
In-Situ 3- 5 ft.	48.90	44.00	nt	125,000.00	29.00	0.04	0.00	0.68	2.38	1,050.00	669.00
Avg. 5 ft.						*0.06*				*1,400.50*	
In-Situ 1- 8 ft.	31.40	31.90	nt	159,000.00	45.20	0.10	0.00	1.19	5.40	1,920.00	2,310.00
In-Situ 2- 8 ft.	58.30	60.80	nt	59,200.00	37.30	0.03	0.00	0.56	1.76	639.00	504.00
In-Situ 3- 8 ft.	31.10	30.60	33.50	213,000.00	64.20	0.10	0.00	1.03	5.85	2,410.00	1,870.00
TSP-2 (Dup. In-Situ 3- 8 ft.)	32.00	nt	nt	waiting	nt	nt	nt	nt	nt	3,580.00	nt
Avg. 8 ft.						*0.08*				*2,137.25*	
In-Situ Avg.	*42.97*	*45.12*	*39.05*	*128,588.89*	*47.62*	*0.06*	*0.03*	*0.96*	*3.58*	*1,521.64*	*1,059.33*

Total Avg.	Dry Wt.			TOC	GRO	B	T	E	X	DRO	RRO
Data	*46.08*			*102,000.00*	*31.29*	*0.03*	*0.01*	*0.62*	*2.13*	*1,058.68*	*819.40*
# Samples	*31*			*20*	*20*	*20*	*20*	*20*	*20*	*31*	*20*
			g TOC / g Soil	***0.1020***							

Multi-Incremental											
Total Composite	49.00	46.10	56.10	85,300.00	0.00	nd	nd	0.09	0.33	503.00	578.00
In-Situ Composite	43.20	40.00	43.60	128,000.00	60.00	nd	nd	1.01	3.37	962.00	824.00
Ex-Situ Composite	53.90	48.40	61.90	79,800.00	4.41	nd	nd	0.09	0.23	416.00	497.00
MI Avg.	*48.70*	*44.83*	*53.87*	*97,700.00*	*21.47*	*0.00*	*0.00*	*0.40*	*1.31*	*627.00*	*633.00*

DMC Technologies

Performance & Affordability

SEC-001

PETERSBURG: CONOCO-PHILLPS DEPOT

Petroleum QA/QC Data

	BLANK	LCS	LCS Dup	Dup	M Spike	M Spike Dup
Under Liner	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC
	GRO ND MRL 3.33 . VOC ND SR: FID 94.2% SR: PID 85.4% MRL 0.0133 - 0.0500	GRO 18.2 REC 82.7% MRL 3.33 . VOC 1.93 - 0.320 REC 110%-82.8% SR: FID 94.6% SR: PID 89.8% MRL 0.0133 - 0.0500	GRO 18.6 REC 84.5% RPD 2.17% MRL 3.33 . VOC 2.01 - 0.333 REC 105%-98.2% RPD 3.98%-5.66% SR: FID 97.9% SR: PID 94.2% MRL 0.0133 - 0.0500	GRO ND RPD 89.5% MRL 3.36 SR: FID 86.8%	VOC 2.44 - 0.797 REC 127%-114% SR: PID 89.1% MRL 0.0134 - 0.0504	VOC 0.0504 - 0.0134 REC 110%-104% RPD 5.47%-6.82% SR: PID 87.2% MRL 0.00281- 0.0406
	DRO	DRO	DRO	DRO	DRO	DRO
	ND SR: I-C 115% MRL 50.0	111 REC 88.1% SR: I-C 110% MRL 50.0	114 REC 90.5% RPD 2.67% SR: I-C 105% MRL 50.0	1960 RPD 1.54% SR:I-C 101% MRL 181	1820 REC 94% SR: I-C 100% MRL 181	2360 REC 130% RPD 25.8% SR: I-C 113% MRL 181

	BLANK	LCS	LCS Dup	Dup	M Spike	M Spike Dup
Ex-Situ Samples	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC
	GRO ND MRL 3.33 . VOC ND SR: FID 73.3% SR: PID 67.5% MRL 0.0133-0.0500	GRO 15.3 REC 89.5% MRL 3.33 . VOC 1.85 - 0.272 REC 101%-82.9% SR: FID 80.4% SR: PID 78.2% MRL 0.0133 - 0.0500	GRO 15.8 REC 71.8% RPD 3.22% MRL 3.33 . VOC 1.90 - 0.396 REC 102%-87.2% RPD 1.27%-5.68% SR: FID 85.0% SR: PID 89.7% MRL 0.0133 - 0.0500	GRO ND RPD 22.5% MRL 7.84 SR: FID 33.4%	VOC 4.67-1.44 REC 97.6%-89.5% SR: PID 26.2% MRL 0.118-0.0784	VOC 4.36-1.32 REC 89.3%-81.1% RPD 6.70%-5.88% SR: PID 24.3% MRL 0.329 - 0.00827
	DRO/RRO	DRO/RRO	DRO/RRO	DRO/RRO	DRO/RRO	DRO/RRO
	DRO ND MRL 25 . RRO ND MRL 50 SR: I-C 92.8% SR: Tri 91.4%	DRO 107 MRL 25 REC 84.9% . RRO 107 MRL 50 REC 84.9% SR: I-C 91.4% SR: Tri 89.1%	DRO 110 MRL 25 REC 87.3% RPD 2.76% . RRO 108 MRL 50 REC 85.7% RPD 0.930% SR: I-C 92.8% SR: Tri 92.2%	DRO ND MRL 25 RPD 33.4 % . RRO ND MRL 50 RPD 19.4% SR: I-C 83.4% SR: Tri 84.2%	DRO 113 MRL 25 REC 79% . RRO 112 MRL 50 REC 86.4% SR: I-C 88.2% SR:Tri 82.0%	DRO 114 MRL 25 REC 78% RPD 0.881% . RRO 117 MRL 50 REC 88.7% RPD 4.37% SR: I-C 87.2% SR: Tri 83.1%
	DRO/RRO	DRO/RRO	DRO/RRO	DRO/RRO	DRO/RRO	DRO/RRO
	DRO ND MRL 25 . RRO ND MRL 50 SR: I-C 90.8% SR:Tri 93.8%	DRO 105 MRL 25 REC 83.3% . RRO 115 MRL 50 Rec 91.3% SR: I-C 74.8% SR: Tri 88.3%	DRO 106 MRL 25 REC 84.1% RPD 0.946% . RRO 116 MRL 50 REC 92.1% RPD 0.868% SR: I-C 74.8% SR: Tri 89.1%	DRO ND MRL 25 RPD 9.10% . RRO ND MRL 50 RPD 67% SR: I-C 82.2% SR:Tri 82.8%	DRO 116 MRL 25 REC 82.5% . RRO 117 MRL 50 REC 82.9% SR: I-C 85.5% SR: Tri 82.7%	DRO 118 MRL 25 REC 84% RPD 1.71% . RRO 120 MRL 50 REC 85.1% RPD 2.53% SR:I-C 87.4% SR: Tri 83.5%

	BLANK	LCS	LCS Dup	Dup	M Spike	M Spike Dup
In-Situ	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC
	GRO ND MRL 3.33 . VOC ND SR: FID 88.8% SR: PID 77.1% MRL 0.0133-0.0500	GRO 16.4 REC 74.5% MRL 3.33 . VOC 1.92-0.293 REC 101%-89.3% SR: FID 89.6% SR: PID 85% MRL 0.0133-0.0500	GRO 16.4 REC 74.5% RPD 0% Mrl 3.33 . VOC 1.94-0.397 REC 102%-91% RPD 2.03%-0.753% SR: FID 89.6.0% SR: PID 85% MRL 0.0133-0.0500	GRO ND RPD 10.2% MRL 3.68 SR: FID 51.5%	VOC 2.48-0.788 REC 101%-92.3% SR:PID 52.6% MRL 0.0562-0.0147	VOC 2.48-0.788 REC 102%-91.8% RPD 0.813%-0.254% SR: PID 52.4% MRL 0.0552-0.0147

