



**FINAL REPORT
FORMER STEAM SHACK AREA REMEDIATION
AND GROUNDWATER MONITORING**

FORMER WARD'S COVE PACKING FACILITY

CRAIG, ALASKA

November 3, 2004

Prepared For:

AIG Consultants, Inc. - Environmental Management Division

Submitted By:

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San Mateo, California 94402

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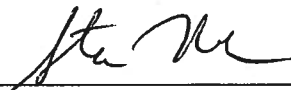
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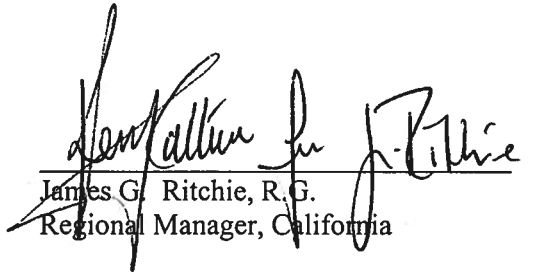
**FINAL REPORT
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AND GROUNDWATER MONITORING**

FORMER WARD'S COVE PACKING FACILITY

This Former Steam Shack Area Remediation and Groundwater Monitoring Report, dated November 3, 2004 was prepared by and under the supervision and direction of the undersigned.



Steve Nelson, R.G.
Senior Hydrogeologist



James G. Ritchie, R.G.
Regional Manager, California

This document was prepared on behalf of AIGC-EM. No other party should rely on the information contained herein without prior written consent of SLR International Corp and AIGC-EM. The conclusions, recommendations, and interpretations in this report are based in part on information contained in other documents and sources, as cited in the text. Therefore, this report is also subject to the limitations of the cited documents and sources.

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1.0 INTRODUCTION

In support of the May 7, 2004 Work Plan (Work Plan), prepared by AIG Consultants, Inc. – Environmental Management Division (AIGC-EM) and approved by the Alaska Department of Environmental Conservation (ADEC) on July 12, 2004, SLR International Corp (SLR) conducted an investigation and remediation of the former Ward's Cove Packing (WCP) Facility in Craig, Alaska (the Site). SLR furthermore prepared a plan to treat and discharge water encountered during the proposed remedial activities (August 4, 2004 *Amended Narrative, Groundwater Extraction, Treatment, and Discharge*, referred to as the Water Treatment Plan), which ADEC approved on August 5, 2004. SLR and AIGC-EM conducted the described activities from August 16 to 23, 2004. This *Former Steam Shack Area Remediation and Groundwater Monitoring Report* (Report) documents the work performed in accordance with the Work Plan.

The objectives of the scope of work described in the Work Plan were to confirm the results of previous Site assessments, investigate the nature and extent of Diesel Range Organics (DRO), Residual Range Organics (RRO), and Polynuclear Aromatic Hydrocarbons (PAHs) in soil at the former Steam Shack area, assess current groundwater quality conditions at the Site, and remediate soil impacted by DRO, RRO, and PAH concentrations in excess of applicable cleanup levels at the former Steam Shack area. The results of the work will be used to determine if subsequent cleanup and/or, monitoring are needed and to support closure decisions at the Site.

This document consists of the following Sections:

- Section 2.0 Site History and Current Conditions
- Section 3.0 Site Assessment and Remediation Activities
- Section 4.0 Site Assessment and Remediation Results
- Section 5.0 Summary and Conclusions

2.0 SITE HISTORY AND CURRENT CONDITIONS

2.1 Site Setting

The Work Plan and the December 31, 2003 *Final Report, Site Assessment and Remediation, Former Ward's Cove Packing Facility*, describe the Site and environmental setting, historical Site uses, potential releases of chemicals at the Site, and previous environmental investigation and remediation results. The Site is located at 302 Main Street in Craig, Alaska, on the western shoreline of Prince of Wales Island in southeastern Alaska (Figure 1). The Site lies west of the commercial/retail downtown district of Craig and south of the shoreline of Bucareli Bay. The approximate Site elevation ranges from 5 to 25 feet above mean sea level. Surface topography at the Site generally slopes in a northerly direction toward Bucareli Bay. The Site receives more than 100 inches of rainfall annually.

The Site is directly bordered by the Klawock Inlet to the north and west. The eastern property boundary borders the downtown Craig's retail/business district. To the south, the property is bordered by Main Street, and across the street are a residential area, small school, and Public Works Sewer Pump Station.

The Site contains several structures previously used as office space, storage, bunk houses, a mess hall, and staff housing. Former features on the property have included the Chevron above-ground storage tank (AST) fuel farm, a secondary AST storage area, a pump house, truck trailer loading racks (TTLR), above-grade piping, a pipeline corridor which extended to a boat fueling dock, and a shack (the former Steam Shack) containing a steam donkey engine. A portion of the Site is designated the Lower Yard Area, which is the undeveloped area east of the buildings and north of the former Steam Shack area. A Site Plan is included as Figure 1.

2.2 Site History

The Site is currently owned by WCP. Prior to WCP purchasing the property, the land was previously used as a fish cannery starting in the early 1920s. The cannery was owned by a Mr. Laidenberger and was subsequently purchased by Ms. Libby McNeill. WCP purchased the real estate from Ms. McNeill in 1959. Background documents indicate that the bulk fuel storage facility was constructed by Chevron in the 1930s and operated by Chevron until 1986 when Ingram Oil temporarily assumed operation of the facility for one year. In 1987, White Pass assumed operation of the facility until 1995, when Harbor Enterprises, assumed control, doing business as (d.b.a.) Petro Marine. Harbor Enterprises operated the facility from 1995 until it was decommissioned in 1999.

Environmental assessment and remediation activities performed from 1987 to 2003 included the installation of twenty-two groundwater monitoring wells at the Site, eight of which have apparently been decommissioned or abandoned. Two additional wells were installed in 2003 and two wells were abandoned by excavation during the scope of work described in this Report. Figure 2 shows the location of the fourteen existing and two recently-abandoned groundwater monitoring wells at the Site.

2.3 Site Conditions

2.3.1 Soil

The Site and vicinity are underlain by gravelly sand with silt fill, which covers native sand, silt and clay. The fill thickness varies beneath the Site, ranging from 0 to approximately 10 feet. The native soil consists of silt and sand with organic and woody debris, and one- to two-foot-thick layers of blue clay. Bedrock consisting of slate and sandstone underlies the fill and native soil deposits.

2.3.2 Groundwater

Groundwater occurs at depths of 1 to 10 feet below ground surface (bgs). Groundwater perches above the clay layers in native soil and saturates a portion of the fill unit. Groundwater generally occurs less than 5 feet bgs, and the direction of groundwater flow is generally north toward Bucareli Bay, consistent with Site topography. Shallow groundwater discharges into Bucareli Bay. Because ground surface slopes steeply toward the shoreline, tidal influence on shallow groundwater levels (less than 10 feet in shallow fill and native soil) likely does not extend significantly beyond the high tide line. Therefore, shallow groundwater beneath most of the Site is not likely to be influenced by tides, and as a result, shallow groundwater at the Site is fresh to slightly brackish.

Based on information obtained from Mr. John Boling of the City of Craig, water is supplied to the residences and businesses, including the WCP facility via a municipal water system. The source of municipal water is approximately 10 miles from the Site at North Fork Lake. Groundwater beneath the Site and neighboring properties is neither currently, nor will be used in the future for beneficial purposes. In addition, the City of Craig requires all future owners of the WCP facility to use municipal water. No on-Site water systems are permitted.

2.4 Previous Site Assessment Results

Several environmental assessments and remedial actions have been completed at the Site between 1987 and 2003. These activities identified several on-Site areas of soil and groundwater impact related to historical operations. The remedial actions previously conducted at the Site included soil vapor extraction, passive groundwater collection, soil excavation and off-Site treatment and/or disposal of removed soils. Details of the results of past assessments as well as previous remedial actions completed at the Site are summarized in the May 2004 Work Plan.

In September and October 2000, RRM conducted an assessment and limited remediation of impacted soils at the Site on behalf of Chevron Products Company (Chevron). Prior to the initiation of the September 2000 remediation work, ADEC approved site specific cleanup levels (SSCLs) for soil and groundwater at the Site. ADEC-approved SSCLs guided the remediation activities performed by RRM. Following the September 2000 remediation activities, RRM conducted an assessment at the Site in October 2000, which identified areas of residual soil and groundwater impact at the Site in limited quantities and extent. The primary constituents of concern (COCs) associated with the remaining soil and groundwater impact at the Site included DRO and RRO, benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), lead, and PAHs. These conditions led to a request by ADEC (March 26, 2002 correspondence) for additional Site investigation and remediation.

Groundwater monitoring has been conducted intermittently at the Site since 1987. The most recent events were conducted in June 2002 and July 2003. During the June 2002 sampling event, samples were reportedly collected from the shallow (less than 15 feet deep) monitoring wells using a disposable bailer to purge and sample the wells. Groundwater samples were collected in 2003 and 2004 (this event) using a submersible or peristaltic pump to reduce particulates in the sample. The results for sampling conducted prior to 2003 are contained in letter reports submitted to ADEC on behalf of Chevron.

The December 31, 2003 *Final Report, Site Assessment and Remediation, Former Ward's Cove Packing Facility*, prepared by SLR, summarizes soil and groundwater conditions following the September and October 2000 activities performed by RRM. Based on the results of the assessment completed in July 2003, visibly stained soil with diesel-like odors was observed at the water table approximately 1 to 2 feet below the former Steam Shack area. In addition, visibly stained soil with diesel-like odors was observed at two locations at approximately nine feet bgs in the southeast corner of the former upper TTLR.

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Laboratory analysis of groundwater samples collected in July 2003 at the Site yielded total lead concentrations less than cleanup levels and DRO concentrations less than cleanup levels (except at well MW-18). A film of free-phase petroleum product (free product) with diesel-like odor was observed on the water table surface at well MW-12, and therefore, this well was not sampled. None of the groundwater samples yielded detectable concentrations of RRO, and none of the groundwater samples (except well MW-13) yielded detectable PAH concentrations. MW-12, MW-13, and MW-18 are all located near the former Steam Shack.

3.0 SITE ASSESSMENT AND REMEDIATION ACTIVITIES

3.1 Pre-field Activities

Upon ADEC approval of the May 2004 Work Plan and August 2004 Water Treatment Plan, and before initiating field work activities, SLR conducted planning and logistical tasks to facilitate Site remediation and groundwater monitoring. SLR prepared a Site-specific health and safety plan (HASP) to guide safe practices in the field and to describe appropriate activities and safety measures for contingent field conditions. SLR provided copies of the HASP to AIGC-EM, WCP, Chevron, and the selected subcontractors prior to initiating field work. SLR also prepared and distributed a field activity schedule to AIGC-EM, ADEC, WCP, and Chevron. No permits or regulatory agency approvals were required beyond ADEC approval of the Work Plan and Water Treatment Plan.

SLR mobilized field equipment and staff to the Site from SLR's offices in Bothell, Washington and San Mateo, California office, as well as from various equipment suppliers. SLR also retained B-3 Contractors, Inc. (B-3) of Klawock, Alaska to perform Site remedial activities.

SLR and B-3 performed field activities from August 14 to 23, 2004. Representatives of AIGC-EM, Chevron, RRM, and ADEC were present at the Site during much of the remediation and groundwater assessment activities described below.

3.2 Soil Remediation

Soil remediation consisted of excavating visibly stained soil in the former Steam Shack area and stockpiling the soil onto plastic sheeting adjacent to the excavation. The original footprint of the Steam Shack covered approximately 400 to 500 square feet. Before remediation, SLR and AIGC-EM estimated excavating an area measuring approximately 30 feet by 40 feet to a depth of 2 to 4 feet bgs. The final excavation measured approximately 40 feet by 50 feet and ranged in depth from 2 to 6 feet bgs.

SLR directed B-3 to excavate the former Steam Shack area using a track-mounted excavator. During excavation, SLR personnel recorded observations regarding suspect odors and visibly stained soils encountered by B-3. Visibly impacted soil generally occurred in the lower 1 to 2 feet of the excavation and appeared associated with groundwater-saturated soil immediately above the native clay soil. Apparently un-impacted soils (no visible stains or odors) overlying visibly impacted soil were removed from much of the outer portion of the excavation and stockpiled next to the excavation. Visibly stained soil was removed down to the clay layer throughout the excavation. The stockpiled soil was placed on plastic sheeting and then covered with plastic sheeting, pending later disposal.

Groundwater seepage occurred at the top few inches of soil above the native clay layer and accumulated in the bottom of the excavation. Less than 10 gallons of groundwater seeped into and collected in the excavation. Due to the limited volume of water, and the lack of apparent free product sheen, SLR did not evacuate the accumulated groundwater within the excavation. Therefore, SLR did not perform any water treatment and discharge activities as described in the Water Treatment Plan.

3.3 Confirmation Sampling

Upon reaching the excavation limits based upon visual observations, SLR and AIGC-EM collected soil samples to confirm residual constituent concentrations in the excavation sidewalls and floor. Laboratory analysis of the confirmation samples indicated an area of residual impacted soils in the southwest corner of

the excavation. Therefore, SLR directed B-3 to remove additional soil from this area. Additional excavation sidewall samples were subsequently collected for chemical analysis to document the condition of soils following completion of the additional soil removal. Figure 3 shows a scale drawing of the excavation dimensions and approximate sample locations. The excavation activities resulted in removal of an estimated 300 cubic yards (CY) of soil.

SLR and AIGC-EM collected excavation sidewall and floor samples by first scraping the excavated surface free of loose soil using a shovel. Field personnel then used a clean stainless steel spoon to retrieve a sample from the scraped sidewall and place the sample into a laboratory-supplied jar. Discrete samples were collected at the target sampling depth from a zone approximately 2 to 4 inches in vertical length along the face of the sidewall, and 1 to 2 inches deep into the face of the sidewall. All sidewall samples were collected from the gravelly sand with silt in the area immediately above groundwater-saturated soil, while all excavation floor samples were collected from the moist to wet, native clay unit. All samples were then labeled and placed into ice-filled coolers for subsequent transport to the laboratory following standard chain-of-custody procedures.

A total of 24 confirmation soil samples were collected for analysis, including 11 sidewall samples (SSR-1 through SSR-11), two over-excavation confirmation samples (SSR-12, SSR-13), and 11 floor samples (SSRB-1 through SSRB-11). Previous confirmation sampling results provided sufficient information for soil disposal characterization purposes. Therefore, no stockpile samples were collected for chemical analysis. Confirmation samples were analyzed by Severn Trent Laboratories (STL) in Tacoma, Washington for those analytes described in the Work Plan and as described below. All soil samples were handled in accordance with appropriate chain-of-custody protocols which included labeling and logging all samples into chain-of-custody records upon collection, placing each sample into an ice-chilled cooler, and appropriately packaging and shipping the samples to STL. STL analyzed the samples for the following analytes:

- DRO by AK Method 102
- RRO by AK Method 103
- PAHs by EPA Method 8270 – GC/MS with SIM

Appendix A contains photographs of the excavation soil sampling activities performed at the Site and Appendix B contains laboratory reports for soil confirmation sampling.

3.4 Soil Disposal and Excavation Backfill

B-3 loaded excavated soil from the stockpile into nine 40-yard roll-off bins for transport to the marine terminal in Thorne Bay, Alaska. The soil was subsequently transported by barge (under bill of lading or manifest) to Rabanco's Roosevelt Regional Landfill in Roosevelt, [south-central] Washington for disposal. A total of 234.84 tons of petroleum impacted soil was disposed at the landfill. Copies of documentation related to waste disposal are included in Appendix C.

Subsequent to completing the excavation, B-3 backfilled the excavation with approximately 100 CY of un-impacted soil (previously removed from the edges or shallow surface areas of the excavation) and approximately 200 CY of clean sand and fine gravel material ("pit run") derived from a local rock quarry. B-3 also transported approximately 10 CY of wood debris removed from the former Steam Shack area to the City of Craig waste disposal site.

3.5 TTLR Assessment

Chevron representatives directed B-3 to excavate test pits into the TTLR area to further investigate subsurface conditions observed by SLR and AIGC-EM during the July 2003 assessment activities. Previous assessment activities encountered visibly-stained soils with faint hydrocarbon-like odors. Based on the observations made by RRM during this most recent assessment, little or no soil extending to the water table (approximately 9 feet bgs), exhibited these conditions. Chevron representatives collected soil samples for analysis from each of the test pits and RRM will submit the results to ADEC under a separate report.

3.6 Groundwater Sampling

During the August 2004 field activities, groundwater samples were collected from all accessible wells except well MW-11 (dry), well MW-12 (removed during excavation), and well MW-19 (damaged and inaccessible). Due to its proximity to the excavation, well MW-18 was sampled prior to excavation activities, and subsequently abandoned during excavation. In general, the wells were undamaged and the surface seals remained intact, although some wells contained ponded water in the well monuments. Well MW-19 was apparently partially or completely filled with soil and rock. Wells MW-5, MW-6, and MW-13 through MW-22 were sampled to assess DRO, RRO, PAH, and BTEX compound concentrations in the former Steam Shack area. Wells MW-23 and MW-24 were sampled to assess lead in the Lower Yard background area and at the upgradient property line, respectively.

SLR used low-flow sampling methods, including a peristaltic pump with new tubing at each well, to purge and sample the wells. Before sampling, SLR slowly purged groundwater from each well (usually less than 1 gallon of water per well) until the pH, temperature, specific conductance, and dissolved oxygen parameters stabilized. Table 2 contains field parameter data. Field monitoring data sheets are presented in Appendix D.

After purging each well, a groundwater sample was collected using the purging pump to directly discharge water from the pump into laboratory provided sample containers. All groundwater samples were handled in accordance with appropriate chain-of-custody protocols which included labeling and logging all samples into chain-of-custody records upon collection, placing each sample into an ice-filled cooler, and appropriately packaging and shipping the samples to STL for analysis at the completion of sampling activities. Copies of chain-of-custody documents and laboratory analysis reports are included in Appendix E.

Groundwater samples were submitted to STL for laboratory analyses of one or more of the following test methods, in accordance with the Work Plan:

- Total Lead EPA Method 6000/7000
- DRO AK Method 102
- RRO AK Method 103
- PAHs EPA Method 8270 – GC/MS with SIM
- BTEX EPA Method 8260B

4.0 SITE ASSESSMENT AND REMEDIATION RESULTS

Results of laboratory analysis of soil and groundwater samples collected during this assessment and remediation program are discussed below. For comparison and discussion purposes, soil and groundwater cleanup levels are shown at the bottom of Tables 1 and 2 and include ADEC-approved SSCLs for soil, Method Two soil cleanup levels, and Table C groundwater cleanup levels. In addition, 10-times Table C Cleanup levels for groundwater constituents are shown, as ADEC recently approved the application of the 10-times rule for groundwater constituents at the Site.

4.1 Soil Sampling Results

Excavation sidewall samples yielded DRO and RRO concentrations ranging from below laboratory method detection limits (LMDLs) to 5,180 milligrams per kilogram (mg/kg), and from less than laboratory detection limits to 946 mg/kg, respectively. Only soil samples SSR-3 and SSR-5 yielded DRO concentrations exceeding the SSCL. However, the soil surrounding these two sample locations was subsequently excavated and stockpiled for disposal. Additional samples (SSR-12, SSR-13) were collected to confirm the sufficiency of over-excavation. Laboratory analysis of the additional sidewall soil sample (SSR-13) yielded a concentration of DRO of 5,180 mg/kg, exceeding the SSCL for DRO of 3,560 mg/kg.

Excavation sidewall samples yielded detectable concentrations for 16 PAH analytes. None of the PAH concentrations exceeded Table B1, B2 Method Two Cleanup Levels for either direct contact exposure or groundwater protection, except for one sample (SSR-9). The benzo(a)pyrene concentration at SSR-9 (1.04 mg/kg) slightly exceeded the soil ingestion cleanup level of 0.9 mg/kg. 1' bgs

None of the confirmation soil samples collected from the floor of the excavation (at depths of approximately 0 to 6 inches beneath the surface of the excavation floor) exceeded the SSCLs for DRO and RRO. Laboratory analysis of excavation floor samples yielded DRO and RRO concentrations ranging from less than LMDLs to 199 mg/kg, and from less than LMDLs to 198 mg/kg, respectively. Excavation floor samples also yielded detectable concentrations for 12 PAH analytes. None of the PAH concentrations exceeded Table B1, B2 Method Two Cleanup Levels for either direct contact exposure or groundwater protection. Table 1 presents soil confirmation sampling results for the former Steam Shack area. Laboratory reports for soil samples are provided in Appendix B.

4.2 Groundwater Sampling Results

The analyzed groundwater samples yielded total lead concentrations of less than 1 to 9.25 micrograms per liter ($\mu\text{g/L}$), below the 15 $\mu\text{g/L}$ Table C groundwater cleanup level and well below 10-times the Table C groundwater cleanup level (150 $\mu\text{g/L}$).

The DRO concentrations detected in groundwater samples ranged from less than LMDLs to 4.72 milligrams per liter (mg/L). Only well MW-18 yielded a DRO concentration that exceeded the 1.5 mg/L Table C groundwater cleanup level (concentration of 4.72 mg/L) but not in excess of 10-times the Table C groundwater cleanup level of 15 mg/L. This well and the surrounding soil down to the clay unit were excavated and removed during remediation.

None of the analyzed groundwater samples yielded RRO in concentrations above the LMDL. No BTEX compounds were detected above the LMDL of 1 $\mu\text{g/L}$ in any sample.

Except for the sample from well MW-13, none of the samples yielded PAH concentrations above the LMDL. The sample from well MW-13 contained detectable concentrations of 4 PAH compounds

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(compared to 13 compounds detected during the 2003 event). None of the analyte concentrations exceeded the Table C groundwater cleanup levels. Table 2 presents laboratory results for groundwater samples collected at 13 wells during this assessment. Laboratory reports for groundwater data are provided in Appendix E.

5.0 SUMMARY AND CONCLUSIONS

Between August 16 and 23, 2004, SLR and AIGC-EM performed Site Assessment and Remediation activities at the Site in accordance with the May 7, 2004 Work Plan prepared by AIGC-EM and approved by ADEC on July 12, 2004. Based on the field activities no unexpected conditions in the background, Lower Yard, or former Steam Shack areas were identified. A summary of the results of the field activities is as follows:

5.1 Soil Conditions

- Soil consists of 2 to 10 feet of gravelly sand with silt fill underlain by at least 2 to 3 feet of organic-rich native silt, clay and sand.
- Visibly stained soil was removed down to the clay layer beneath the former Steam Shack area. *De minimus* quantities of visibly impacted, inaccessible soil remain in the floor or sidewall in the southwest portion of the excavation. The residually-impacted soil exists as scattered pockets or thin (less than 6-inch thick) layers above the clay layer. The excavation was backfilled with clean excavated soil and clean imported sand and gravel.
- Following soil remediation at the former Steam Shack area, only one confirmation sidewall sample location contained DRO in soil at a concentration above the SSCL, and only one confirmation sidewall sample contained a PAH (benzo[a]pyrene) concentration above the Table B1, Method Two cleanup level. No floor sample locations contained DRO, RRO, or PAH concentrations above the cleanup levels.
- Little or no visibly stained soil was observed within test pits excavated to approximate depths of 9 feet bgs in the southeast corner of the former upper TTLR. A separate report detailing the results of this assessment will be generated and submitted to ADEC by RRM.
- Approximately 234 tons of soil containing petroleum hydrocarbons from the former Steam Shack area were characterized as non-hazardous material and transported to the Roosevelt Regional Landfill for disposal.
- Approximately 10 tons of wood debris were transported to the City of Craig waste disposal area.

5.2 Groundwater Conditions

- Groundwater samples collected from the Site yielded total lead concentrations less than 10 µg/L, below the Table C cleanup level of 15 µg/L and well below 10-times the Table C cleanup level of 150 µg/L.
- With one exception (well MW-18), none of the analyzed groundwater samples collected from the Site yielded a DRO concentration above the 1.5 mg/L Table C cleanup level and well below 10-times the Table C cleanup level of 15 mg/L. The sample from well MW-18 near the former Steam Shack yielded a DRO concentration of 4.72 mg/L, exceeding the Table C cleanup level but not the 10-times the Table C cleanup level. Well MW-18 was removed during soil excavation.
- No groundwater samples yielded concentrations of RRO at or above the corresponding LMDL.
- No groundwater samples (except well MW-13) yielded PAH concentrations at or above the corresponding LMDL. Laboratory analysis of the groundwater sample collected from well MW-13 indicated detectable concentrations of four PAH constituents, although none of the analyte concentrations exceeded the Table C cleanup levels.
- No impacted groundwater was observed during test pit investigations at the upper TTLR.

5.3 Conclusions and Recommendations

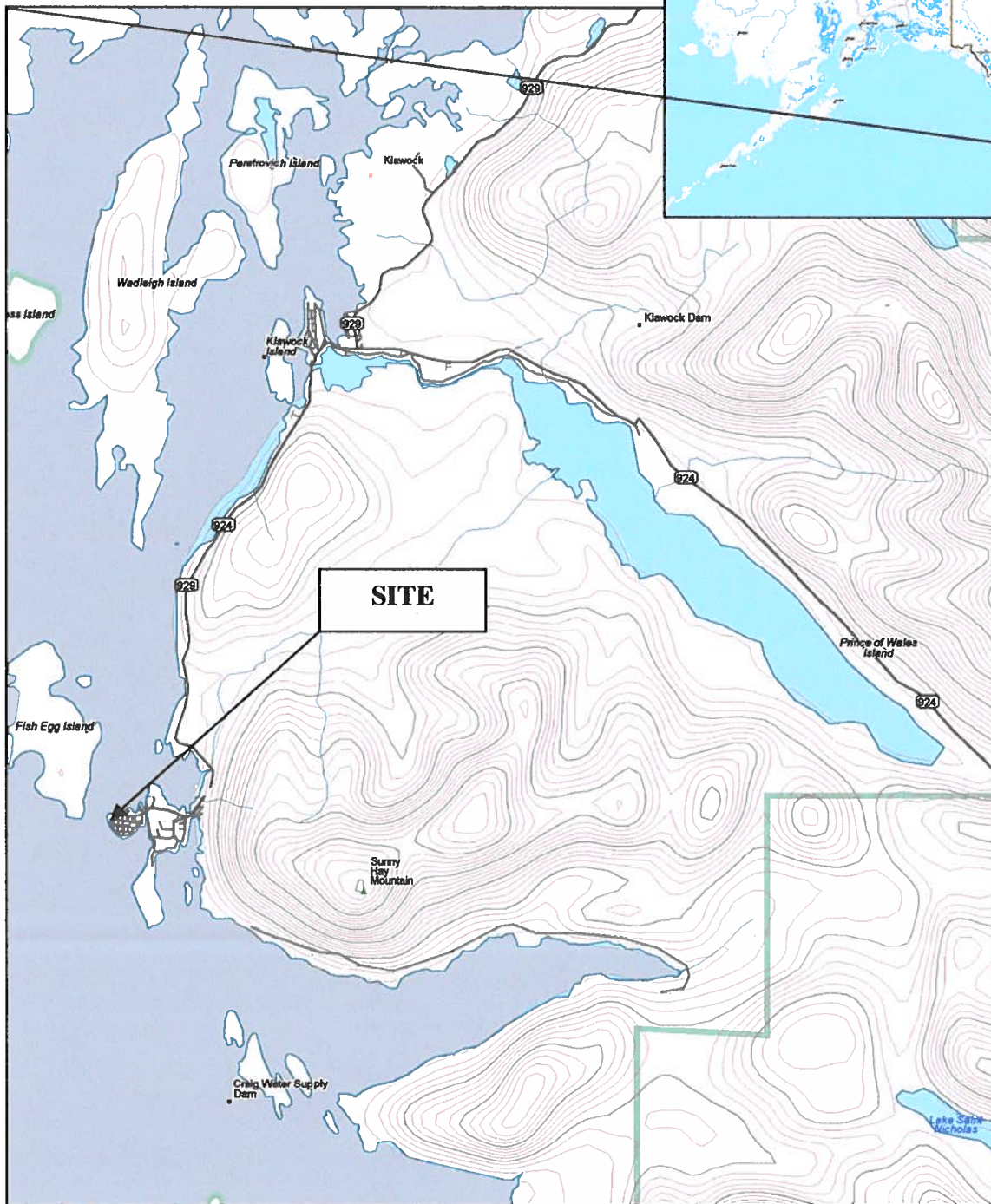
Based upon the documented remediation activities completed during August 2004, the following conclusions regarding soil conditions are made.