DMC Technologies

Performance & Affordability

SBC-001

	BLANK	LCS	LCS Dup	Dup	M Spike	M Spike Dup
Multi-Incremental	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC
	GRO ND MRL 3.33 . VOC ND SR: FID 84.2% SR: PID 85.4% MRL 0.0133-0.0500	GRO 18.2 REC 82.7%% MRL 3.33 . VOC 1.93-0.425 REC 110%-82.7% SR: FID 94.8% SR: PID 89.6% MRL 0.0133-0.0500	GRO 18.6 REC 84.5% RPD 2.17% Mrl 3.33 . VOC 2.01-0.405 REC 105%-84.5% RPD 5.66%-2.17% SR: FID 97.9% SR: PID 94.2% MRL 0.0133-0.0500	GRO ND RPD 39.2% MRL 3.36 SR: FID 86.8%	VOC 2.44-0.797 REC 127%-114% SR:PID 89.1% MRL 0.0504-0.0134	VOC 2.31-0.748 REC 118%-104% RPD 5.62%-6.47% SR: PID 87.2% MRL 0.0504-0.0134
	DRO/RRO	DRO/RRO	DRO/RRO	DRO/RRO	DRO/RRO	DRO/RRO
	DRO ND MRL 25 . RRO ND MRL 50 SR: I-C 90.6% SR: Tri 93.8%	DRO 105 MRL 25 REC 83.3% . RRO 115 MRL 50 REC 91.3% SR: I-C 74.8% SR: Tri 88.8%	DRO 106 MRL 25 REC 84.1% RPD 0.946% . RRO 116 MRL 50 REC 92.1% RPD 0.866% SR: I-C 74.8% SR: Tri 89.1%	DRO ND MRL 25 RPD 3.10 % . RRO ND MRL 50 RPD 67% SR: I-C 85.5% SR: Tri 82.7%	DRO 116 MRL 25 REC 82.5% . RRO 117 MRL 50 REC 82.9% SR: I-C 85.5% SR:Tri 82.7%	DRO 118 MRL 25 REC 84% RPD 1.71% . RRO 120 MRL 50 REC 85.1% RPD 2.53% SR: I-C 87.4% SR: Tri 83.5%
	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC	GRO/VOC
	GRO ND MRL 3.33 . VOC ND SR: FID 73.3% SR: PID 67.5% MRL 0.0133-0.0500	GRO 15.3 REC 69.5% MRL 3.33 . VOC 1.85-0..391 REC 101%-82.9% SR: FID 80.4% SR: PID 76.2% MRL 0.0133-0.0500	GRO 15.8 REC 71.8% RPD 3.22% Mrl 3.33 . VOC 1.90-0.266 REC 102%-87.2% RPD 5.83%-1.27% SR: FID 85% SR: PID 81.7% MRL 0.0133-0.0500	GRO ND RPD 22.5% MRL 7.84 SR: FID 33.4%	VOC 4.67-1.40 REC 97.6%-88.5% SR:PID 26.2% MRL 0.118-0.0313	VOC 4.36-1.32 REC 89.3%-81.1% RPD 6.70%-5.887% SR: PID 24.3% MRL .118-0.0313

DMC Technologies

Performance & Affordability

SEC-001

PETERSBURG: CONOCO-PHILLPS DEPOT

PAH and PAH QA Data

PAHs (mg/kg)	Pile 2 Middle	Pile 3 Bottom	In-Situ 2- 5ft.	In-Situ 3- 8ft.	Comp Ex-Situ	Comp In-Situ	Comp Total	Avg.
2-methylnapthalene	0.047	0.0885	0.335	2.13	0.0535	0.791	0.0611	0.65
1-methylnapthalene	0.0447	0.104	0.139	3.56	0.0689	0.417	0.0685	0.96
Acenaphthene	0.244	0.274	2	3.68	0.183	2.45	0.18	1.55
Acenaphalyene	nd	nd	nd	nd	nd	nd	nd	0.00
Anthracene	0.0599	0.0923	0.408	0.943	0.0853	0.698	0.0537	0.38
Benzo(a)anthracene	0.0729	0.113	0.245	0.993	0.138	0.451	0.109	0.36
Benzo(a)pyrene	0.0294	0.0423	nd	0.482	0.0635	0.112	0.0481	0.14
Benzo(b)fluoranthene	0.0435	0.0564	0.147	0.492	0.0743	0.135	0.0648	0.18
Benzo(g,h,i)perylene	0.0247	0.0256	nd	0.211	nd	0.0694	nd	0.07
Benzo(k)fluoranthene	0.0376	0.0474	0.147	0.552	0.0725	0.135	0.0516	0.20
Chrysene	0.0987	0.163	0.261	1.39	0.243	0.71	0.141	0.48
Dibenzo(a,h)anthracene	nd	nd	nd	nd	nd	nd	nd	0.00
Fluoranthene	0.394	0.591	1.59	3.44	0.597	2.57	0.493	1.50
Fluorene	0.132	0.185	1.23	3.36	0.132	2.12	0.131	1.23
Ideno(1,2,3-c,d)pyrene	0.0223	0.0306	nd	0.191	0.0361	nd	nd	0.06
Naphthalene	0.0811	0.199	0.261	11.3	0.131	0.451	0.126	2.96
Phenanthrene	0.29	0.454	1.85	7.74	0.372	5.07	0.346	2.58
Pyrene	0.571	0.935	1.13	3.06	1.06	2.03	nd	1.43
Total Analytes	*2.2*	*3.4*	*9.7*	*43.5*	*3.9*	*18.2*	*1.9*	*11.8*

Blank	LCS	M Spike	M Spike Dup
ND	0.140 - 0.101	0.181 - 0.130	0.198 -0.164
MRL 0.0100	REC 83.8%-60.5%	REC 98.9%-71%	REC 116%-86.5%
SR: nb 59.2%	MRL 0.0100	MRL 0.0110	RPD 2.31%-8.48%
SR: fbp 76.6%	SR: nb 58.6%	SR: nb 85%	MRL 0.0110
SR: p-t 86.2%	SR: fbp 82.6%	SR: fbp 96.2%	SR: nb 116%
	SR: p-t 104%	SR: p-t 112%	SR: fbp 119%
SR: nb 51.6%	SR: nb 48.6%	SR: nb 74%	
SR: fbp 58.0%	SR: fbp 49.8%	SR: fbp 71%	
SR: p-t 99.5%	SR: p-t 90.3%	SR: p-t 122%	

TestAmerica
ANALYTICAL TESTING CORPORATION

ANCHORAGE, AK 2000 W INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
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October 10, 2006

Dan McNair
DMC Technologies
3528 W. Hgwy. 33
Rexburg, ID/USA 83440

RE: Petersburg Depot

Enclosed are the results of analyses for samples received by the laboratory on 09/21/06 09:28. The following list is a summary of the Work Orders contained in this report, generated on 10/10/06 20:33.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
API0086	Petersburg Depot	SEC PET- CP - 01

Jennifer L. Poppe, Chemist I

TestAmerica
ANALYTICAL TESTING CORPORATION

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
In-Sito Biocell Composite	API0086-01	Soil	09/20/06 11:45	09/21/06 09:28
Treated Soil Composite	API0086-02	Soil	09/20/06 12:05	09/21/06 09:28
Ex- Sito Pile Composite	API0086-03	Soil	09/20/06 11:55	09/21/06 09:28

Jennifer L. Poppe, Chemist I

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Gasoline Range Organics (C6-C10) and BTEX per AK101

TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL^	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0086-01 (In-Sito Biocell Composite)		**Soil**				**Sampled: 09/20/06 11:45**				
Gasoline Range Organics	AK101 GRO/BTEX	**60.0**	-----	11.7	mg/kg dry	1x	6090110	09/27/06 10:27	09/28/06 16:17	
Benzene	"	ND	----	0.0467	"	"	"	"	"	
Toluene	"	ND	----	0.117	"	"	"	"	"	
Ethylbenzene	"	**1.01**	----	0.117	"	"	"	"	"	
Xylenes (total)	"	**3.37**	----	0.175	"	"	"	"	"	
Surrogate(s): a,a,a-TFT (FID)			*63.1%*		*50 - 150 %*	"			"	
a,a,a-TFT (PID)			*54.9%*		*20.2 - 131 %*	"			"	
API0086-02 (Treated Soil Composite)		**Soil**				**Sampled: 09/20/06 12:05**				
Gasoline Range Organics	AK101 GRO/BTEX	ND	-----	7.84	mg/kg dry	2.25x	6090118	09/28/06 14:02	09/29/06 17:49	
Benzene	"	ND	----	0.0313	"	"	"	"	"	
Toluene	"	ND	----	0.0784	"	"	"	"	"	
Ethylbenzene	"	**0.0873**	----	0.0784	"	"	"	"	"	
Xylenes (total)	"	**0.329**	----	0.118	"	"	"	"	"	
Surrogate(s): a,a,a-TFT (FID)			*42.6%*		*50 - 150 %*	"			"	*S-12*
a,a,a-TFT (PID)			*36.9%*		*20.2 - 131 %*	"			"	
API0086-03 (Ex- Sito Pile Composite)		**Soil**				**Sampled: 09/20/06 11:55**				
Gasoline Range Organics	AK101 GRO/BTEX	**4.41**	----	3.65	mg/kg dry	2.25x	6090118	09/28/06 14:02	09/29/06 21:07	
Benzene	"	ND	----	0.0146	"	"	"	"	"	
Toluene	"	ND	----	0.0365	"	"	"	"	"	
Ethylbenzene	"	**0.0902**	----	0.0365	"	"	"	"	"	
Xylenes (total)	"	**0.225**	----	0.0548	"	"	"	"	"	
Surrogate(s): a,a,a-TFT (FID)			*53.9%*		*50 - 150 %*	"			"	
a,a,a-TFT (PID)			*45.9%*		*20.2 - 131 %*	"			"	