- Soil beneath the former Steam Shack area has been successfully remediated to concentrations below the SSCLs for DRO, RRO, and PAHs. Residual hydrocarbon impacted soils at *de minimus* quantities remaining at the former Steam Shack area represent minimal (acceptable) risk to human health or the environment. No further action at the former Steam Shack area appears to be warranted.

Based upon the historic and recent (August 2004) groundwater monitoring activities, the following conclusions regarding groundwater conditions are made.

- The current groundwater monitoring well network appears to provide data to sufficiently characterize and monitor groundwater conditions at the Site. SLR concludes that no additional wells are necessary for groundwater monitoring.
- No further monitoring of lead, BTEX compounds, or RRO in groundwater at the Site appears to be warranted.
- SLR recommends consultation with ADEC to determine what, if any, activities may be necessary for future groundwater monitoring at the site.
- If no other groundwater monitoring is necessary, or if limited groundwater well sampling occurs, SLR recommends abandoning those wells not needed for post-remediation monitoring.

FIGURES



SITE LOCATION

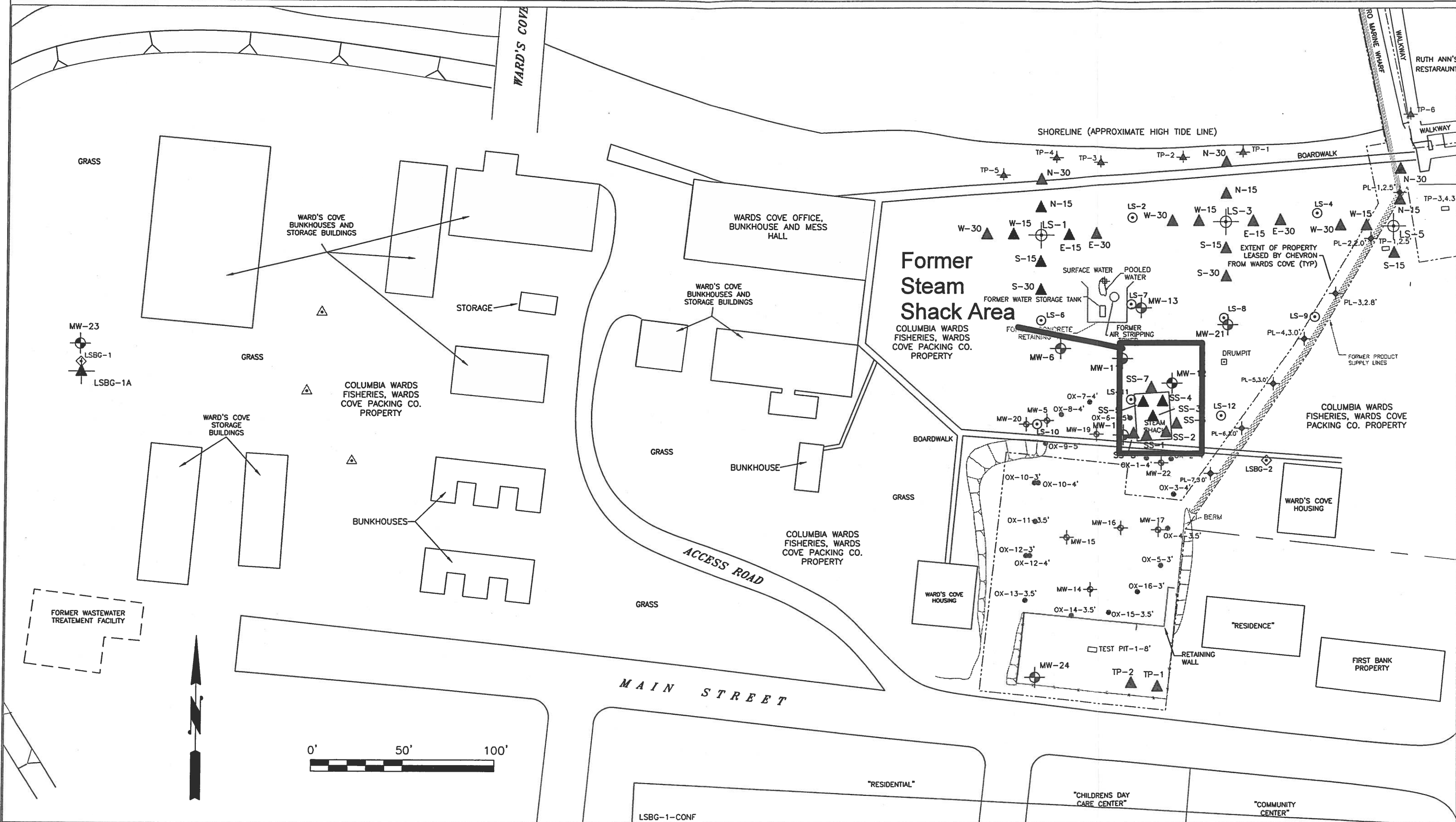
**FORMER WARD'S COVE PACKING FACILITY
CRAIG, ALASKA**



11/03/04

FIGURE 1

Project 006.0022.00018 005

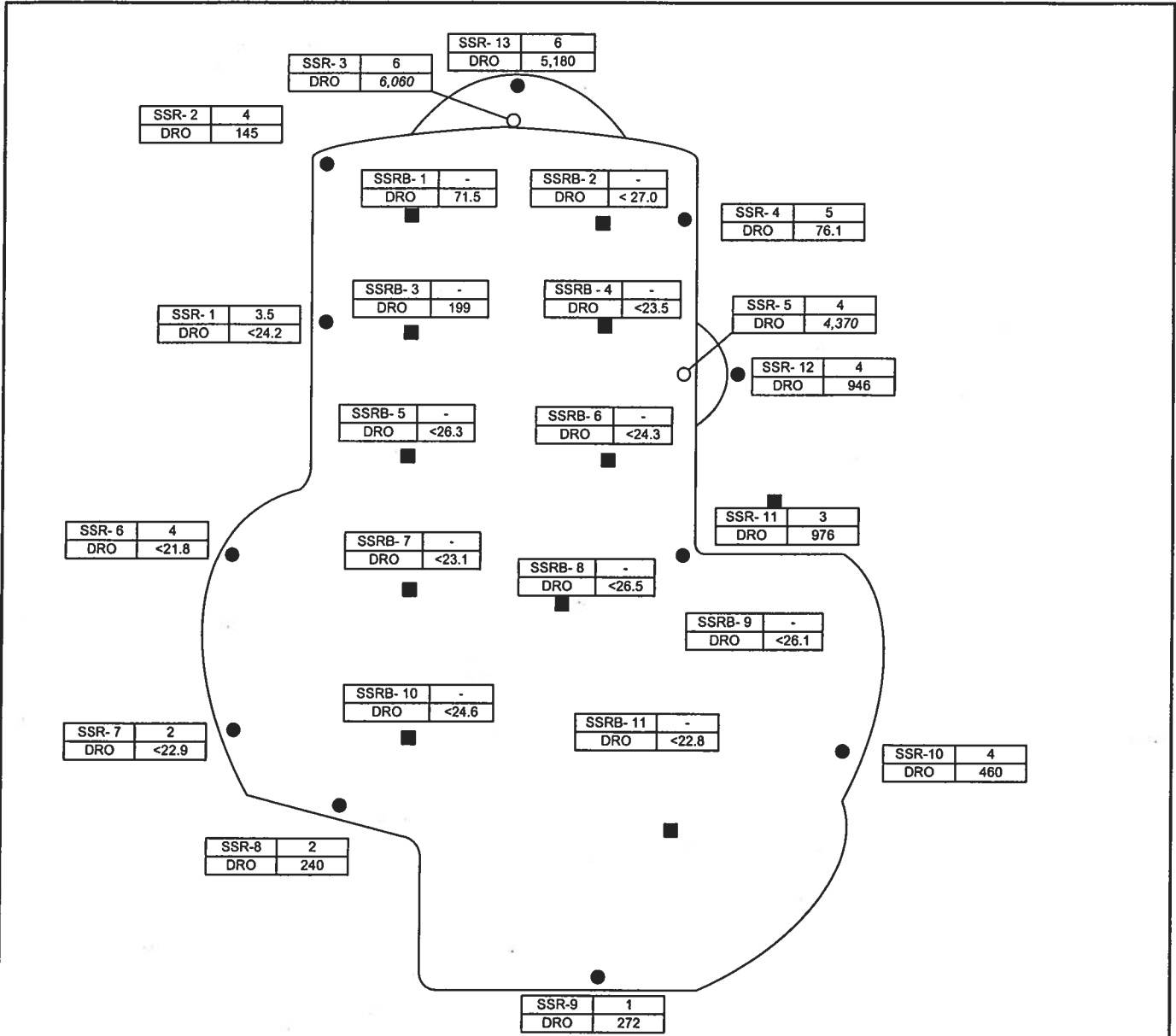


SITE AND EXPLORATION PLAN
FORMER WARD'S COVE PACKING FACILITY
CRAIG, ALASKA

DATE: 08-28-03 | Drawn By: SM | Appr. By: SN | FIGURE NO. 1-2 | JOB NO. 006.0022.00007

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> ▲ APPROXIMATE SLR LSBG-1 CONFIRMATION SAMPLE LOCATION (July, 2003) ▲ TP-2 APPROXIMATE SLR SOIL SAMPLE LOCATION (July, 2003) ● MW-11 APPROXIMATE SLR MW SAMPLE LOCATION (July, 2003) ◇ BACKGROUND LEAD SOIL AND WATER SAMPLE LOCATION ⊕ GROUNDWATER MONITORING WELL LOCATION ⊙ LEAD SOIL SAMPLE LOCATION | <ul style="list-style-type: none"> △ ATTEMPTED BACKGROUND LEAD WATER SAMPLE LOCATION (NO WATER TO 10' BGS) ▲ 1" DIAMETER TIDAL PROBE LOCATION (GRAB GROUNDWATER SAMPLE COLLECTION) ⊕ TIDAL AREA AND PRODUCTION SUPPLY LINE SOIL BORING LOCATION (GRAB SOIL SAMPLE COLLECTION) | <ul style="list-style-type: none"> ⊕ GRAB SURFACE WATER SAMPLE LOCATION ⊞ DRUM PIT GRAB WATER SAMPLE LOCATION □ EXPLORATORY EXCAVATION TEST PIT LOCATION (GRAB SOIL SAMPLE COLLECTION UPPER TTLR AREA) ⊕ OVER-EXCAVATION CONFIRMATION SOIL SAMPLE LOCATION (ABOVE GROUND TANK FARM AREA) ⊕ FORMER PRODUCT LINE SOIL BORING LOCATION (GRAB SOIL SAMPLE COLLECTION) |
|--|--|--|

TABLES



- Excavation Sidewall Sample
- Excavation Floor Sample

Sample #	Sample Depth (ft)	DRO conc. (mg/kg)
SSR-9	1	272



Soil Sampling Results
Former Steam Shack Area
Former Ward's Cove Packing Facility
Craig, Alaska

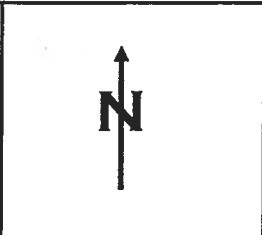


TABLE 1
SOIL SAMPLING ANALYTICAL RESULTS

Former Ward's Cove Packing Facility
Craig, Alaska

Sample Name	Sample Type	Sample Location	Sample Depth (ft bgs)	Sample Date	DRO	RRO	Naphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene
<i>Steam Shack Remediation Confirmation - Sidewall Samples</i>																
SSR-1	Discrete	Sidewall	3.5	8/17/2004	<24.2	<60.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSR-2	Discrete	Sidewall	4	8/17/2004	145	<52.0*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSR-3 ¹	Discrete	Sidewall	6	8/17/2004	6060	462	ND	ND	ND	ND	ND	ND	ND	ND	0.22	ND
SSR-4	Discrete	Sidewall	5	8/17/2004	76.1	<49.2	ND	0.0122	ND	ND	ND	ND	ND	ND	ND	ND
SSR-5 ¹	Discrete	Sidewall	4	8/17/2004	4370	251	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSR-6	Discrete	Sidewall	4	8/17/2004	<21.8	<54.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSR-7	Discrete	Sidewall	2	8/17/2004	<22.9	<57.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSR-8	Discrete	Sidewall	2	8/18/2004	240	160	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSR-9	Discrete	Sidewall	1	8/18/2004	272	946	0.361	0.182	1.21	0.167	0.326	1.54	0.617	2.23	2.71	0.927
SSR-10	Discrete	Sidewall	4	8/18/2004	460	122	ND	ND	0.194	ND	ND	0.145	0.0797	0.61	0.686	0.144
SSR-11	Discrete	Sidewall	3	8/18/2004	976	545	0.0314	0.072	0.0416	ND	ND	ND	ND	ND	0.0854	ND
SSR-12 ²	Discrete	Sidewall	6	8/21/2004	946	344	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSR-13 ³	Discrete	Sidewall	6	8/21/2004	5180	354	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<i>Steam Shack Remediation Confirmation - Floor Samples</i>																
SSRB-1	Discrete	Floor	-	8/18/2004	71.5	<61.4	0.0373	ND	ND	ND	ND	ND	ND	0.0725	0.0834	0.0473
SSRB-2	Discrete	Floor	-	8/18/2004	<27	<67.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSRB-3	Discrete	Floor	-	8/18/2004	199	198	0.0602	0.0488	ND	ND	0.0439	0.134	ND	0.104	0.106	ND
SSRB-4	Discrete	Floor	-	8/18/2004	<23.5	<58.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSRB-5	Discrete	Floor	-	8/18/2004	<26.3	<65.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSRB-6	Discrete	Floor	-	8/18/2004	<24.3	<60.7	ND	ND	ND	ND	0.0278	0.0314	ND	0.0528	0.0264	ND
SSRB-7	Discrete	Floor	-	8/18/2004	<23.1	<57.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSRB-8	Discrete	Floor	-	8/18/2004	<26.5	<66.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSRB-9	Discrete	Floor	-	8/18/2004	<26.1	<65.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSRB-10	Discrete	Floor	-	8/18/2004	<24.6	<61.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SSRB-11	Discrete	Floor	-	8/18/2004	<22.8	<57.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ADEC Approved Site Specific Cleanup Levels					3,560	8,300										
Table B1 (non-PHC) Method 2 Cleanup Levels - Ingestion					---	---	1,700	---	---	5,000	3,300	---	24,900	3,300	2,500	9
Table B1 (non-PHC) Method 2 Cleanup Levels - Groundwater Protection					---	---	19	---	---	190	240	---	3,900	1,900	1,400	5.5
Table B2 (petroleum hydrocarbons) Method Two Cleanup Levels - Ingestion					8,250	8,300	---	---	---	---	---	---	---	---	---	---
petroleum hydrocarbons) Method Two Cleanup Levels - Groundwater Protection					230	9,700	---	---	---	---	---	---	---	---	---	---

Notes and Abbreviations:

DRO - diesel-range organic hydrocarbons; RRO - residual-range organic hydrocarbons

all results in mg/kg = milligrams per kilogram

<2.5 = Analyte not detected above the reporting limit stated

-- = not analyzed

ND = not detected above lab method detection limit

ft bgs = feet below ground surface

Analyte concentrations at or above the corresponding cleanup level are shown in **bold-face type**.

¹ Location subsequently over-excavated and re-sampled.

² Confirmation sample following additional excavation at SSR-5.

³ Confirmation sample following additional excavation at SSR-3.

**TABLE 1
SOIL SAMPLING ANALYTICAL RESULTS**

**Former Ward's Cove Packing Facility
Craig, Alaska**

Sample Name	Sample Type	Sample Location	Sample Depth (ft bgs)	Sample Date	Chrysenes	Benzo fluor-anthenes	Benzo(a) pyrene	Indeno (1,2,3-cd) pyrene	Dibenz(a,h) anthracene	Benzo(g,h,i) perylene
SSR-1	Discrete	Sidewall	3.5	8/17/2004	ND	ND	ND	ND	ND	ND
SSR-2	Discrete	Sidewall	4	8/17/2004	ND	ND	ND	ND	ND	ND
SSR-3 ¹	Discrete	Sidewall	6	8/17/2004	ND	0.0476	0.0201	ND	ND	ND
SSR-4	Discrete	Sidewall	5	8/17/2004	ND	0.0136	0.00696	0.0855	ND	0.0111
SSR-5 ¹	Discrete	Sidewall	4	8/17/2004	ND	ND	ND	ND	ND	ND
SSR-6	Discrete	Sidewall	4	8/17/2004	ND	ND	ND	ND	ND	ND
SSR-7	Discrete	Sidewall	2	8/17/2004	ND	ND	ND	ND	ND	ND
SSR-8	Discrete	Sidewall	2	8/18/2004	ND	ND	ND	ND	ND	ND
SSR-9	Discrete	Sidewall	1	8/18/2004	1.34	1.43	1.04	0.842	0.297	1.07
SSR-10	Discrete	Sidewall	4	8/18/2004	0.169	0.232	0.203	0.179	ND	0.218
SSR-11	Discrete	Sidewall	3	8/18/2004	ND	0.0579	0.0212	ND	ND	0.0478
SSR-12 ²	Discrete	Sidewall	6	8/21/2004	ND	ND	ND	ND	ND	ND
SSR-13 ³	Discrete	Sidewall	6	8/21/2004	ND	ND	ND	ND	ND	ND
SSRB-1	Discrete	Floor	-	8/18/2004	0.0671	0.0919	0.0493	0.0518	ND	0.0501
SSRB-2	Discrete	Floor	-	8/18/2004	ND	ND	ND	ND	ND	ND
SSRB-3	Discrete	Floor	-	8/18/2004	0.0407	0.0772	ND	ND	ND	0.0349
SSRB-4	Discrete	Floor	-	8/18/2004	ND	ND	ND	ND	ND	ND
SSRB-5	Discrete	Floor	-	8/18/2004	ND	ND	ND	ND	ND	ND
SSRB-6	Discrete	Floor	-	8/18/2004	ND	ND	ND	ND	ND	ND
SSRB-7	Discrete	Floor	-	8/18/2004	ND	ND	ND	ND	ND	ND
SSRB-8	Discrete	Floor	-	8/18/2004	ND	ND	ND	ND	ND	ND
SSRB-9	Discrete	Floor	-	8/18/2004	ND	ND	ND	ND	ND	ND
SSRB-10	Discrete	Floor	-	8/18/2004	ND	ND	ND	ND	ND	ND
SSRB-11	Discrete	Floor	-	8/18/2004	ND	ND	ND	ND	ND	ND
ADEC Approved Site Specific Cleanup Levels										
Table B1 (non-PHC) Method 2 Cleanup Levels - Ingestion					930	9	0.9	9	0.9	---
Table B1 (non-PHC) Method 2 Cleanup Levels - Groundwater Protection					550	17	2	50	5	---
Table B2 (petroleum hydrocarbons) Method Two Cleanup Levels - Ingestion					---	---	---	---	---	---
Table B2 (petroleum hydrocarbons) Method Two Cleanup Levels - Groundwater Protection					---	---	---	---	---	---

Notes and Abbreviations:

DRO - diesel-range organic hydrocarbons; RRO - residual-range organic hydrocarbons

all results in mg/kg = milligrams per kilogram

<2.5 = Analyte not detected above the reporting limit stated

-- = not analyzed

ND = not detected above lab method detection limit

ft bgs = feet below ground surface

Analyte concentrations at or above the corresponding cleanup level are shown in **bold-face type**.

¹ Location subsequently over-excavated and re-sampled.

² Confirmation sample following additional excavation at SSR-5.

³ Confirmation sample following additional excavation at SSR-3.

**TABLE 2
GROUNDWATER SAMPLING ANALYTICAL RESULTS**

**Former Ward's Cove Packing Facility
Craig, Alaska**

Sample Location	Sample Date	Depth to Water (ft btoc)	Depth to Water (ft bgs)	Volume Purged (gal)	Specific Conductance (µmhos/cm)	pH	Temp. °C.	Dissolved Oxygen (mg/L)	Analytes Detected				
									Total Lead (µg/L)	DRO (mg/L)	RRO (mg/L)	Toluene (µg/L)	PAHs (µg/L)
MW-5	08/18/04	9.43	5.4	1	618	6.85	14.8	1.33	-	0.349	0.176	<1	ND
MW-6	07/17/03	7.16	4.2	3	446	6.45	13.3	--	2.17	-	-	-	ND
MW-6	08/18/04	7.40	3.4	1	394	6.85	13.3	1.64	<1	0.486	0.187	<1	ND
MW-11	07/16/03	5.57	1.6	2	277	6.28	14.4	--	9.55	0.318	<0.75	<1	ND
MW-11	--	6.18	2.2	--	--	--	--	--	dry	dry	dry	dry	dry
MW-12	07/17/03	7.59	1.6	0.5	--	--	--	--	161	FP	FP	FP	FP
MW-12 ¹	--	7.82	3.3	--	--	--	--	--	removed	removed	removed	removed	removed
MW-13	07/17/03	2.57	0.2	1	265	6.52	14.7	--	9.75	0.388	<0.75	<1	see below
MW-13	08/18/04	5.30	2.3	1	316	6.85	13.5	2.6	1.96	0.517	0.298	<1	see below
MW-14	08/18/04	5.00	5.00	4	590	7.21	13.9	1.31	-	0.262	0.105	<1	ND
MW-15	08/18/04	4.80	4.80	5	552	6.98	15	1.52	-	0.244	<0.0944	<1	ND
MW-16	08/18/04	5.35	5.35	6	620	7.04	14.1	2.26	-	0.346	0.107	<1	ND
MW-17	08/18/04	6.65	6.65	4	460	6.88	13.8	3.52	-	<0.0945	<0.0945	<1	ND
MW-18	07/16/03	9.00	5.7	3	387	6.37	12.5	--	3.27	3.27	<0.75	1.35	ND
MW-18 ¹	08/17/04	9.35	6.4	1	415	6.07	13.6	2.4	<2.5	4.72	0.681	<1	ND
MW-19	--	--	--	--	--	--	--	--	NS	NS	NS	NS	NS
MW-20	08/18/04	7.50	4.5	2	604	6.83	14.3	1.01	-	0.218	0.119	<1	ND
MW-21	07/17/03	4.90	2.5	12	505	7.19	12.5	--	4.00	<0.1	<0.75	<1	ND
MW-21	08/18/04	5.88	2.9	2	425	6.85	14	1.27	<1	<0.0945	<0.0945	<1	ND
MW-22	07/16/03	6.31	6.3	3	600	6.87	13	--	<1	1.04	<0.75	<1	ND
MW-22	08/18/04	6.47	6.5	3	700	6.74	14.6	1.98	-	0.915	0.176	<1	ND
MW-23	07/17/03	10.31	7.3	3	773	6.93	12	--	3.12	-	-	-	ND
MW-23	08/19/04	10.60	7.6	1	>3,999	6.36	12.3	4.84	2.61	-	-	-	-
MW-24	07/17/03	10.63	9.6	30	542	6.96	14.4	--	3.43	-	-	-	-
MW-24	08/18/04	10.06	7.1	2	608	6.34	13.6	1.23	<0.5	-	-	-	-
Table C Cleanup Level									15	1.5	1.1	1,000	see below
10-Times Table Cleanup Level									150	15	11	10,000	see below

Notes and Abbreviations:

btoc = below top of casing
bgs = below ground surface (approximate)
- not analyzed
mg/L = milligrams per liter
¹ MW-12 and 18 removed during excavation.

FP = floating product in well; no analysis performed
ND = not detected above method detection limit
Analyte concentrations at or above the corresponding cleanup level are shown in bold-face type.
µmhos/cm = micromhos per centimeter
µg/L = micrograms per liter

**TABLE 2
GROUNDWATER SAMPLING ANALYTICAL RESULTS**

**Former Ward's Cove Packing Facility
Craig, Alaska**

Results for PAH analysis at MW-13				
PAH analyte	2003 Result (µg/L)	2004 Result (µg/L)	Table C Cleanup Level (µg/L)	10-Times Table C Cleanup Level (µg/L)
Acenaphthylene	0.110	<0.19	2,200	22,000
Anthracene	0.307	0.219	11,000	110,000
Benzo (a) anthracene	0.307	<0.19	1	100
Benzo (a) pyrene	0.154	<0.19	0.20	200
Benzo (b) fluoranthene	0.527	<0.948	1	100
Benzo (k) fluoranthene	0.549	<0.948	10	1,000
Chrysene	2.040	0.720	100	10,000
Dibenz (a,h) anthracene	0.285	<0.19	0.10	100
Fluoranthene	2.700	0.780	1,460	14,600
Indeno (1,2,3-cd) pyrene	0.132	<0.19	1	100
Naphthalene	0.220	<.474	700	7,000
Phenanthrene	0.307	<0.19	None	None
Pyrene	2.520	1.020	1,100	11,000

µg/L = micrograms per liter

APPENDIX A

SITE PHOTOGRAPHS

(ON CD)

Photos attached further in doc.

APPENDIX B

**SOIL SAMPLING LABORATORY REPORTS
(ON CD)**

Soil reports attached further in doc.

APPENDIX C

SOIL DISPOSAL DOCUMENTATION



RABANCO

REGIONAL DISPOSAL COMPANY

A WASHINGTON GENERAL PARTNERSHIP

LETTER OF DESTRUCTION

November 11, 2004

Wards Cove
P O Box 5030
Seattle, WA 98105

Dear Jan:

The following containers were dumped and their contents destroyed at Roosevelt Regional Landfill on September 9, 2004:

- RBDU201182
- RBDU201194
- RBDU201256
- RBDU201133
- GCEU425383
- EGTU420676
- GCEU435085
- GCEU431285
- RBDU201051

The total weight on these containers was 234.84 tons.

Sincerely,

RABANCO Regional Disposal Company

Jan Frailey
Administrative Assistant

/jf

Soil
Weight
Ticket

Number _____ Date _____

Commodity 44,450 @ _____ per _____

Weighed by Sc

Before

01:19 PM 06-23-04
Tare# 4
Gross 30580 lb
Tare 00 lb
Net 30580 lb

GROSS 15,410

After

01:26 PM 06-23-04
Tare# 4
Gross 75410 lb
Tare 00 lb
Net 75410 lb

TARE 30,960

NET 44,450

From _____

To _____

Address _____

8/30/04

DELIVER TO: TERESA BALDWIN @ AIG FAX 206-624-2994

FROM: ANN WILLIAMS @ ALASKA MARINE LINES-CRAIG AK

RE: RABANCO MOVE EX: WARD COVE/CRAIG

Teresa,

Sorry for the delay in getting this information to you.

There are 9 full units at the barge landing & leaving the island for Seattle today....they are:

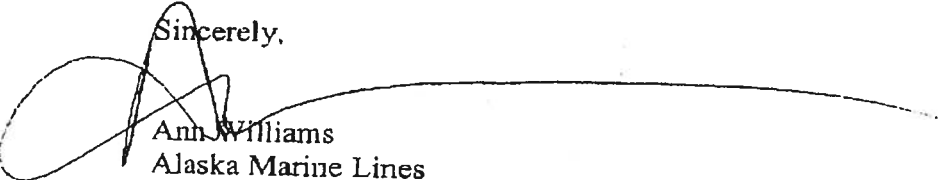
RBDU201133 AML TRACKING #103143
RBDU201194 AML TRACKING #103145
GCEU431285 AML TRACKING #103146
GCEU435085 AML TRACKING #103125
RBDU201182 AML TRACKING #103139
RBDU201051 AML TRACKING #103127
RBDU201256 AML TRACKING #103142
GCEU425383 AML TRACKING #103148
EGTU420676 AML TRACKING #103133

should arrive 9/6-9/1

UNIT#TOLU424264 Was not needed & is being sent back empty to Ketchikan.