TestAmerica - Anchorage, AK

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ANCHORAGE, AK 99502-1119
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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0086-01 (In-Sito Biocell Composite)		**Soil**			**Sampled: 09/20/06 11:45**					
Diesel Range Organics	AK102/103	**962**	----	57.9	mg/kg dry	1x	6090096	09/25/06 07:36	09/26/06 03:35	
Residual Range Organics	"	**824**	----	116	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*62.6%*		*50 - 150 %*	"			"	
Triacontane			*71.3%*		*50 - 150 %*	"			"	
API0086-02 (Treated Soil Composite)		**Soil**			**Sampled: 09/20/06 12:05**					
Diesel Range Organics	AK102/103	**503**	----	51.0	mg/kg dry	1x	6090096	09/25/06 07:36	09/26/06 04:07	
Residual Range Organics	"	**578**	----	102	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*64.6%*		*50 - 150 %*	"			"	
Triacontane			*73.4%*		*50 - 150 %*	"			"	
API0086-03 (Ex- Sito Pile Composite)		**Soil**			**Sampled: 09/20/06 11:55**					
Diesel Range Organics	AK102/103	**416**	----	25.0	mg/kg dry	1x	6090096	09/25/06 07:36	09/26/06 04:39	
Residual Range Organics	"	**497**	----	50.0	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*83.5%*		*50 - 150 %*	"			"	
Triacontane			*96.1%*		*50 - 150 %*	"			"	

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Physical Parameters by APHA/ASTM/EPA Methods

TestAmerica - Anchorage, AK

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0086-01 (In-Sito Biocell Composite)		**Soil**				**Sampled: 09/20/06 11:45**				
Dry Weight	TA-AK-FLS-005 -R01	43.2	----	1.00	%	1x	6090097	09/25/06 07:38	09/26/06 07:14	
API0086-02 (Treated Soil Composite)		**Soil**				**Sampled: 09/20/06 12:05**				
Dry Weight	TA-AK-FLS-005 -R01	49.0	----	1.00	%	1x	6090097	09/25/06 07:38	09/26/06 07:14	
API0086-03 (Ex- Sito Pile Composite)		**Soil**				**Sampled: 09/20/06 11:55**				
Dry Weight	TA-AK-FLS-005 -R01	53.9	----	1.00	%	1x	6090097	09/25/06 07:38	09/26/06 07:14	

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0086-01 (In-Sito Biocell Composite)		**Soil**			**Sampled: 09/20/06 11:45**					
1-Methylnapthalene	EPA 8270 mod.	0.791	----	0.0579	mg/kg dry	1x	6090196	09/26/06 07:39	10/04/06 01:48	
2-Methylnaphthalene	"	0.417	----	0.0579	"	"	"	"	"	
Acenaphthene	"	2.45	----	0.0579	"	"	"	"	"	
Acenaphthylene	"	ND	----	0.0579	"	"	"	"	"	
Anthracene	"	0.698	----	0.0579	"	"	"	"	"	
Benzo (a) anthracene	"	0.451	----	0.0579	"	"	"	"	"	
Benzo (a) pyrene	"	0.112	----	0.0579	"	"	"	"	"	
Benzo (b) fluoranthene	"	0.135	----	0.0579	"	"	"	"	"	
Benzo (ghi) perylene	"	0.0694	----	0.0579	"	"	"	"	"	
Benzo (k) fluoranthene	"	0.135	----	0.0579	"	"	"	"	"	
Chrysene	"	0.710	----	0.0579	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0579	"	"	"	"	"	
Fluoranthene	"	2.57	----	0.0579	"	"	"	"	"	
Fluorene	"	2.12	----	0.0579	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0579	"	"	"	"	"	
Naphthalene	"	0.451	----	0.0579	"	"	"	"	"	
Phenanthrene	"	5.07	----	0.0579	"	"	"	"	"	
Pyrene	"	2.03	----	0.0579	"	"	"	"	"	
Surrogate(s): Nitrobenzene-d5			*51.6%*		*36.3 - 138 %*	"			"	
2-FBP			*58.0%*		*23.3 - 147 %*	"			"	
p-Terphenyl-d14			*99.5%*		*38.6 - 142 %*	"			"	
API0086-02 (Treated Soil Composite)		**Soil**			**Sampled: 09/20/06 12:05**					
1-Methylnapthalene	EPA 8270 mod	0.0611	----	0.0278	mg/kg dry	1x	6090196	09/26/06 07:39	10/04/06 02:18	
2-Methylnaphthalene	"	0.0685	----	0.0278	"	"	"	"	"	
Acenaphthene	"	0.180	----	0.0278	"	"	"	"	"	
Acenaphthylene	"	ND	----	0.0278	"	"	"	"	"	
Anthracene	"	0.0537	----	0.0278	"	"	"	"	"	
Benzo (a) anthracene	"	0.109	----	0.0278	"	"	"	"	"	
Benzo (a) pyrene	"	0.0481	----	0.0278	"	"	"	"	"	
Benzo (b) fluoranthene	"	0.0648	----	0.0278	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0278	"	"	"	"	"	
Benzo (k) fluoranthene	"	0.0518	----	0.0278	"	"	"	"	"	
Chrysene	"	0.141	----	0.0278	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0278	"	"	"	"	"	
Fluoranthene	"	0.483	----	0.0278	"	"	"	"	"	
Fluorene	"	0.131	----	0.0278	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0278	"	"	"	"	"	
Naphthalene	"	0.126	----	0.0278	"	"	"	"	"	
Phenanthrene	"	0.346	----	0.0278	"	"	"	"	"	

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0086-02 (Treated Soil Composite)		**Soil**			**Sampled: 09/20/06 12:05**					1
Pyrene	EPA 8270 mod	**0.837**	-----	0.0278	mg/kg dry	1x	6090196	09/26/06 07:39	10/04/06 02:18	
Surrogate(s): Nitrobenzene-d5			*48.6%*		*36.3 - 138 %*	"			"	
2-FBP			*49.8%*		*23.3 - 147 %*	"			"	
p-Terphenyl-d14			*90.3%*		*38.6 - 142 %*	"			"	
API0086-03 (Ex- Sito Pile Composite)		**Soil**			**Sampled: 09/20/06 11:55**					1
1-Methylnapthalene	EPA 8270 mod	**0.0635**	-----	0.0272	mg/kg dry	1x	6090196	09/26/06 07:39	10/04/06 02:48	
2-Methylnaphthalene	"	**0.0689**	-----	0.0272	"	"	"	"	"	
Acenaphthene	"	**0.183**	-----	0.0272	"	"	"	"	"	
Acenaphthylene	"	ND	-----	0.0272	"	"	"	"	"	
Anthracene	"	**0.0653**	-----	0.0272	"	"	"	"	"	
Benzo (a) anthracene	"	**0.138**	-----	0.0272	"	"	"	"	"	
Benzo (a) pyrene	"	**0.0635**	-----	0.0272	"	"	"	"	"	
Benzo (b) fluoranthene	"	**0.0743**	-----	0.0272	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	-----	0.0272	"	"	"	"	"	
Benzo (k) fluoranthene	"	**0.0725**	-----	0.0272	"	"	"	"	"	
Chrysene	"	**0.234**	-----	0.0272	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	-----	0.0272	"	"	"	"	"	
Fluoranthene	"	**0.597**	-----	0.0272	"	"	"	"	"	
Fluorene	"	**0.132**	-----	0.0272	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	**0.0381**	-----	0.0272	"	"	"	"	"	
Naphthalene	"	**0.131**	-----	0.0272	"	"	"	"	"	
Phenanthrene	"	**0.372**	-----	0.0272	"	"	"	"	"	
Pyrene	"	**1.06**	-----	0.0272	"	"	"	"	"	
Surrogate(s): Nitrobenzene-d5			*74.0%*		*36.3 - 138 %*	"			"	
2-FBP			*71.0%*		*23.3 - 147 %*	"			"	
p-Terphenyl-d14			*122%*		*38.6 - 142 %*	"			"	

TestAmerica - Anchorage, AK

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Conventional Chemistry Parameters by APHA/EPA Methods

TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0086-01	**(In-Sito Biocell Composite)**	**Soil**				**Sampled: 09/20/06 11:45**				
% Solids	CLP SOW ILM 6.X	40.0	—	0.0100	% by Weight	1x	6090221	09/28/06 11:02	09/28/06 11:07	
API0086-02	**(Treated Soil Composite)**	**Soil**				**Sampled: 09/20/06 12:05**				
% Solids	CLP SOW ILM 6.X	46.1	—	0.0100	% by Weight	1x	6090221	09/28/06 11:02	09/28/06 11:07	
API0086-03	**(Ex- Sito Pile Composite)**	**Soil**				**Sampled: 09/20/06 11:55**				
% Solids	CLP SOW ILM 6.X	48.4	—	0.0100	% by Weight	1x	6090221	09/28/06 11:02	09/28/06 11:07	