Hope that helps, any questions, let me know...

Sincerely,


Ann Williams
Alaska Marine Lines
Craig AK office
awill@ati.lynden.com

cc: Jennifer Boyer @ SLR FAX 650-227-0211

APPENDIX D

FIELD SAMPLING DATA SHEETS

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 0010 0022.00018 Purged By: J. Barre Well I.D.: MW-5
 Client Name: AIG Sampled By: J. Barre Sample I.D.: MW-5
 Location: WAROS Core, Craig AK What QA Samples?: _____

Date Purged: 8/19/04 Start (2400hr): 1024 End (2400hr): 1036
 Date Sampled: 8/19/04 Sample Time (2400hr): 1036

Casing Diameter: 2" X 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 10.85 Casing Volume (gal) = _____
 Depth to water (feet) = 9.43 Calculated Purge (gal) = _____ (3 casing vols.)
 Water column height (feet) = 1.42 Actual Purge (gal) = ~10

FIELD MEASUREMENTS								
Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
<u>8/19</u>	<u>1026</u>	_____	<u>59.5</u>	<u>602</u>	<u>6.85</u>	<u>Clear</u>	↓	<u>9.43</u>
_____	<u>1029</u>	_____	<u>58.7</u>	<u>617</u>	<u>6.85</u>	"		
_____	<u>1032</u>	_____	<u>58.4</u>	<u>620</u>	<u>6.85</u>	"		
_____	<u>1035</u>	_____	<u>58.6</u>	<u>618</u>	<u>6.85</u>	"		
_____	<u>1036</u>	_____	<u>Sample Collected</u>	_____	_____	_____		
_____	_____	_____	_____	_____	_____	_____		

Mg/L
 DO
 1.25
 1.05
 1.55
 1.33

PURGING EQUIPMENT

___ Well Wizard Bladder Pump ___ Bailer (disposable)
 ___ Active Extraction Well Pump ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated Tubing
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

___ WW Bladder Pump ___ Bailer (disposable)
 ___ Sample Port ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated: Tubing
 Other: _____

Analyses: EPA 8270, AR 102, AC103, 90213
 Sample Vessel / Preservative: NP & HCL Odor: No

Well Integrity: Good - No leak
 Remarks: Iron Rich Sediment encountered during purging - No color

Signature: [Signature] Page 1 of 1

* Due to wet conditions - pH not accurate

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. DOW 0022 00018 Purged By: JR Boyer Well I.D.: MW-6
 Client Name: 0016 0022 00018 Sampled By: JR Boyer Sample I.D.: MW-6
 Location: WARDS (L) (C) (A) AR What QA Samples?: _____

Date Purged: 8/19/04 Start (2400hr): 7:00 End (2400hr): 709
 Date Sampled: 8/19/04 Sample Time (2400hr): 709

Casing Diameter: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 9.90 Casing Volume (gal) = 0.4250
 Depth to water (feet) = 7.40 Calculated Purge (gal) = 1.2750 (3 casing vols.)
 Water column height (feet) = 2.50 Actual Purge (gal) = 1.0

FIELD MEASUREMENTS								
Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
<u>8/19</u>	<u>702</u>	<u>~.25</u>	<u>56.6</u>	<u>456</u>	<u>6.85</u>	<u>Clear</u>		<u>7.40</u>
	<u>705</u>		<u>56.4</u>	<u>392</u>	<u>6.85</u>	"		<u>8.42</u>
	<u>708</u>		<u>56.0</u>	<u>394</u>	<u>6.85</u>	"		<u>8.55</u>
	<u>709</u>		<u>Sample</u>	<u>Collect</u>				

PURGING EQUIPMENT

Well Wizard Bladder Pump Bailer (disposable)
 Active Extraction Well Pump Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated _____
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

WW Bladder Pump Bailer (disposable)
 Sample Port Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated: Tubing
 Other: _____

Analyses: Total Lead EPA 8270, AR 102, AR 103, 502-B
 Sample Vessel / Preservative: HCL, NP, HNO3 Odor: ND

Well Integrity: Good - No leak
 Remarks: _____

Signature: JR Boyer Page 1 of 1

** Due to wet conditions - pH not accurate*



GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 006.0022.00018 Purged By: Boyer Well I.D.: MW-11
 Client Name: ATG Sampled By: Boyer Sample I.D.: MW-11
 Location: Woods Cove, Craig, AK What QA Samples?: _____

Date Purged: 8/19/04 Start (2400hr): _____ End (2400hr): _____
 Date Sampled: _____ Sample Time (2400hr): _____

Casing Diameter: 2" X 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 7.89 Casing Volume (gal) = 0.2907
 Depth to water (feet) = 6.18 Calculated Purge (gal) = 0.8721 (3 casing vols.)
 Water column height (feet) = 1.71 Actual Purge (gal) = 0

FIELD MEASUREMENTS								
Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
<u>8/19</u>	<u>805</u>	_____	<u>Well</u>	<u>Dry</u>	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

PURGING EQUIPMENT

___ Well Wizard Bladder Pump ___ Bailer (disposable)
 ___ Active Extraction Well Pump ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 ___ Peristaltic Pump ___ Dedicated _____
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

___ WW Bladder Pump ___ Bailer (disposable)
 ___ Sample Port ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 ___ Peristaltic Pump ___ Dedicated: _____
 Other: _____

Analyses: _____
 Sample Vessel / Preservative: _____ Odor: _____

Well Integrity: _____
 Remarks: Well Dry - No Sample Collected

Signature: Boyer Page 1 of 1

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 000-3322-00018 Purged By: BOHR Well I.D.: MW-13
 Client Name: AIG Sampled By: BOHR Sample I.D.: MW-1?
 Location: WATER CO. No. A2 What QA Samples?: _____

Date Purged: 8/19/04 Start (2400hr): 813 End (2400hr): 927
 Date Sampled: 8/19/04 Sample Time (2400hr): 927

Casing Diameter: 2" X 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 17.95 Casing Volume (gal) = 0.10
 Depth to water (feet) = 5.30 Calculated Purge (gal) = 0.22 (3 casing vols.)
 Water column height (feet) = 0.65 Actual Purge (gal) = 0.25

FIELD MEASUREMENTS								
Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
<u>8/19</u>	<u>813</u>	<u>0</u>	<u>57.4</u>	<u>308</u>	<u>6.85</u>	<u>Clear</u>	↓	<u>5.30</u>
	<u>822</u>		<u>56.8</u>	<u>316</u>	<u>6.85</u>	<u>"</u>		
	<u>825</u>		<u>Well Dry</u>					
	<u>834</u>		<u>Recovered</u>					<u>5.69</u>
	<u>841</u>		<u>Well Dry</u>					
	<u>852</u>							<u>5.52</u>
	<u>927</u>		<u>Samples Collected</u>					

DO
mg/L
1.84
2.60

PURGING EQUIPMENT

Well Wizard Bladder Pump Bailer (disposable)
 Active Extraction Well Pump Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated tubing
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

WW Bladder Pump Bailer (disposable)
 Sample Port Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated: Tubing
 Other: _____

Analyses: Total Pb, AK102, AK103, 8021B, 8270
 Sample Vessel / Preservative: HCL, NP, HNO3 Odor: _____

Well Integrity: OK
 Remarks: _____

Signature: Sumner Boyce Page 1 of _____

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. COLL 0022 10018 Purged By: J Boyer Well I.D.: MW-14
 Client Name: ATG Sampled By: J Boyer Sample I.D.: MW-14
 Location: WARDS Cove Craig AK What QA Samples?: _____

Date Purged: 8/18/04 Start (2400hr): 1015 End (2400hr): 1048
 Date Sampled: 8/18/04 Sample Time (2400hr): _____

Casing Diameter: 2" ~~X~~ 3" _____ 4" X 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 8.58 Casing Volume (gal) = 2.3986
 Depth to water (feet) = 5.00 Calculated Purge (gal) = 7.1958 (3 casing vols.)
 Water column height (feet) = 3.58 Actual Purge (gal) = 4.25

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
8/18/04	1019	0.25	59.6	687	7.14	Cloudy		5.02
8/18/04	1024	1.25	56.7	663	7.30	Clear		5.01
8/18/04	1029	2.25	56.8	640	7.31	Clear		5.01
8/18/04	1036	2.75	56.8	619	7.27	Clear		5.01
8/18/04	1043	3.7	57.1	589	7.26	Clear		5.01
8/18/04	1047	4.0	57.1	590	7.21	Clear		5.01
8/18/04	1048	Sampled						

mg/L
DO
 1.09
 2.08
 1.25
 1.30
 1.31

PURGING EQUIPMENT

Well Wizard Bladder Pump Bailer (disposable)
 Active Extraction Well Pump Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated Tubing
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

WW Bladder Pump Bailer (disposable)
 Sample Port Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated: Tubing
 Other: _____

Analyses: B270, AK 102, AK103, 8021B
 Sample Vessel / Preservative: HCL / NP Odor: Slight

Well Integrity: OK
 Remarks: _____

Signature: J Boyer

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 000.0022.00018 Purged By: J Boyer Well I.D.: MW-15
 Client Name: AIG Sampled By: J Boyer Sample I.D.: MW-15
 Location: WARDS Cove, Craig AR What QA Samples?: _____

Date Purged: 8/18/04 Start (2400hr): 1121 End (2400hr): 1145
 Date Sampled: 8/18/04 Sample Time (2400hr): 1145

Casing Diameter: 2" ~~X~~ 3" _____ 4" X 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 9.15 Casing Volume (gal) = 2.9145
 Depth to water (feet) = 4.80 Calculated Purge (gal) = 8.7435 (3 casing vols.)
 Water column height (feet) = 4.35 Actual Purge (gal) = 5 gal

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
<u>8/18/04</u>	<u>1123</u>	_____	<u>61.6</u>	<u>555</u>	<u>7.34</u>	<u>Clear</u>	_____	<u>4.93</u>
<u>8/18/04</u>	<u>1128</u>	_____	<u>61.8</u>	<u>539</u>	<u>7.15</u>	<u>Clear</u>	_____	<u>4.96</u>
<u>8/18/04</u>	<u>1134</u>	_____	<u>59.2</u>	<u>534</u>	<u>6.98</u>	<u>Clear</u>	_____	<u>4.96</u>
<u>8/18/04</u>	<u>1139</u>	_____	<u>58.9</u>	<u>538</u>	<u>6.95</u>	<u>Clear</u>	_____	<u>4.86</u>
<u>8/18/04</u>	<u>1143</u>	_____	<u>58.9</u>	<u>552</u>	<u>6.98</u>	<u>Clear</u>	_____	<u>4.86</u>
<u>8/18/04</u>	<u>1145</u>	_____	<u>Sample Collected</u>	_____	_____	_____	_____	_____

DO
mg/L
1.91
1.78
1.41
1.74
1.52

PURGING EQUIPMENT

___ Well Wizard Bladder Pump ___ Bailer (disposable)
 ___ Active Extraction Well Pump ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated Tubing
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

___ WW Bladder Pump ___ Bailer (disposable)
 ___ Sample Port ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated: Tubing
 Other: _____

Analyses: B270, AK 102 + AK 103, 8021
 Sample Vessel / Preservative: HCL + NP Odor: No

Well Integrity: Good
 Remarks: Not to surface grade

Signature: J Boyer Page 1 of _____

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 0016.0022.00018 Purged By: J Boyer Well I.D.: MW-16
 Client Name: AIG Sampled By: J Boyer Sample I.D.: MW-16
 Location: WARD'S COVE, CRAIG AK What QA Samples?: _____

Date Purged: 8/18/04 Start (2400hr): 1324 End (2400hr): 1351
 Date Sampled: 8/18/04 Sample Time (2400hr): 1351

Casing Diameter: 2" _____ 3" _____ 4" X 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 9.60 Casing Volume (gal) = 2.85
 Depth to water (feet) = 5.35 Calculated Purge (gal) = 8.54 (3 casing vols.)
 Water column height (feet) = 4.25 Actual Purge (gal) = 4.5-6

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)	DO (mg/L)
<u>8/18</u>	<u>1324</u>	<u>Ø</u>	<u>60.6</u>	<u>525</u>	<u>7.19</u>	<u>Cloudy</u>	↓	<u>5.41</u>	<u>1.0</u>
	<u>1333</u>		<u>58.6</u>	<u>619</u>	<u>7.08</u>	<u>Clear</u>		<u>5.41</u>	<u>3.08</u>
	<u>1334</u>		<u>58.4</u>	<u>616</u>	<u>7.05</u>	<u>"</u>		<u>5.42</u>	<u>1.35</u>
	<u>1340</u>		<u>57.4</u>	<u>620</u>	<u>7.04</u>	<u>"</u>		<u>5.42</u>	<u>2.26</u>
	<u>1351</u>		<u>Sample</u>	<u>Collected</u>					

PURGING EQUIPMENT

___ Well Wizard Bladder Pump ___ Bailer (disposable)
 ___ Active Extraction Well Pump ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated Tubing
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

___ WW Bladder Pump ___ Bailer (disposable)
 ___ Sample Port ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated: Tubing
 Other: _____

Analyses: 8270, AK102, AK103, 8021B
 Sample Vessel / Preservative: HCl + NP Odor: No

Well Integrity: Good
 Remarks: _____

Signature: Jessie Boyer Page 1 of _____

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 006.0022.00018 Purged By: J. Boyer Well I.D.: MW-17
 Client Name: ATG Sampled By: J. Boyer Sample I.D.: MW-17
 Location: WARDS Cove Craig AK What QA Samples?: _____

Date Purged: 8/18/04 Start (2400hr): 1404 End (2400hr): 1415
 Date Sampled: 8/18/04 Sample Time (2400hr): 1415

Casing Diameter: 2" _____ 3" _____ 4" X 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 8.95 Casing Volume (gal) = 1.54
 Depth to water (feet) = 6.65 Calculated Purge (gal) = 4.623 (3 casing vols.)
 Water column height (feet) = 2.30 Actual Purge (gal) = 13.4