TestAmerica - Anchorage, AK

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Conventional Chemistry Parameters by APHA/EPA Methods

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0086-01 (In-Sito Biocell Composite)		**Soil**				**Sampled: 09/20/06 11:45**				
Total Organic Carbon	EPA 9060 mod.	**128000**	----	2290	mg/kg dry	1x	6J06056	09/29/06 18:10	10/06/06 17:43	
API0086-02 (Treated Soil Composite)		**Soil**				**Sampled: 09/20/06 12:05**				
Total Organic Carbon	EPA 9060 mod	**85300**	----	1780	mg/kg dry	1x	6J06056	09/29/06 18:10	10/06/06 17:58	
API0086-03 (Ex- Sito Pile Composite)		**Soil**				**Sampled: 09/20/06 11:55**				
Total Organic Carbon	EPA 9060 mod.	**79800**	----	1620	mg/kg dry	1x	6J06056	09/29/06 18:10	10/06/06 18:04	

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Physical Parameters by APHA/ASTM/EPA Methods

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
API0086-01 (In-Sito Biocell Composite)		**Soil**			**Sampled: 09/20/06 11:45**					
Dry Weight	BSOPSPL003R08	43.6	—	1.00	%	1x	6J09049	10/09/06 18:00	10/10/06 00:00	
API0086-02 (Treated Soil Composite)		**Soil**			**Sampled: 09/20/06 12:05**					
Dry Weight	BSOPSPL003R08	56.1	—	1.00	%	1x	6J09049	10/09/06 18:00	10/10/06 00:00	
API0086-03 (Ex- Sito Pile Composite)		**Soil**			**Sampled: 09/20/06 11:55**					
Dry Weight	BSOPSPL003R08	61.9	—	1.00	%	1x	6J09049	10/09/06 18:00	10/10/06 00:00	

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Gasoline Range Organics (C6-C10) and BTEX per AK101 - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090110 **Soil Preparation Method: AK101 Field Prep**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6090110-BLK1)							Extracted: 09/27/06 10:27							
Gasoline Range Organics	AK101 GRO/BTEX	ND	---	3.33	mg/kg wet	1x	--	--	--	--	--	--	09/27/06 19:42	
Benzene	"	ND	---	0.0133	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 94.2%*			*Limits: 50-150%*	"							*09/27/06 19:42*	
a,a,a-TFT (PID)		*85.4%*			*20.2-131%*	"							"	
LCS (6090110-BS1)							Extracted: 09/27/06 10:27							
Gasoline Range Organics	AK101 GRO/BTEX	18.2	---	3.33	mg/kg wet	1x	--	22.0	82.7%	(60-120)	--	--	09/27/06 18:36	
Benzene	"	0.320	---	0.0133	"	"	--	0.328	97.6%	(73.1-117)	--	--	"	
Toluene	"	1.54	---	0.0333	"	"	--	1.66	92.8%	(70.4-117)	--	--	"	
Ethylbenzene	"	0.425	---	0.0333	"	"	--	0.388	110%	(73.3-121)	--	--	"	
Xylenes (total)	"	1.93	---	0.0500	"	"	--	1.91	101%	(79-121)	--	--	"	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 94.6%*			*Limits: 50-150%*	"							*09/27/06 18:36*	
a,a,a-TFT (PID)		*89.6%*			*20.2-131%*	"							"	
LCS Dup (6090110-BSD1)							Extracted: 09/27/06 10:27							
Gasoline Range Organics	AK101 GRO/BTEX	18.6	---	3.33	mg/kg wet	1x	--	22.0	84.5%	(60-120)	2.17%	(20)	09/27/06 19:09	
Benzene	"	0.333	---	0.0133	"	"	--	0.328	102%	(73.1-117)	3.98%	(12.6)	"	
Toluene	"	1.63	---	0.0333	"	"	--	1.66	98.2%	(70.4-117)	5.68%	(11.4)	"	
Ethylbenzene	"	0.405	---	0.0333	"	"	--	0.388	104%	(73.3-121)	4.82%	(9.89)	"	
Xylenes (total)	"	2.01	---	0.0500	"	"	--	1.91	105%	(79-121)	4.06%	(11.1)	"	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 97.9%*			*Limits: 50-150%*	"							*09/27/06 19:09*	
a,a,a-TFT (PID)		*94.2%*			*20.2-131%*	"							"	
Duplicate (6090110-DUP1)					QC Source: API0083-01		Extracted: 09/27/06 10:27							
Gasoline Range Organics	AK101 GRO/BTEX	ND	---	3.36	mg/kg dry	2.7x	ND	--	--	--	39.2%	(50)	09/28/06 01:13	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 86.8%*			*Limits: 50-150%*	"							*09/28/06 01:13*	
Matrix Spike (6090110-MS1)					QC Source: API0083-01		Extracted: 09/27/06 10:27							
Benzene	AK101 GRO/BTEX	0.817	---	0.0134	mg/kg dry	2.7x	0.00281	0.715	114%	(70.6-120)	--	--	09/28/06 01:46	
Toluene	"	0.797	---	0.0336	"	"	0.0107	0.684	115%	(74.6-120)	--	--	"	
Ethylbenzene	"	0.875	---	0.0336	"	"	ND	0.687	127%	(72.4-127)	--	--	"	
Xylenes (total)	"	2.44	---	0.0504	"	"	0.0406	2.07	116%	(81-122)	--	--	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery: 89.1%*			*Limits: 20.2-131%*	"							*09/28/06 01:46*	

TestAmerica - Anchorage, AK

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Gasoline Range Organics (C6-C10) and BTEX per AK101 - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090110 **Soil Preparation Method: AK101 Field Prep**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (6090110-MSD1)					QC Source: API0083-01								Extracted: 09/27/06 10:27	
Benzene	AK101 GRO/BTEX	0.748	---	0.0134	mg/kg dry	2.7x	0.00281	0.715	104%	(70.6-120)	8.82%	(11.3)	09/28/06 02:19	
Toluene	"	0.739	---	0.0336	"	"	0.0107	0.684	106%	(74.6-120)	7.55%	(11.1)	"	
Ethylbenzene	"	0.810	---	0.0336	"	"	ND	0.687	118%	(72.4-127)	7.72%	(10.6)	"	
Xylenes (total)	"	2.31	---	0.0504	"	"	0.0406	2.07	110%	(81-122)	5.47%	(11.4)	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery: 87.2%*			*Limits: 20.2-131%*	"							*09/28/06 02:19*	

QC Batch: 6090118 **Soil Preparation Method: AK101 Field Prep**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6090118-BLK1)													Extracted: 09/28/06 14:02	
Gasoline Range Organics	AK101 GRO/BTEX	ND	---	3.33	mg/kg wet	1x	--	--	--	--	--	--	09/29/06 17:15	
Benzene	"	ND	---	0.0133	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 73.3%*			*Limits: 50-150%*	"							*09/29/06 17:15*	
a,a,a-TFT (PID)		*67.5%*			*20.2-131%*	"							"	
LCS (6090118-BS1)													Extracted: 09/28/06 14:02	
Gasoline Range Organics	AK101 GRO/BTEX	15.3	---	3.33	mg/kg wet	1x	--	22.0	69.5%	(60-120)	--	--	09/29/06 16:09	
Benzene	"	0.272	---	0.0133	"	"	--	0.328	82.9%	(73.1-117)	--	--	"	
Toluene	"	1.38	---	0.0333	"	"	--	1.66	83.1%	(70.4-117)	--	--	"	
Ethylbenzene	"	0.391	---	0.0333	"	"	--	0.388	101%	(73.3-121)	--	--	"	
Xylenes (total)	"	1.85	---	0.0500	"	"	--	1.91	96.9%	(79-121)	--	--	"	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 80.4%*			*Limits: 50-150%*	"							*09/29/06 16:09*	
a,a,a-TFT (PID)		*76.2%*			*20.2-131%*	"							"	
LCS Dup (6090118-BSD1)													Extracted: 09/28/06 14:02	
Gasoline Range Organics	AK101 GRO/BTEX	15.8	---	3.33	mg/kg wet	1x	--	22.0	71.8%	(60-120)	3.22%	(20)	09/29/06 16:42	
Benzene	"	0.286	---	0.0133	"	"	--	0.328	87.2%	(73.1-117)	5.02%	(12.6)	"	
Toluene	"	1.46	---	0.0333	"	"	--	1.66	88.0%	(70.4-117)	5.63%	(11.4)	"	
Ethylbenzene	"	0.396	---	0.0333	"	"	--	0.388	102%	(73.3-121)	1.27%	(9.89)	"	
Xylenes (total)	"	1.90	---	0.0500	"	"	--	1.91	99.5%	(79-121)	2.67%	(11.1)	"	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 85.0%*			*Limits: 50-150%*	"							*09/29/06 16:42*	
a,a,a-TFT (PID)		*81.7%*			*20.2-131%*	"							"	

TestAmerica - Anchorage, AK

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Gasoline Range Organics (C6-C10) and BTEX per AK101 - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090118 **Soil Preparation Method: AK101 Field Prep**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (6090118-DUP1)				QC Source: API0086-02					Extracted: 09/28/06 14:02					
Gasoline Range Organics	AK101 GRO/BTEX	ND	---	7.84	mg/kg dry	2.25x	ND	--	--	--	22.5%	(50)	09/29/06 18:22	
Surrogate(s): a,a,a-TFT (FID)		*Recovery: 33.4%*			*Limits: 50-150%*	"							*09/29/06 18:22*	*SR-1*
Matrix Spike (6090118-MS1)				QC Source: API0086-02					Extracted: 09/28/06 14:02					
Benzene	AK101 GRO/BTEX	1.44	---	0.0313	mg/kg dry	2.25x	0.00627	1.62	88.5%	(70.6-120)	--	--	09/29/06 18:55	
Toluene	"	1.40	---	0.0784	"	"	0.0135	1.55	89.5%	(74.6-120)	--	--	"	
Ethylbenzene	"	1.61	---	0.0784	"	"	0.0873	1.56	97.6%	(72.4-127)	--	--	"	
Xylenes (total)	"	4.67	---	0.118	"	"	0.329	4.68	92.8%	(81-122)	--	--	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery: 26.2%*			*Limits: 20.2-131%*	"							*09/29/06 18:55*	
Matrix Spike Dup (6090118-MSD1)				QC Source: API0086-02					Extracted: 09/28/06 14:02					
Benzene	AK101 GRO/BTEX	1.32	---	0.0313	mg/kg dry	2.25x	0.00627	1.62	81.1%	(70.6-120)	8.70%	(11.3)	09/29/06 20:34	
Toluene	"	1.32	---	0.0784	"	"	0.0135	1.55	84.3%	(74.6-120)	5.88%	(11.1)	"	
Ethylbenzene	"	1.48	---	0.0784	"	"	0.0873	1.56	89.3%	(72.4-127)	8.41%	(10.6)	"	
Xylenes (total)	"	4.36	---	0.118	"	"	0.329	4.68	86.1%	(81-122)	6.87%	(11.4)	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery: 24.3%*			*Limits: 20.2-131%*	"							*09/29/06 20:34*	

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090096 **Soil Preparation Method: EPA 3545**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6090096-BLK1)								Extracted: 09/25/06 07:36						
Diesel Range Organics	AK102/103	ND	---	25.0	mg/kg wet	1x	--	--	--	--	--	--	09/25/06 23:17	
Residual Range Organics	"	ND	---	50.0	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 90.6%*			*Limits: 50-150%*	"							*09/25/06 23:17*	
Triacontane		*93.8%*			*50-150%*	"							"	
LCS (6090096-BS1)								Extracted: 09/25/06 07:36						
Diesel Range Organics	AK102/103	105	---	25.0	mg/kg wet	1x	--	126	83.3%	(75-125)	--	--	09/25/06 22:44	
Residual Range Organics	"	115	---	50.0	"	"	--	"	91.3%	(60-120)	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 74.8%*			*Limits: 60-120%*	"							*09/25/06 22:44*	
Triacontane		*88.3%*			*60-120%*	"							"	
LCS Dup (6090096-BSD1)								Extracted: 09/25/06 07:36						
Diesel Range Organics	AK102/103	106	---	25.0	mg/kg wet	1x	--	126	84.1%	(75-125)	0.948%	(20)	09/25/06 22:12	
Residual Range Organics	"	116	---	50.0	"	"	--	"	92.1%	(60-120)	0.866%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 74.8%*			*Limits: 60-120%*	"							*09/25/06 22:12*	
Triacontane		*89.1%*			*60-120%*	"							"	
Duplicate (6090096-DUP1)					QC Source: API0084-01			Extracted: 09/25/06 07:36						
Diesel Range Organics	AK102/103	ND	---	25.0	mg/kg dry	1x	ND	--	--	--	3.10%	(20)	09/26/06 01:58	
Residual Range Organics	"	ND	---	50.0	"	"	ND	--	--	--	67.0%	"	"	RP-4
Surrogate(s): 1-Chlorooctadecane		*Recovery: 82.2%*			*Limits: 50-150%*	"							*09/26/06 01:58*	
Triacontane		*82.8%*			*50-150%*	"							"	
Matrix Spike (6090096-MS1)					QC Source: API0084-02			Extracted: 09/25/06 07:36						
Diesel Range Organics	AK102/103	116	---	25.0	mg/kg dry	1x	2.09	138	82.5%	(75-125)	--	--	09/26/06 03:35	
Residual Range Organics	"	117	---	50.0	"	"	2.58	"	82.9%	(60-150)	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 85.5%*			*Limits: 50-150%*	"							*09/26/06 03:35*	
Triacontane		*82.7%*			*50-150%*	"							"	
Matrix Spike Dup (6090096-MSD1)					QC Source: API0084-02			Extracted: 09/25/06 07:36						
Diesel Range Organics	AK102/103	118	---	25.0	mg/kg dry	1x	2.09	138	84.0%	(75-125)	1.71%	(25)	09/26/06 04:07	
Residual Range Organics	"	120	---	50.0	"	"	2.58	"	85.1%	(60-150)	2.53%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 87.4%*			*Limits: 50-150%*	"							*09/26/06 04:07*	
Triacontane		*83.5%*			*50-150%*	"							"	

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results

TestAmerica - Anchorage, AK

QC Batch: 6090097 **Soil Preparation Method: *** DEFAULT PREP**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (6090097-DUP1)					**QC Source: API0084-01**								**Extracted: 09/25/06 07:38**	
Dry Weight	TA-AK-FLS-005-R01	95.1	—	1.00	%	1x	94.5	--	--	—	0.633%	(25)	09/26/06 07:14	

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results

TestAmerica - Spokane, WA

QC Batch: 6090196 **Soil Preparation Method: EPA 3550B**

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6090196-BLK1)							Extracted: 09/26/06 07:39							
1-Methylnapthalene	EPA 8270 mod	ND	—	0.0100	mg/kg wet	1x	--	--	--	--	--	--	09/28/06 15:33	
2-Methylnaphthalene	"	ND	—	0.0100	"	"	--	--	--	--	--	--	"	
Acenaphthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Acenaphthylene	"	ND	—	0.0100	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	—	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0100	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	—	0.0100	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	—	0.0100	"	"	--	--	--	--	--	--	"	
Surrogate(s): Nitrobenzene-d5		*Recovery: 59.2%*			*Limits: 36.3-138%*	"							*09/28/06 15:33*	
2-FBP		*76.6%*			*23.3-147%*	"							"	
p-Terphenyl-d14		*86.2%*			*38.6-142%*	"							"	
LCS (6090196-BS1)							Extracted: 09/26/06 07:39							
Chrysene	EPA 8270 mod.	0.139	—	0.0100	mg/kg wet	1x	--	0.167	83.2%	(40.8-153)	--	--	09/28/06 16:02	
Fluorene	"	0.137	---	0.0100	"	"	--	"	82.0%	(60.6-135)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	0.140	---	0.0100	"	"	--	"	83.8%	(37.8-135)	--	--	"	
Naphthalene	"	0.101	---	0.0100	"	"	--	"	60.5%	(46.3-135)	--	--	"	
Surrogate(s): Nitrobenzene-d5		*Recovery: 58.6%*			*Limits: 36.3-138%*	"							*09/28/06 16:02*	
2-FBP		*82.6%*			*23.3-147%*	"							"	
p-Terphenyl-d14		*104%*			*38.6-142%*	"							"	