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
<u>8/18</u>	<u>1405</u>	<u>0</u>	<u>59.8</u>	<u>473</u>	<u>7.08</u>	<u>Clear</u>	↓	<u>6.70</u>
	<u>1407</u>		<u>57.4</u>	<u>469</u>	<u>7.00</u>	<u>"</u>		<u>6.71</u>
	<u>1411</u>		<u>57.2</u>	<u>467</u>	<u>6.90</u>	<u>"</u>		<u>6.72</u>
	<u>1414</u>		<u>57.0</u>	<u>460</u>	<u>6.88</u>	<u>"</u>		<u>6.72</u>
	<u>1415</u>		<u>Samples collected</u>					

DO
mg/L
3.19
3.55
3.64
3.52

PURGING EQUIPMENT

___ Well Wizard Bladder Pump ___ Bailer (disposable)
 ___ Active Extraction Well Pump ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated Tubing
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

___ WW Bladder Pump ___ Bailer (disposable)
 ___ Sample Port ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated: Tubing
 Other: _____

Analyses: BZ70, AK 102, AK 103, B021 B
 Sample Vessel / Preservative: HCL + NP Odor: NO

Well Integrity: Good
 Remarks: _____

Signature: J. Boyer Page 1 of _____

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 0060022.0018 Purged By: SNelson Well I.D.: MW-18
 Client Name: AIG Sampled By: SNelson Sample I.D.: MW-18
 Location: _____ What QA Samples?: _____

Date Purged: 8-17-04 Start (2400hr): _____ End (2400hr): _____
 Date Sampled: 8-17-04 Sample Time (2400hr): _____

Casing Diameter: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 12.66 Casing Volume (gal) = ~ 0.5
 Depth to water (feet) = 9.35 Calculated Purge (gal) = _____ (3 casing vols.)
 Water column height (feet) = 3.31 Actual Purge (gal) = _____

FIELD MEASUREMENTS								
Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
8-17	9:30	0	14.2	407	6.13	clear	/ 00 2.4	
	9:45	~.25	13.8	400	6.05	clear		
	10:00	~.5	13.6	415	6.07	clear		
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
<input type="checkbox"/> Well Wizard Bladder Pump	<input type="checkbox"/> Bailer (disposable)	<input type="checkbox"/> WW Bladder Pump	<input type="checkbox"/> Bailer (disposable)
<input type="checkbox"/> Active Extraction Well Pump	<input type="checkbox"/> Bailer (PVC)	<input type="checkbox"/> Sample Port	<input type="checkbox"/> Bailer (PVC)
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)	<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)
<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated _____	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated: _____
Other: _____	<u>New poly tubing</u>	Other: _____	
Pump Depth: _____ (feet)			

Analyses: ORO PRO BTEX PAAs Pb
 Sample Vessel / Preservative: _____ Odor: _____

Well Integrity: slightly bent casing
 Remarks: _____

Signature: [Signature] Page 1 of 1

GROUNDWATER SAMPLE FIELD DATA SHEET

SLR

Project No: 006.0012.00018 Purged By: Boyer Well I.D.: MW-20
 Client Name: ATG Sampled By: J Boyer Sample I.D.: MW-20
 Location: WARDS Cove, Craig AK What QA Samples?: _____

Date Purged: 8/18/04 Start (2400hr): 1543 End (2400hr): 1554
 Date Sampled: 8/18/04 Sample Time (2400hr): 1554

Casing Diameter: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 11.10 Casing Volume (gal) = 0.6120
 Depth to water (feet) = 7.50 Calculated Purge (gal) = 1.8360 (3 casing vols.)
 Water column height (feet) = 3.60 Actual Purge (gal) = 1.5

FIELD MEASUREMENTS							
Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	DTW (ft)
<u>8/18/04</u>	<u>1543</u>	<u>0</u>	<u>60.1</u>	<u>609</u>	<u>7.03</u>	<u>Clear</u>	<u>7.50</u>
<u>8/18/04</u>	<u>1545</u>	_____	<u>58.2</u>	<u>608</u>	<u>6.90</u>	<u>Clear</u>	_____
<u>8/18/04</u>	<u>1549</u>	_____	<u>57.7</u>	<u>603</u>	<u>6.86</u>	<u>Clear</u>	_____
<u>8/18/04</u>	<u>1553</u>	_____	<u>57.7</u>	<u>604</u>	<u>6.83</u>	<u>Clear</u>	_____
<u>8/18/04</u>	<u>1554</u>	_____	<u>Samples Collected</u>		_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

DO mg/L
1.53
1.67
1.70
1.01

PURGING EQUIPMENT

Well Wizard Bladder Pump Bailer (disposable)
 Active Extraction Well Pump Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated Tubing
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

WW Bladder Pump Bailer (disposable)
 Sample Port Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Peristaltic Pump Dedicated: Tubing
 Other: _____

Analyses: _____
 Sample Vessel / Preservative: _____ Odor: NO

Well Integrity: Good
 Remarks: _____

Signature: Jennifer Boyer Page 1 of _____

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 006-0022-00018 Purged By: J Boyer Well I.D.: MW-21
 Client Name: AIG Sampled By: J Boyer Sample I.D.: MW-21
 Location: WARDS Cove, Craig AK What QA Samples?: _____

Date Purged: 8/19/04 Start (2400hr): 934 End (2400hr): 945
 Date Sampled: 8/19/04 Sample Time (2400hr): 945

Casing Diameter: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 10.80 Casing Volume (gal) = 0.8364
 Depth to water (feet) = 5.88 Calculated Purge (gal) = 2.5092 (3 casing vols.)
 Water column height (feet) = 4.92 Actual Purge (gal) = 1.5-2

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (umhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)	
8/19	936	0	57.3	394	6.85	Clear		5.89	
"	941		57.1	415	6.85	"			
"	944		57.2	425	6.85	"			
"	945		Samples Collected						

DO
mg/L
1.03
1.25
1.27

PURGING EQUIPMENT

___ Well Wizard Bladder Pump ___ Bailer (disposable)
 ___ Active Extraction Well Pump ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated Tubing
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

___ WW Bladder Pump ___ Bailer (disposable)
 ___ Sample Port ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated: Tubing
 Other: _____

Analyses: Total Pb, AK 102, AK 103, 8270, 8210, 8021 B
 Sample Vessel / Preservative: HCL, NP, HNO3 Odor: No

Well Integrity: Good
 Remarks: Iron rich sediment removed from well during purging

Signature: J Boyer Page 1 of _____

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 006.0022.00018 Purged By: J Boyer Well I.D.: MW-22
 Client Name: ATG Sampled By: J Boyer Sample I.D.: MW-22
 Location: WARDS Cove, Craig AK What QA Samples?: _____

Date Purged: 8/18/04 Start (2400hr): 1504 End (2400hr): 1518
 Date Sampled: 8/18/04 Sample Time (2400hr): 1518

Casing Diameter: 2" _____ 3" _____ 4" 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 8.30 Casing Volume (gal) = 1,2261
 Depth to water (feet) = 6.47 Calculated Purge (gal) = 3.67 (3 casing vols.)
 Water column height (feet) = 1.83 Actual Purge (gal) = 2.5

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (umhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
<u>8/18</u>	<u>1504</u>	<u>0</u>	<u>63.4</u>	<u>990</u>	<u>6.92</u>	<u>Clear</u>		<u>6.58</u>
	<u>1508</u>		<u>60.6</u>	<u>795</u>	<u>6.84</u>	<u>"</u>		<u>6.59</u>
	<u>1512</u>		<u>53.7</u>	<u>710</u>	<u>6.74</u>	<u>"</u>		<u>6.61</u>
	<u>1515</u>		<u>59.4</u>	<u>699</u>	<u>6.75</u>	<u>"</u>		<u>6.71</u>
<u>✓</u>	<u>1518</u>		<u>58.4</u>	<u>700</u>	<u>6.74</u>	<u>"</u>		<u>6.65</u>

DO mg/L
 1.41
 1.81
 1.55
 1.98

PURGING EQUIPMENT

___ Well Wizard Bladder Pump
 ___ Active Extraction Well Pump
 ___ Submersible Pump
 Peristaltic Pump
 Other: _____
 Pump Depth: _____ (feet)

___ Bailer (disposable)
 ___ Bailer (PVC)
 ___ Bailer (Stainless Steel)
 Dedicated Tubing

SAMPLING EQUIPMENT

___ WW Bladder Pump
 ___ Sample Port
 ___ Submersible Pump
 Peristaltic Pump
 Other: _____

___ Bailer (disposable)
 ___ Bailer (PVC)
 ___ Bailer (Stainless Steel)
 Dedicated: Tubing

Analyses: 0270, AK 102, AK 102, 80213
 Sample Vessel / Preservative: HCL + NP Odor: NO

Well Integrity: good
 Remarks: _____

Signature: Jennifer Boyer Page 1 of _____

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 006.0022.00018 Purged By: Boyer Well I.D.: MW-23
 Client Name: AIG Sampled By: J. Boyer Sample I.D.: MW-23
 Location: WARD'S Cove, Craig AK What QA Samples?: _____

Date Purged: 8/18/04 Start (2400hr): 1145 End (2400hr): 1153
 Date Sampled: 8/18/04 Sample Time (2400hr): 1153

Casing Diameter: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 12.26 Casing Volume (gal) = 0.2822
 Depth to water (feet) = 10.60 Calculated Purge (gal) = 0.8464 (3 casing vols.)
 Water column height (feet) = 1.64 Actual Purge (gal) = 1.0

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (umhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
<u>8/18</u>	<u>1145</u>	<u>0</u>	<u>56.5</u>	<u>>3999</u>	<u>6.29</u>	<u>Clear</u>		<u>10.60</u>
	<u>1147</u>		<u>54.9</u>	<u>>3999</u>	<u>6.38</u>	<u>"</u>		
	<u>1150</u>		<u>54.1</u>	<u>>3999</u>	<u>6.36</u>	<u>"</u>		
	<u>1153</u>		<u>Samples Collected</u>		<u>"</u>			

Pb mg/L
3.28
4.30
4.84

PURGING EQUIPMENT

___ Well Wizard Bladder Pump ___ Bailer (disposable)
 ___ Active Extraction Well Pump ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated tubing
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

___ WW Bladder Pump ___ Bailer (disposable)
 ___ Sample Port ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated: Tubing
 Other: _____

Analyses: total Pb
 Sample Vessel / Preservative: HNO3 Odor: No

Well Integrity: Good
 Remarks: Cut stick up well to surface grade

Signature: J. Boyer Page 1 of 1

GROUNDWATER SAMPLE FIELD DATA SHEET

Project No. 006.0022.00018 Purged By: J. Boyer Well I.D.: MW-24
 Client Name: AIG Sampled By: J. Boyer Sample I.D.: MW-24
 Location: WARD'S COVE CRAIG AK What QA Samples?: _____

Date Purged: 8/18/04 Start (2400hr): 947 End (2400hr): 958
 Date Sampled: 8/18/04 Sample Time (2400hr): 958

Casing Diameter: 2" 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = 12.40 Casing Volume (gal) = 0.4012
 Depth to water (feet) = 10.06 Calculated Purge (gal) = 1.2036 (3 casing vols.)
 Water column height (feet) = 2.36 Actual Purge (gal) = 0.125-1.5

FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees F)	Conductivity (µmhos/cm)	pH (units)	Color (visual)	Turbidity (NTU)	DTW (ft)
<u>8/18</u>	<u>948</u>	_____	<u>58.2</u>	<u>673</u>	<u>6.32</u>	<u>Clear</u>	↓	<u>10.06</u>
_____	<u>952</u>	_____	<u>58.5</u>	<u>669</u>	<u>6.29</u>	"		<u>10.30</u>
_____	<u>955</u>	_____	<u>56.4</u>	<u>608</u>	<u>6.34</u>	"		<u>10.31</u>
_____	<u>958</u>	_____	_____	_____	_____	_____		_____

DO
mg/L
2.01
1.23

PURGING EQUIPMENT

___ Well Wizard Bladder Pump ___ Bailer (disposable)
 ___ Active Extraction Well Pump ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated Tubing
 Other: _____
 Pump Depth: _____ (feet)

SAMPLING EQUIPMENT

___ WW Bladder Pump ___ Bailer (disposable)
 ___ Sample Port ___ Bailer (PVC)
 ___ Submersible Pump ___ Bailer (Stainless Steel)
 Peristaltic Pump Dedicated Tubing
 Other: _____

Analyses: Total Lead
 Sample Vessel / Preservative: AW3 Odor: NO

Well Integrity: Good
 Remarks: No lock

Signature: Jennifer Boyer Page 1 of _____

APPENDIX E

**GROUNDWATER SAMPLING LABORATORY REPORTS
(ON CD)**













STL

STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: August 23, 2004

TO: Steve Nelson
SLR International Corp
22122 20th Avenue SE, Bldg H, Ste 150
Bothell, WA 98021

PROJECT: Wards Cove Packing Craig AK

REPORT NUMBER: 122975

TOTAL NUMBER OF PAGES: _____

Enclosed are the test results for seven samples received at STL Seattle on August 19, 2004.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

A handwritten signature in cursive script that reads "Darla Powell".

Darla Powell
Project Manager

STL Seattle is a part of Severn Trent Laboratories, Inc.

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender immediately at 253-922-2310 and destroy this report immediately.