TestAmerica - Anchorage, AK

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results

TestAmerica - Spokane, WA

QC Batch: 6090196 **Soil Preparation Method: EPA 3550B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (6090196-MS1)					QC Source: SPI0146-01				Extracted: 09/26/06 07:39					
Chrysene	EPA 8270 mod	0.158	---	0.0110	mg/kg dry	1x	ND	0.183	86.3%	(38.5-135)	--	--	09/28/06 16:32	
Fluorene	"	0.160	---	0.0110	"	"	ND	"	87.4%	(47.6-135)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	0.181	---	0.0110	"	"	ND	"	98.9%	(37.8-135)	--	--	"	
Naphthalene	"	0.130	---	0.0110	"	"	ND	"	71.0%	(46.3-135)	--	--	"	
Surrogate(s): Nitrobenzene-d5		*Recovery: 85.0%*			*Limits: 36.3-138%*	"							*09/28/06 16:32*	
2-FBP		*96.2%*			*23.3-147%*	"							"	
p-Terphenyl-d14		*112%*			*38.6-142%*	"							"	
Matrix Spike Dup (6090196-MSD1)					QC Source: SPI0146-01				Extracted: 09/26/06 07:39					
Chrysene	EPA 8270 mod	0.172	---	0.0110	mg/kg dry	1x	ND	0.170	101%	(38.5-135)	8.48%	(25)	10/04/06 00:19	
Fluorene	"	0.176	---	0.0110	"	"	ND	"	104%	(47.6-135)	9.52%	"	"	
Indeno (1,2,3-cd) pyrene	"	0.198	---	0.0110	"	"	ND	"	116%	(37.8-135)	8.97%	"	"	
Naphthalene	"	0.164	---	0.0110	"	"	ND	"	96.5%	(46.3-135)	23.1%	"	"	
Surrogate(s): Nitrobenzene-d5		*Recovery: 116%*			*Limits: 36.3-138%*	"							*10/04/06 00:19*	
2-FBP		*119%*			*23.3-147%*	"							"	
p-Terphenyl-d14		*107%*			*38.6-142%*	"							"	

TestAmerica - Anchorage, AK

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DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Conventional Chemistry Parameters by APHA/EPA Methods - Laboratory Quality Control Results

TestAmerica - Seattle, WA

QC Batch: 6J06056 **Soil Preparation Method: General Preparation**

Analyte	Method	Result	MDL^	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6J06056-BLK1)							Extracted: 10/06/06 16:59							
Total Organic Carbon	EPA 9060 mod	ND	---	1000	mg/kg wet	1x	--	--	--	--	--	--	10/06/06 16:59	
LCS (6J06056-BS1)							Extracted: 09/13/06 18:10							
Total Organic Carbon	EPA 9060 mod	30200	---	1000	mg/kg wet	1x	--	29900	101%	(72-130)	--	--	10/06/06 17:07	
Duplicate (6J06056-DUP1)							QC Source: BPI0290-03		Extracted: 10/05/06 18:10					
Total Organic Carbon	EPA 9060 mod	1120	---	1040	mg/kg dry	1x	1740	--	--	--	43.4%	(35)	10/06/06 17:20	Q-14
Duplicate (6J06056-DUP2)							QC Source: API0086-01		Extracted: 10/03/06 18:10					
Total Organic Carbon	EPA 9060 mod	147000	---	2290	mg/kg dry	1x	128000	--	--	--	13.8%	(35)	10/06/06 17:50	
Duplicate (6J06056-DUP3)							QC Source: BPI0765-01		Extracted: 10/03/06 18:10					
Total Organic Carbon	EPA 9060 mod	245000	---	2310	mg/kg dry	1x	191000	--	--	--	24.8%	(35)	10/06/06 18:51	
Matrix Spike (6J06056-MS1)							QC Source: BPI0290-03		Extracted: 10/05/06 18:10					
Total Organic Carbon	EPA 9060 mod	2840	---	1040	mg/kg dry	1x	1740	2540	43.3%	(40-160)	--	--	10/06/06 17:28	

TestAmerica - Anchorage, AK

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ANALYTICAL TESTING CORPORATION

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210

DMC Technologies	Project Name:	**Petersburg Depot**	
3528 W. Hgwy. 33	Project Number:	SEC PET- CP - 01	Report Created:
Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results

TestAmerica - Seattle, WA

QC Batch: 6J09049 **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL^A	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6J09049-BLK1)							**Extracted: 10/09/06 18:00**							
Dry Weight	BSOPSPL00 3R08	100	---	1.00	%	1x	--	--	--	--	--	--	10/10/06 00:00	

Jennifer L. Poppe, Chemist I

TestAmerica
ANALYTICAL TESTING CORPORATION

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ANCHORAGE, AK 99502-1119
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Rexburg, ID/USA 83440	Project Manager:	Dan McNair	10/10/06 20:33

Notes and Definitions

Report Specific Notes:

I	-	Internal Standard recovery was outside of method limits. Matrix interference was confirmed by reanalysis.
Q-14	-	Visual examination indicates the RPD and/or matrix spike recovery is outside the control limit due to a non-homogeneous sample matrix.
RP-4	-	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
S-12	-	Low surrogate recovery confirmed by rerun.
SR-1	-	Surrogate recovery was below the acceptance limits.

Laboratory Reporting Conventions:

DET	-	Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
ND	-	Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
NR/NA	-	Not Reported / Not Available
dry	-	Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
wet	-	Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
RPD	-	RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
MRL	-	METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
MDL*	-	METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
Dil	-	Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
Reporting Limits	-	Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
Electronic Signature	-	Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Jennifer L. Poppe, Chemist I

ATTACHMENT C
ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION CONCEPTUAL SITE MODEL

Biopile Treatment and Sampling
ConocoPhillips Site No. 0923
703 South Nordic Drive
Petersburg, Alaska
SECOR PN No.: 01CP.00923.05
March 5, 2007

Human Health Conceptual Site Model
Scoping Form

Site Name: ConocoPhillips Site No. 923 (Former Tosco Bulk Plant No. 058

File Number: 4823-325-00

Completed by: Katlin Hanson

Introduction

The form should be used to reach agreement with the Alaska Department of Environmental Conservation (DEC) about which exposure pathways should be further investigated during site characterization. From this information, a CSM graphic and text must be submitted with the site characterization work plan.

General Instructions: Follow the italicized instructions in each section below.

1. General Information:

Sources *(check potential sources at the site)*

- ☐ USTs
- ☑ ASTs
- ☑ Dispensers/fuel loading racks
- ☐ Drums
- ☐ Vehicles
- ☐ Landfills
- ☐ Transformers
- ☐ Other: _____

Release Mechanisms *(check potential release mechanisms at the site)*

- ☐ Spills
- ☑ Leaks
- ☐ Direct discharge
- ☐ Burning
- ☐ Other: _____

Impacted Media *(check potentially-impacted media at the site)*

- ☐ Surface soil (0-2 feet bgs*)
- ☑ Subsurface Soil (>2 feet bgs)
- ☐ Air
- ☐ Groundwater
- ☐ Surface water
- ☐ Other: _____

Receptors *(check receptors that could be affected by contamination at the site)*

- ☑ Residents (adult or child)
- ☑ Commercial or industrial worker
- ☑ Construction worker
- ☐ Subsistence harvester (i.e., gathers wild foods)
- ☐ Subsistence consumer (i.e., eats wild foods)
- ☑ Site visitor
- ☑ Trespasser
- ☐ Recreational user
- ☐ Farmer
- ☐ Other: _____

* bgs – below ground surface

2. Exposure Pathways: *(The answers to the following questions will identify complete exposure pathways at the site. Check each box where the answer to the question is "yes".)*

a) Direct Contact –

1 Incidental Soil Ingestion

Is soil contaminated anywhere between 0 and 15 feet bgs? ☑

Do people use the site or is there a chance they will use the site in the future? ☑

If both boxes are checked, label this pathway complete: complete

2 Dermal Absorption of Contaminants from Soil

Is soil contaminated anywhere between 0 and 15 feet bgs? ☑

Do people use the site or is there a chance they will use the site in the future? ☑

Can the soil contaminants permeate the skin? (Contaminants listed below, or within the groups listed below, should be evaluated for dermal absorption). ☐

Arsenic	Lindane
Cadmium	PAHs
Chlordane	Pentachlorophenol
2,4-dichlorophenoxyacetic acid	PCBs
Dioxins	SVOCs
DDT	

If all of the boxes are checked, label this pathway complete: complete

b) Ingestion –

1 Ingestion of Groundwater

Have contaminants been detected or are they expected to be detected in the groundwater, OR are contaminants expected to migrate to groundwater in the future? ☐

Could the potentially affected groundwater be used as a current or future drinking water source? *Please note, only leave the box unchecked if ADEC has determined the groundwater is not a currently or reasonably expected future source of drinking water according to 18 AAC 75.350.* ☐

If both the boxes are checked, label this pathway complete: _____

2 Ingestion of Surface Water

Have contaminants been detected or are they expected to be detected in surface water OR are contaminants expected to migrate to surface water in the future? ☐

Could potentially affected surface water bodies be used, currently or in the future, as a drinking water source? *Consider both public water systems and private use (i.e., during residential, recreational or subsistence activities).* ☐

If both boxes are checked, label this pathway complete: _____

3 Ingestion of Wild Foods

Is the site in an area that is used or reasonably could be used for hunting, fishing, or harvesting of wild food? ☐

Do the site contaminants have the potential to bioaccumulate (*see* Appendix A)? ☐

Are site contaminants located where they would have the potential to be taken up into biota? (i.e. the top 6 feet of soil, in groundwater that could be connected to surface water, etc.) ☐

If all of the boxes are checked, label this pathway complete: _____

c) Inhalation

1 Inhalation of Outdoor Air

Is soil contaminated anywhere between 0 and 15 feet bgs? ☑

Do people use the site or is there a chance they will use the site in the future? ☑

Are the contaminants in soil volatile (*See Appendix B*)? ☑

If all of the boxes are checked, label this pathway complete: complete

2 Inhalation of Indoor Air

Are occupied buildings on the site or reasonably expected to be placed on the site in an area that could be affected by contaminant vapors? (i.e., within 100 feet, horizontally or vertically, of the contaminated soil or groundwater, or subject to "preferential pathways" that promote easy airflow, like utility conduits or rock fractures) ☐

Are volatile compounds present in soil or groundwater (*See Appendix C*)? ☑

If both boxes are checked, label this pathway complete: complete

3. Additional Exposure Pathways: *(Although there are no definitive questions provided in this section, these exposure pathways should also be considered at each site. Use the guidelines provided below to determine if further evaluation of each pathway is warranted.)*

Dermal Exposure to Contaminants in Groundwater and Surface Water

Exposure from this pathway may need to be assessed only in cases where DEC water-quality or drinking-water standards are not being applied as cleanup levels. Examples of conditions that may warrant further investigation include:

- Climate permits recreational use of waters for swimming,
- Climate permits exposure to groundwater during activities, such as construction, without protective clothing, or
- Groundwater or surface water is used for household purposes.

Check the box if further evaluation of this pathway is needed: ☐

Comments:

Inhalation of Volatile Compounds in Household Water

Exposure from this pathway may need to be assessed only in cases where DEC water-quality or drinking-water standards are not being applied as cleanup levels. Examples of conditions that may warrant further investigation include:

- The contaminated water is used for household purposes such as showering, laundering, and dish washing, and
- The contaminants of concern are volatile (common volatile contaminants are listed in Appendix B)

Check the box if further evaluation of this pathway is needed: ☐

Comments:

Inhalation of Fugitive Dust

Generally DEC soil ingestion cleanup levels in Table B1 of 18 AAC 75 are protective of this pathway, although this is not true in the case of chromium. Examples of conditions that may warrant further investigation include:

- Nonvolatile compounds are found in the top 2 centimeters of soil. The top 2 centimeters of soil are likely to be dispersed in the wind as dust particles.
- Dust particles are less than 10 micrometers. This size can be inhaled and would be of concern for determining if this pathway is complete.

Check the box if further evaluation of this pathway is needed: ☐

Comments:

Direct Contact with Sediment

This pathway involves people's hands being exposed to sediment, such as during recreational or some types of subsistence activities. People then incidentally ingest sediment from normal hand-to-mouth activities. In addition, dermal absorption of contaminants may be of concern if people come in contact with sediment and the contaminants are able to permeate the skin (see dermal exposure to soil section). This type of exposure is rare but it should be investigated if:

- Climate permits recreational activities around sediment, and/or
- Community has identified subsistence or recreational activities that would result in exposure to the sediment, such as clam digging.

ADEC soil ingestion cleanup levels are protective of direct contact with sediment. If they are determined to be over-protective for sediment exposure at a particular site, other screening levels could be adopted or developed.

Check the box if further evaluation of this pathway is needed: ☐

Comments:

4. Other Comments (*Provide other comments as necessary to support the information provided in this form.)*

APPENDIX A

BIOACCUMULATIVE COMPOUNDS

Table A-1: List of Compounds of Potential Concern for Bioaccumulation
Organic compounds are identified as bioaccumulative if they have a BCF equal to or greater than 1,000 or a log K_{ow} greater than 3.5. Inorganic compounds are identified as bioaccumulative if they are listed as such by EPA (2000). Those compounds in Table X of 18 AAC 75.345 that are bioaccumulative, based on the definition above, are listed below.

Aldrin	DDT	Lead
Arsenic	Dibenzo(a,h)anthracene	Mercury
Benzo(a)anthracene	Dieldrin	Methoxychlor
Benzo(a)pyrene	Dioxin	Nickel
Benzo(b)fluoranthene	Endrin	PCBs
Benzo(k)fluoranthene	Fluoranthene	
Cadmium	Heptachlor	Pyrene
Chlordane	Heptachlor epoxide	Selenium
Chrysene	Hexachlorobenzene	Silver
Copper	Hexachlorocyclopentadiene	Toxaphene
DDD	Indeno(1,2,3-c,d)pyrene	Zinc
DDE		

Because BCF values can relatively easily be measured or estimated, the BCF is frequently used to determine the potential for a chemical to bioaccumulate. A compound with a BCF greater than 1,000 is considered to bioaccumulate in tissue (EPA 2004b).

For inorganic compounds, the BCF approach has not been shown to be effective in estimating the compound's ability to bioaccumulate. Information available, either through scientific literature or site-specific data, regarding the bioaccumulative potential of an inorganic site contaminant should be used to determine if the pathway is complete.

The list was developed by including organic compounds that either have a BCF equal to or greater than 1,000 or a log K_{ow} greater than 3.5 and inorganic compounds that are listed by the United States Environmental Protection Agency (EPA) as being bioaccumulative (EPA 2000). The BCF can also be estimated from a chemical's physical and chemical properties. A chemical's octanol-water partitioning coefficient (K_{ow}) along with defined regression equations can be used to estimate the BCF. EPA's Persistent, Bioaccumulative, and Toxic (PBT) Profiler (EPA 2004) can be used to estimate the BCF using the K_{ow} and linear regressions presented by Meylan et al. (1996). The PBT Profiler is located at http://www.pbtprofiler.net/. For compounds not found in the PBT Profiler, DEC recommends using a log K_{ow} greater than 3.5 to determine if a compound is bioaccumulative.

APPENDIX B

VOLATILE COMPOUNDS

Table B-1: List of Volatile Compounds of Potential Concern
Common volatile contaminants of concern at contaminated sites. A chemical is defined as volatile if the Henry's Law constant is 1 x 10^{-5} atm-m^3/mol or greater and the molecular weight less than 200 g/mole (g/mole; EPA 2004a). Those compounds in Table X of 18 AAC 75.345 that are volatile, based on the definition above, are listed below.

Acenaphthene	1,4-dichlorobenzene	Pyrene
Acetone	1,1-dichloroethane	Styrene
Anthracene	1,2-dichloroethane	1,1,2,2-tetrachloroethane
Benzene	1,1-dichloroethylene	Tetrachloroethylene
Bis(2-chlorethyl)ether	Cis-1,2-dichloroethylene	Toluene
Bromodichloromethane	Trans-1,2-dichloroethylene	1,2,4-trichlorobenzene
Carbon disulfide	1,2-dichloropropane	1,1,1-trichloroethane
Carbon tetrachloride	1,3-dichloropropane	1,1,2-trichloroethane
Chlorobenzene	Ethylbenzene	Trichloroethylene
Chlorodibromomethane	Fluorene	Vinyl acetate
Chloroform	Methyl bromide	Vinyl chloride
2-chlorophenol	Methylene chloride	Xylenes
Cyanide	Naphthalene	GRO
1,2-dichlorobenzene	Nitrobenzene	DRO

APPENDIX C

COMPOUNDS OF CONCERN FOR VAPOR MIGRATION

Table C-1: List of Compounds of Potential Concern for the Vapor Migration

A chemical is considered sufficiently toxic if the vapor concentration of the pure component poses an incremental lifetime cancer risk greater than 10-6 or a non-cancer hazard index greater than 1. A chemical is considered sufficiently volatile if it's Henry's Law constant is 1×10^{-5} atm-m^3/mol or greater.