STL Seattle

Sample Identification:

<u>Lab. No.</u>	<u>Client ID</u>	<u>Date/Time Sampled</u>	<u>Matrix</u>
122975-1	SSR-5	08-17-04 14:35	solid
122975-2	SSR-1	08-17-04 14:00	solid
122975-3	SSR-4	08-17-04 14:25	solid
122975-4	SSR-3	08-17-04 14:20	solid
122975-5	SSR-2	08-17-04 14:05	solid
122975-6	SSR-6	08-17-04 16:00	solid
122975-7	SSR-7	08-17-04 16:25	solid

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00002

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-5
Lab ID:	122975-01
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	83.59
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	157	X9	38	141
2-Fluorobiphenyl	85.1		42	140
Terphenyl-d14	98		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	ND	22	9.75	
2-Methylnaphthalene	ND	22	5.72	
2-Chloronaphthalene	ND	22	7.43	
Acenaphthylene	ND	22	6.48	
Acenaphthene	ND	22	5.64	
Fluorene	ND	22	7.11	
Phenanthrene	ND	22	6.54	
Anthracene	ND	22	4.18	
Fluoranthene	ND	22	11.1	
Pyrene	ND	22	3.74	
Benzo(a)anthracene	ND	22	11.1	
Chrysene	ND	22	7.87	
Benzofluoranthenes	ND	44	9.97	
Benzo(a)pyrene	ND	22	6.96	
Indeno(1,2,3-cd)pyrene	ND	22	5.02	
Dibenz(a,h)anthracene	ND	22	6.83	
Benzo(g,h,i)perylene	ND	22	5.29	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-1
Lab ID:	122975-02
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	81.33
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	74.9		38	141
2-Fluorobiphenyl	66.6		42	140
Terphenyl-d14	69.7		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	ND	22.9	10.1	
2-Methylnaphthalene	ND	22.9	5.95	
2-Chloronaphthalene	ND	22.9	7.72	
Acenaphthylene	ND	22.9	6.74	
Acenaphthene	ND	22.9	5.87	
Fluorene	ND	22.9	7.39	
Phenanthrene	ND	22.9	6.8	
Anthracene	ND	22.9	4.35	
Fluoranthene	ND	22.9	11.6	
Pyrene	ND	22.9	3.89	
Benzo(a)anthracene	ND	22.9	11.6	
Chrysene	ND	22.9	8.18	
Benzofluoranthenes	ND	45.8	10.4	
Benzo(a)pyrene	ND	22.9	7.24	
Indeno(1,2,3-cd)pyrene	ND	22.9	5.22	
Dibenz(a,h)anthracene	ND	22.9	7.1	
Benzo(g,h,i)perylene	ND	22.9	5.5	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-4
Lab ID:	122975-03
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	95.21
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	86		38	141
2-Fluorobiphenyl	72.6		42	140
Terphenyl-d14	83.7		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	ND	20.3	9	
2-Methylnaphthalene	12.2	20.3	5.28	J
2-Chloronaphthalene	ND	20.3	6.85	
Acenaphthylene	ND	20.3	5.98	
Acenaphthene	ND	20.3	5.21	
Fluorene	ND	20.3	6.56	
Phenanthrene	ND	20.3	6.03	
Anthracene	ND	20.3	3.86	
Fluoranthene	ND	20.3	10.3	
Pyrene	ND	20.3	3.45	
Benzo(a)anthracene	ND	20.3	10.3	
Chrysene	ND	20.3	7.26	
Benzofluoranthenes	13.6	40.6	9.2	J
Benzo(a)pyrene	6.96	20.3	6.43	J
Indeno(1,2,3-cd)pyrene	8.55	20.3	4.63	J
Dibenz(a,h)anthracene	ND	20.3	6.31	
Benzo(g,h,i)perylene	11.1	20.3	4.88	J

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-3
Lab ID:	122975-04
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	85.66
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	130		38	141
2-Fluorobiphenyl	84.8		42	140
Terphenyl-d14	68		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	ND	21.7	9.61	
2-Methylnaphthalene	ND	21.7	5.64	
2-Chloronaphthalene	ND	21.7	7.32	
Acenaphthylene	ND	21.7	6.39	
Acenaphthene	ND	21.7	5.57	
Fluorene	ND	21.7	7.01	
Phenanthrene	ND	21.7	6.44	
Anthracene	ND	21.7	4.12	
Fluoranthene	ND	21.7	11	
Pyrene	220	21.7	3.69	
Benzo(a)anthracene	ND	21.7	11	
Chrysene	ND	21.7	7.76	
Benzofluoranthenes	47.6	43.4	9.83	
Benzo(a)pyrene	20.1	21.7	6.87	J
Indeno(1,2,3-cd)pyrene	ND	21.7	4.95	
Dibenz(a,h)anthracene	ND	21.7	6.74	
Benzo(g,h,i)perylene	ND	21.7	5.22	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-2
Lab ID:	122975-05
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	85.47
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	74.1		38	141
2-Fluorobiphenyl	61.5		42	140
Terphenyl-d14	78.8		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	ND	23.2	10.3	
2-Methylnaphthalene	ND	23.2	6.04	
2-Chloronaphthalene	ND	23.2	7.84	
Acenaphthylene	ND	23.2	6.84	
Acenaphthene	ND	23.2	5.96	
Fluorene	ND	23.2	7.5	
Phenanthrene	ND	23.2	6.9	
Anthracene	ND	23.2	4.41	
Fluoranthene	ND	23.2	11.7	
Pyrene	ND	23.2	3.95	
Benzo(a)anthracene	ND	23.2	11.7	
Chrysene	ND	23.2	8.31	
Benzofluoranthenes	ND	46.5	10.5	
Benzo(a)pyrene	ND	23.2	7.35	
Indeno(1,2,3-cd)pyrene	ND	23.2	5.3	
Dibenz(a,h)anthracene	ND	23.2	7.21	
Benzo(g,h,i)perylene	ND	23.2	5.59	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-6
Lab ID:	122975-06
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	78.7
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	70.6		38	141
2-Fluorobiphenyl	67.4		42	140
Terphenyl-d14	69.2		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	ND	23.9	10.6	
2-Methylnaphthalene	ND	23.9	6.21	
2-Chloronaphthalene	ND	23.9	8.06	
Acenaphthylene	ND	23.9	7.03	
Acenaphthene	ND	23.9	6.13	
Fluorene	ND	23.9	7.71	
Phenanthrene	ND	23.9	7.09	
Anthracene	ND	23.9	4.54	
Fluoranthene	ND	23.9	12.1	
Pyrene	ND	23.9	4.06	
Benzo(a)anthracene	ND	23.9	12.1	
Chrysene	ND	23.9	8.54	
Benzofluoranthenes	ND	47.8	10.8	
Benzo(a)pyrene	ND	23.9	7.56	
Indeno(1,2,3-cd)pyrene	ND	23.9	5.44	
Dibenz(a,h)anthracene	ND	23.9	7.41	
Benzo(g,h,i)perylene	ND	23.9	5.74	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-5
Lab ID:	122975-01
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	83.59
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	109		50	150
n-triacontane-d62	114		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	4370	22.1	
RRO (nC25-nC36)	251	55.3	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-1
Lab ID:	122975-02
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	81.33
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	104		50	150
n-triacontane-d62	112		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	24.2	
RRO (nC25-nC36)	ND	60.5	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-4
Lab ID:	122975-03
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	95.21
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	106		50	150
n-triacontane-d62	112		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	76.1	19.7	
RRO (nC25-nC36)	ND	49.2	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-3
Lab ID:	122975-04
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	85.66
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	117		50	150
n-triacontane-d62	115		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	6060	217	D5
RRO (nC25-nC36)	462	54.2	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-2
Lab ID:	122975-05
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	85.47
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	108		50	150
n-triacontane-d62	125		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	145	20.8	
RRO (nC25-nC36)	ND	52	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-6
Lab ID:	122975-06
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	78.7
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	102		50	150
n-triacontane-d62	114		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	21.8	
RRO (nC25-nC36)	ND	54.4	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-7
Lab ID:	122975-07
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	86.18
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	107		50	150
n-triacontane-d62	125		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	22.9	
RRO (nC25-nC36)	ND	57.1	

STL Seattle

Lab ID:	Method Blank - SS1166
Date Received:	-
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	69.4		38	141
2-Fluorobiphenyl	68.5		42	140
Terphenyl-d14	54.1		42	151

Sample results are on an as received basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	ND	20	8.86	
2-Methylnaphthalene	ND	20	5.2	
2-Chloronaphthalene	ND	20	6.75	
Acenaphthylene	ND	20	5.89	
Acenaphthene	ND	20	5.13	
Fluorene	ND	20	6.46	
Phenanthrene	ND	20	5.94	
Anthracene	ND	20	3.8	
Fluoranthene	ND	20	10.1	
Pyrene	ND	20	3.4	
Benzo(a)anthracene	ND	20	10.1	
Chrysene	ND	20	7.15	
Benzofluoranthenes	ND	40	9.06	
Benzo(a)pyrene	ND	20	6.33	
Indeno(1,2,3-cd)pyrene	ND	20	4.56	
Dibenz(a,h)anthracene	ND	20	6.21	
Benzo(g,h,i)perylene	ND	20	4.81	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: SS1166
Date Prepared: 8/19/2004
Date Analyzed: 8/19/2004
QC Batch ID: SS1166

Semivolatile Organics by USEPA Method 8270

Compound Name	Blank Result (ug/kg)	Spike Amount (ug/kg)	BS Result (ug/kg)	BS % Rec.	BSD Result (ug/kg)	BSD % Rec.	RPD	Flag
Naphthalene	0	500	531	106	428	85.7	-21	
2-Methylnaphthalene	0	500	436	87.3	378	75.7	-14	
Acenaphthylene	0	500	453	90.7	429	85.7	-5.7	
Acenaphthene	0	500	510	102	488	97.7	-4.3	
Fluorene	0	500	378	75.5	378	75.7	0.26	
Phenanthrene	0	500	515	103	509	102	-0.98	
Anthracene	0	500	434	86.8	432	86.4	-0.46	
Fluoranthene	0	500	427	85.4	409	81.9	-4.2	
Pyrene	0	500	472	94.3	443	88.7	-6.1	
Benzo(a)anthracene	0	500	404	80.9	416	83.2	2.8	
Chrysene	0	500	481	96.2	454	90.8	-5.8	
Benzofluoranthenes	0	1000	721	72.1	716	71.6	-0.7	
Benzo(a)pyrene	0	500	384	76.7	386	77.2	0.65	
Indeno(1,2,3-cd)pyrene	0	500	552	110	529	106	-3.7	
Dibenz(a,h)anthracene	0	500	541	108	523	105	-2.8	
Benzo(g,h,i)perylene	0	500	607	121	546	109	-10	

STL Seattle

Matrix Spike/Matrix Spike Duplicate Report

Client Sample ID:	SSR-2
Lab ID:	122975-05
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
QC Batch ID:	SS1166

Semivolatile Organics by USEPA Method 8270

Compound Name	Sample Result (ug/kg)	Spike Amount (ug/kg)	MS Result (ug/kg)	MS % Rec.	MSD Result (ug/kg)	MSD % Rec.	RPD	Flag
Naphthalene	0	569	591	104	564	101	-2.9	
2-Methylnaphthalene	0	569	521	91.7	558	99.4	8.1	
Acenaphthylene	0	569	512	90	520	92.7	3	
Acenaphthene	0	569	487	85.6	535	95.3	11	
Fluorene	0	569	492	86.5	492	87.7	1.4	
Phenanthrene	0	569	520	91.4	501	89.3	-2.3	
Anthracene	0	569	489	86.1	479	85.3	-0.93	
Fluoranthene	0	569	416	73.2	442	78.8	7.4	
Pyrene	0	569	440	77.4	465	82.9	6.9	
Benzo(a)anthracene	0	569	489	86	489	87.1	1.3	
Chrysene	0	569	487	85.6	530	94.5	9.9	
Benzofluoranthenes	0	1140	814	71.6	860	76.7	6.9	
Benzo(a)pyrene	0	569	445	78.3	466	83	5.8	
Indeno(1,2,3-cd)pyrene	0	569	543	95.5	586	104	8.5	
Dibenz(a,h)anthracene	0	569	555	97.6	577	103	5.4	
Benzo(g,h,i)perylene	0	569	621	109	620	110	0.91	

STL Seattle

Lab ID:	Method Blank - DS1228
Date Received:	-
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	107		60	120
n-triacontane-d62	120		60	120

Sample results are on an as received basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	20	
RRO (nC25-nC36)	ND	50	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: DS1228
Date Prepared: 8/19/2004
Date Analyzed: 8/19/2004
QC Batch ID: DS1228

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Compound Name	Blank Result (mg/kg)	Spike Amount (mg/kg)	BS Result (mg/kg)	BS % Rec.	BSD Result (mg/kg)	BSD % Rec.	RPD	Flag
DRO (nC10-<nC25)	0	500	533	107	537	107	0	
RRO (nC25-nC36)	0	500	572	114	541	108	-5.4	

STL Seattle

Matrix Spike/Matrix Spike Duplicate Report

Client Sample ID: ANN04SS-49C-SS04-M01
Lab ID: 122977-01
Date Prepared: 8/19/2004
Date Analyzed: 8/19/2004
QC Batch ID: DS1228

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Compound Name	Sample Result (mg/kg)	Spike Amount (mg/kg)	MS Result (mg/kg)	MS % Rec.	MSD Result (mg/kg)	MSD % Rec.	RPD	Flag
DRO (nC10-<nC25)	220	488	723	104	813	115	10	
RRO (nC25-nC36)	1100	488	1340	40.3	1740	114	96	x7

DATA QUALIFIERS AND ABBREVIATIONS

- B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be \leq 30%.
- C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.
- M: GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D: The reported result for this analyte was calculated based on a secondary dilution factor.
- E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL: Maximum Contaminant Level
- MDL: Method Detection Limit
- RL: Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.
- X2: Contaminant does not appear to be "typical" product.
- X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5: Matrix spike recovery was not determined due to the required dilution.
- X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- X8: Surrogate recovery was not determined due to the required dilution.
- X9: Surrogate recovery outside advisory QC limits due to matrix interference.