Acenaphthene	Dibenzofuran	Hexachlorobenzene
Acetaldehyde	1,2-Dibromo-3-chloropropane	Hexachlorocyclopentadiene
Acetone	1,2-Dibromoethane (EDB)	Hexachloroethane
Acetonitrile	1,3-Dichlorobenzene	Hexane
Acetophenone	1,2-Dichlorobenzene	Hydrogen cyanide
Acrolein	1,4-Dichlorobenzene	Isobutanol
Acrylonitrile	2-Nitropropane	Mercury (elemental)
Aldrin	N-Nitroso-di-n-butylamine	Methacrylonitrile
alpha-HCH (alpha-BHC)	n-Propylbenzene	Methoxychlor
Benzaldehyde	o-Nitrotoluene	Methyl acetate
Benzene	o-Xylene	Methyl acrylate
Benzo(b)fluoranthene	p-Xylene	Methyl bromide
Benzylchloride	Pyrene	Methyl chloride chloromethane)
beta-Chloronaphthalene	sec-Butylbenzene	Methylcyclohexane
Biphenyl	Styrene	Methylene bromide
Bis(2-chloroethyl)ether	tert-Butylbenzene	Methylene chloride
Bis(2-chloroisopropyl)ether	1,1,1,2-Tetrachloroethane	Methylethylketone (2-butanone)
Bis(chloromethyl)ether	1,1,2,2-Tetrachloroethane	Methylisobutylketone
Bromodichloromethane	Tetrachloroethylene	Methylmethacrylate
Bromoform	Dichlorodifluoromethane	2-Methylnaphthalene
1,3-Butadiene	1,1-Dichloroethane	MTBE
Carbon disulfide	1,2-Dichloroethane	m-Xylene
Carbon tetrachloride	1,1-Dichloroethylene	Naphthalene
Chlordane	1,2-Dichloropropane	n-Butylbenzene
2-Chloro-1,3-butadiene (chloroprene)	1,3-Dichloropropene	Nitrobenzene
Chlorobenzene	Dieldrin	Toluene
1-Chlorobutane	Endosulfan	trans-1,2-Dichloroethylene
Chlorodibromomethane	Epichlorohydrin	1,1,2-Trichloro-1,2,2-trifluoroethane
Chlorodifluoromethane	Ethyl ether	1,2,4-Trichlorobenzene
Chloroethane (ethyl chloride)	Ethylacetate	1,1,2-Trichloroethane
Chloroform	Ethylbenzene	1,1,1-Trichloroethane
2-Chlorophenol	Ethylene oxide	Trichloroethylene
2-Chloropropane	Ethylmethacrylate	Trichlorofluoromethane
Chrysene	Fluorene	1,2,3-Trichloropropane
cis-1,2-Dichloroethylene	Furan	1,2,4-Trimethylbenzene
Crotonaldehyde (2-butenal)	Gamma-HCH (Lindane)	1,3,5-Trimethylbenzene
Cumene	Heptachlor	Vinyl acetate
DDE	Hexachloro-1,3-butadiene	Vinyl chloride (chloroethene)

Source: EPA 2002.

HUMAN HEALTH CONCEPTUAL SITE MODEL

Site: ConocoPhillips #923 (Former Tosco Bulk Plant No. 581)

Completed By: Katlin Hanson

Date Completed: 8-15-06

Follow the directions below. Do not consider engineering or land use controls when describing pathways.

(1) *Check the media that could be directly affected by the release.*

(2) *For each medium identified in (1), follow the top arrow and check possible transport mechanisms. Briefly list other mechanisms or reference the report for details.*

(3) *Check exposure media identified in (2).*

(4) *Check exposure pathways that are complete or need further evaluation. The pathways identified must agree with Sections 2 and 3 of the CSM Scoping Form.*

(5) *Identify the receptors potentially affected by each exposure pathway: Enter "C" for current receptors, "F" for future receptors, or "C/F" for both current and future receptors.*

Media	Transport Mechanisms	Exposure Media	Exposure Pathways	Current & Future Receptors: Residents (adults or children)	Commercial or Industrial Workers	Site Visitors, Trespassers or Recreational Users	Construction Workers	Persons or Subsistence Harvesters	Subsistence consumers	Other
☐ Surface Soil (0-2 ft bgs)	☐ Migration or leaching to subsurface ☐ Migration or leaching to groundwater ☐ Volatilization ☐ Runoff or erosion ☐ Uptake by plants or animals ☐ Other (list):	☐ soil	☐ Incidental Soil Ingestion ☐ Dermal Absorption of Contaminants from Soil							
☑ Subsurface Soil (2-15 ft bgs)	☐ Migration to groundwater ☑ Volatilization ☐ Other (list):	☐ groundwater	☐ Ingestion of Groundwater ☐ Dermal Absorption of Contaminants in Groundwater ☐ Inhalation of Volatile Compounds in Tap Water							
☐ Ground-water	☐ Volatilization ☐ Flow to surface water body ☐ Flow to sediment ☐ Uptake by plants or animals ☐ Other (list):	☑ air	☑ Inhalation of Outdoor Air ☑ Inhalation of Indoor Air ☐ Inhalation of Fugitive Dust	C/F F	C/F F	C/F	C/F			
☐ Surface Water	☐ Volatilization ☐ Sedimentation ☐ Uptake by plants or animals ☐ Other (list):	☐ surface water	☐ Ingestion of Surface Water ☐ Dermal Absorption of Contaminants in Surface Water ☐ Inhalation of Volatile Compounds in Tap Water							
☑ Sediment	☐ Resuspension, runoff, or erosion ☐ Uptake by plants or animals ☐ Other (list):	☐ sediment	☐ Direct Contact with Sediment							
		☑ biota	☑ Ingestion of Wild Foods					F	F	

Revised 3/21/06

ATTACHMENT D
ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION LABORATORY DATA REVIEW

Biopile Treatment and Sampling
ConocoPhillips Site No. 0923
703 South Nordic Drive
Petersburg, Alaska
SECOR PN No.: 01CP.00923.05
March 5, 2007

Review of Data Quality Objectives for Former Tosco Plant in Petersburg, Alaska

Compared to ADEC QA requirements (ADEC 10/06)

1) Report lists all items in Item 1.
2) Report on lab report.
3) **No Case Narrative as required.**
4) Includes types of analysis.
5) No extraction method listed at sample level (LISTED IN SUMMARY IN QA SECTION).
6) Matrix listed.
7) Sample Number listed.
8) Lab Sample listed.
9) Date Sampled listed.
10) Date/Time received NOT listed.
11) Date prepared for analysis (extraction) listed.
12) Date Analyzed listed.
13) Project Name listed.
14) Applicable Units and MRLS provided.
15) Dilution Factor listed.
16) Lab person is listed with signature.
17) Definitions listed on last page of report (ok).
18) Listed in QA Section.
19) Precision and Accuracy listed In QA Section for LCS and RPD.
20) Test America Cooler Receipt Form lists all key parameters, including Temperature of samples at receipt time.
21) COC included.

Note: Consultant must also include a completed QA Checklist (attached) and write a QC Summary Section.

Laboratory Data Review Checklist

1. Laboratory

   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?
   (X) 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?
   (X) Yes ( ) No Comments:

2. Chain of Custody (COC)

   a. COC information completed, signed, and dated (including released/received by)?
   ( ) Yes (X) No Comments:
   Date/time received Not indicated. Shown on Lab report.

   b. Correct analyses requested?
   (X) Yes ( ) No Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?
   (X) Yes ( ) No Comments:

   b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?
   (X) Yes ( ) No Comments:

   c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?
   (X) 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:

e. Data quality or usability affected? Explain.

Comments:

4. Case Narrative

a. Present and understandable?

○ Yes ◉ No Comments:

None provided. Details in 'notes' section

b. Discrepancies, errors or QC failures identified by the lab?

○ Yes ◉ No Comments:

c. Were all corrective actions documented?

○ Yes ○ No Comments:

Not required

d. What is the effect on data quality/usability according to the case narrative?

Comments:

not required

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:

Cleanup levels not currently specified

e. Data quality or usability affected? Explain.

Comments:

N/A

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:

N/A

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:

N/A

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples?

(X) Yes ( ) No Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

(X) 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)

(X) Yes ( ) No Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

M.S. (X) Yes (X) No Comments:

6090017 Dup 1

v. If %R or RPD is outside of acceptable limits, what samples are affected?

M.S. Comments:

N/A Samples indicated in lab report with Flag qualifier

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

(X) Yes (X) No M.S. Comments:

vii. Data quality or usability affected? Explain.

M.S. Comments:

N/A Usability unaffected based on review of lab flags.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

(X) 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)

(X) Yes ( ) No Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

(X) Yes ( ) No Comments:

iv. Data quality or usability affected? Explain.

Comments:

usability unaffected based on flag explanations

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and cooler?

(X) Yes ( ) No Comments:

ii. All results less than PQL?

(X) Yes ( ) No Comments:

iii. If above PQL, what samples are affected?

Comments:

N/A

iv. Data quality or usability affected? Explain.

Comments:

N/A

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

(X) Yes ( ) No Comments:

ii. Submitted blind to lab?

(X) 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

(X) Yes ( ) No Comments:

iv. Data quality or usability affected? Explain.

Comments:

f. Decontamination or Equipment Blank (if applicable)

( ) Yes ( ) No (X) 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?

(X) Yes ( ) No Comments:

Completed by:	MARC SAUZE
Title:	SENIOR PROJECT ENGINEER
Date:	10/31/06
CS Report Name:	BIOPILE TREATMENT AND SAMPLING REPORT- CONOCOPHILLIPS SITE NO. 0923
Report Date:	3/5/07
Consultant Firm:	SECOR INTERNATIONAL, INC.
Laboratory Name:	TestAmerica Analytical Testing Corporation
Laboratory Report Number:	API 0078
ADEC File Number:	
ADEC RecKey Number:	