COOLER RECEIPT FORM

PROJECT Wards Cove Packing

COOLER RECEIVED ON 8/14 AND OPENED ON 8/14 BY JS

[Signature]
(SIGNATURE)

TEMPERATURE UPON RECEIPT: COOLER _____ °C
TEMP. BLANK _____ °C

1. Were custody seals on outside of cooler and intact? *opened by Alaska Air* YES NO
 a. If YES, how many and where: _____
 b. Were signature and date correct? YES NO
2. Were custody papers taped to lid inside cooler? YES NO
3. Were custody papers properly filled out (ink, signed, etc)? *Given wrong copies* YES NO
4. Did you sign custody papers in the appropriate place? YES NO
5. Did you attach shipper's packing slip to this form? YES NO
6. What kind of packing material was used? *None on nest* YES NO
7. Was sufficient ice used (if appropriate)? *bubble wrap on cases* YES NO
8. Were all bottles sealed in separate plastic bags? YES NO
9. Did all bottles arrive in good condition (unbroken)? *1 Broken* YES NO
10. Were all bottle labels complete (no., date, signed, pres, etc)? YES NO
11. Did all bottle labels and tags agree with custody papers? YES NO
12. Were correct bottles used for the test indicated? YES NO
13. If present, were VOA vials checked for absence of air bubbles and noted if found? YES NO
14. Adequate volume of VOA vials received per sample? YES NO
15. Was sufficient amount of sample sent in each bottle? YES NO
16. Were correct preservatives used? ~~YES~~ NO
17. Were extra labels added to pre-tared containers? ~~YES~~ NO
18. Corrective action taken, if necessary:
 - a. Name of person contacted: _____
 - b. Date: _____

SHIPPER'S NAME AND STREET ADDRESS
 SHIPPER'S ACCOUNT NUMBER
 SUP. INTERNATIONAL LEAD
 2500 BATH RD
 BETHEL
 AK 99509

NOT NEGOTIABLE
AIR WAYBILL
 (AIR CONSIGNMENT NOTE)

Air Cargo
Alaska Airlines
 1-800-225-2752
 P.O. BOX 68900
 SEATTLE, WASHINGTON 98168 U.S.A.

CONSIGNEE'S NAME AND STREET ADDRESS
 CONSIGNEE'S ACCOUNT NUMBER

If the carriage involves an ultimate destination or stop in a country, other than the country of departure, the Warsaw Convention may be applicable and the Convention governs and in most cases limits the liability of carriers in respect of loss of or damage to cargo. The agreed stopping places (which may be altered by Carrier in case of necessity) are those places, except the place of departure and the place of destination, set forth on the face hereof or shown in Carriers' timetables as scheduled stopping places for the route. Address of first carrier is the airport of departure. SEE CONDITIONS ON REVERSE HEREOF.

Received in good condition at _____ (LOCATION) _____ on _____ Date/Time

Please print your name _____

Signature _____

ISSUING CARRIER'S AGENT NAME AND CITY

AGENTS IATA CODE _____ ACCOUNT NO. _____

ACCOUNTING INFORMATION (OPTIONAL - ALSO NOTIFY NAME AND ADDRESS)

AIRPORT OF DEPARTURE (ADDR OF FIRST CARRIER) AND REQUESTED ROUTING

ROUTING AND DESTINATION				CURRENCY	CHGE CODE	WT / VAL	OTHER	DECLARED VALUE FOR CARRIAGE	DECLARED VALUE FOR CUSTOMS
TO	BY FIRST CARRIER	TO	BY			PPD	COLL		

AIRPORT OF DESTINATION _____ FLIGHT/DATE _____ for carrier use only _____ FLIGHT/DATE _____ AMOUNT OF INSURANCE _____

HANDLING INFORMATION These commodities licensed by U.S. for ultimate destination. Diversion contrary to U.S. law is prohibited

NO. of PIECES BCP	GROSS WEIGHT	kg. lb.	RATE CLASS	CHARGEABLE WEIGHT	RATE / CHARGE	TOTAL	NATURE AND QUANTITY OF GOODS (INCL DIMENSIONS OR VOLUME)

PREPAID	WEIGHT CHARGE	COLLECT	P-UP ZONE	PICKUP CHARGES	ORIGIN ADVANCE CHARGES	DESCRIPTION OF ORIGIN ADVANCE	ITEMS PREPAID
A.				B.	K.		
	VALUATION CHARGE		DEL ZONE	DELIVERY CHARGES	DEST. ADVANCE CHARGES	DESCRIPTION OF DEST. ADVANCE	ITEMS COLLECT
D.	TAX			C.	L.		

I. TOTAL OTHER CHARGES DUE AGENT

F. OTHER CHARGES AND DESCRIPTION

OTHER CHARGES AND CHARGE CODES	
AC - ANIMAL CONTAINER	CX - DESTINATION COLLECT CREDIT OR THIRD PARTY
AS - ASSEMBLY SERVICE FEE	DA - DESTINATION ADVANCE
AT - ATTENDANT	DB - DISBURSEMENT FEE
AW - AIR WAYBILL FEE	DF - DISTRIBUTION SERVICE FEE
BL - BLACKLIST CERTIFICATE	DL - DELIVERY
BR - BANK RELEASE	FC - COLLECT CHARGES FEE
CA - PART PREPAID CASH, PART COLLECT CREDIT	GT - GOVERNMENT TAX
CB - PART PREPAID CREDIT, PART COLLECT CREDIT	HR - HUMAN REMAINS
CC - ALL CHARGES COLLECT	IN - INSURANCE PREMIUM
CD - CLEARANCE AND HANDLING DESTINATION	LA - LIVE ANIMALS
CE - CONTAINER PURCHASE	MD - MISCELLANEOUS - DUE LAST CARRIER
CF - C.O.D. FEE	PC - PART PREPAID CASH, PART COLLECT CASH
CG - ALL CHARGES COLLECT G.B.L.	PD - PART PREPAID CREDIT, PART COLLECT CASH
CH - CLEARANCE AND HANDLING ORIGIN	PG - PREPAID G.B.L. AND/OR G.T.R.
CP - DESTINATION COLLECT CASH	PK - PACKAGING
CT - CASKET AIRTRAY PURCHASE	PP - PREPAID CASH
	PU - PICK UP
	PX - PREPAID CREDIT
	RA - DANGEROUS GOODS SURCHARGE
	RF - REMIT FOLLOWING COLLECTION FEE
	SD - SURFACE CHARGE - DESTINATION
	SI - STOP IN TRANSIT
	SO - STORAGE - ORIGIN
	SP - SEPARATE EARLY RELEASE
	SR - STORAGE - DESTINATION
	SS - SIGNATURE SERVICE
	ST - STATE SALES TAX
	SU - SURFACE CHARGES
	TR - TRANSIT
	TX - TAXES
	UH - ULD HANDLING
	VS - EXTRAORDINARY VALUE

FOR CARRIERS USE ONLY AT DESTINATION (ALL COLLECT CHARGES IN DESTINATION CURRENCY)

CURRENCY CONVERSION RATES _____ TOTAL COLLECT IN DESTINATION CURRENCY _____

CHARGES AT DESTINATION _____ TOTAL COLLECT CHARGES _____

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0024

Chain of Custody Record

Client: SLR International Corp	Project Manager: Steve Nelson	Date: 8-17-04	Chain of Custody Number: 05997
Address: 22129 20th Ave SE Building H, Suite 150	Telephone Number (Area Code)/Fax Number: 425-422-6800 / 422-412-2118	Lab Number: 122915	Page: 1 of 1
City: Bothell State: WA Zip Code: 98021	Site Contact: Steve Nelson Carrier/Waybill Number	Analysis (Attach list if more space is needed)	
Project Name and Location (State): WARDS Cove Packing, (Craig AK)	Contract/Purchase Order/Quote No.	Special Instructions/ Conditions of Receipt	

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix						Containers & Preservatives																
			Air	Aqueous	Sol	Soil	SW	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	HNOH											
SSR-1	8/17/04	1425			X					X						X	X	X	X	X	X	X	X	BTEX (B206) PAHs (A22708) PCDD (A2102) PCDF (A2103) Total Lead	Run 6W Sample (MIN-18) CN STD
SSR-2	8/17/04	1400			X											X	X	X	X	X	X	X	X		
SSR-4	8/17/04	1425			X											X	X	X	X	X	X	X	X		
SSR-7	8/17/04	1420			X											X	X	X	X	X	X	X	X		
SSR-8	8/17/04	1405			X											X	X	X	X	X	X	X	X		
SSR-10	8/17/04	1000			X											X	X	X	X	X	X	X	X		
SSR-10	8/17/04	1000			X											X	X	X	X	X	X	X	X		
SSR-10	8/17/04	1000			X											X	X	X	X	X	X	X	X		

Cooler: Yes No Cooler Temp: _____

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Sample Disposal Disposed By Lab (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): 24 Hours 48 Hours 5 Days 10 Days 15 Days Other _____

QC Requirements (Specify)

1. Relinquished By: _____ Date: **8/17/04** Time: _____

2. Relinquished By: _____ Date: _____ Time: _____

3. Relinquished By: _____ Date: _____ Time: _____

1. Received By: **[Signature]** Date: **8/17/04** Time: **9:30**

2. Received By: _____ Date: _____ Time: _____

3. Received By: _____ Date: _____ Time: _____



STL

STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: August 23, 2004

TO: Steve Nelson
SLR International Corp
22122 20th Avenue SE, Bldg H, Ste 150
Bothell, WA 98021

PROJECT: Craig AK

REPORT NUMBER: 122993

TOTAL NUMBER OF PAGES: _____

Enclosed are the test results for four samples received at STL Seattle on August 19, 2004.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

Darla Powell
Project Manager

STL Seattle is a part of Severn Trent Laboratories, Inc.

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STL Seattle

Sample Identification:

<u>Lab. No.</u>	<u>Client ID</u>	<u>Date/Time Sampled</u>	<u>Matrix</u>
122993-1	SSR-8	08-18-04 14:30	solid
122993-2	SSR-9	08-18-04 14:35	solid
122993-3	SSR-10	08-18-04 14:36	solid
122993-4	SSR-11	08-18-04 14:37	solid

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00002

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-8
Lab ID:	122993-01
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	84.53
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	79.6		38	141
2-Fluorobiphenyl	49.8		42	140
Terphenyl-d14	121		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	ND	22.6	10	
2-Methylnaphthalene	ND	22.6	5.87	
2-Chloronaphthalene	ND	22.6	7.62	
Acenaphthylene	ND	22.6	6.65	
Acenaphthene	ND	22.6	5.79	
Fluorene	ND	22.6	7.29	
Phenanthrene	ND	22.6	6.71	
Anthracene	ND	22.6	4.29	
Fluoranthene	ND	22.6	11.4	
Pyrene	ND	22.6	3.84	
Benzo(a)anthracene	ND	22.6	11.4	
Chrysene	ND	22.6	8.07	
Benzofluoranthenes	ND	45.2	10.2	
Benzo(a)pyrene	ND	22.6	7.15	
Indeno(1,2,3-cd)pyrene	ND	22.6	5.15	
Dibenz(a,h)anthracene	ND	22.6	7.01	
Benzo(g,h,i)perylene	ND	22.6	5.43	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-9
Lab ID:	122993-02
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	69.64
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	54.9		38	141
2-Fluorobiphenyl	39.2	X9	42	140
Terphenyl-d14	41.9	X9	42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	361	27.5	12.2	
2-Methylnaphthalene	182	27.5	7.14	
2-Chloronaphthalene	ND	27.5	9.27	
Acenaphthylene	1210	27.5	8.09	
Acenaphthene	167	27.5	7.05	
Fluorene	326	27.5	8.87	
Phenanthrene	1540	27.5	8.16	
Anthracene	617	27.5	5.22	
Fluoranthene	2230	27.5	13.9	
Pyrene	2710	27.5	4.67	
Benzo(a)anthracene	927	27.5	13.9	
Chrysene	1340	27.5	9.82	
Benzofluoranthenes	1430	54.9	12.4	
Benzo(a)pyrene	1040	27.5	8.69	
Indeno(1,2,3-cd)pyrene	842	27.5	6.26	
Dibenz(a,h)anthracene	297	27.5	8.53	
Benzo(g,h,i)perylene	1070	27.5	6.61	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-10
Lab ID:	122993-03
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	49.98
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	64		38	141
2-Fluorobiphenyl	70.7		42	140
Terphenyl-d14	89.8		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	ND	37.2	16.5	
2-Methylnaphthalene	ND	37.2	9.67	
2-Chloronaphthalene	ND	37.2	12.5	
Acenaphthylene	194	37.2	10.9	
Acenaphthene	ND	37.2	9.54	
Fluorene	ND	37.2	12	
Phenanthrene	145	37.2	11	
Anthracene	79.7	37.2	7.06	
Fluoranthene	610	37.2	18.8	
Pyrene	686	37.2	6.32	
Benzo(a)anthracene	144	37.2	18.8	
Chrysene	169	37.2	13.3	
Benzofluoranthenes	232	74.4	16.8	
Benzo(a)pyrene	203	37.2	11.8	
Indeno(1,2,3-cd)pyrene	179	37.2	8.48	
Dibenz(a,h)anthracene	ND	37.2	11.5	
Benzo(g,h,i)perylene	218	37.2	8.94	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-11
Lab ID:	122993-04
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	77.81
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	63.4		38	141
2-Fluorobiphenyl	69.3		42	140
Terphenyl-d14	75.6		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	31.4	24.5	10.8	
2-Methylnaphthalene	72	24.5	6.36	
2-Chloronaphthalene	ND	24.5	8.26	
Acenaphthylene	41.6	24.5	7.2	
Acenaphthene	ND	24.5	6.27	
Fluorene	ND	24.5	7.9	
Phenanthrene	ND	24.5	7.27	
Anthracene	ND	24.5	4.65	
Fluoranthene	ND	24.5	12.4	
Pyrene	85.4	24.5	4.16	
Benzo(a)anthracene	ND	24.5	12.4	
Chrysene	ND	24.5	8.75	
Benzo(a)fluoranthene	57.9	48.9	11.1	
Benzo(a)pyrene	21.2	24.5	7.74	J
Indeno(1,2,3-cd)pyrene	ND	24.5	5.58	
Dibenz(a,h)anthracene	ND	24.5	7.6	
Benzo(g,h,i)perylene	47.8	24.5	5.88	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-8
Lab ID:	122993-01
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	84.53
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	99.7		50	150
n-triacontane-d62	109		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	240	20.9	
RRO (nC25-nC36)	160	52.2	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-9
Lab ID:	122993-02
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	69.64
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	105		50	150
n-triacontane-d62	109		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	272	25.2	
RRO (nC25-nC36)	946	63	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-10
Lab ID:	122993-03
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	49.98
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	107		50	150
n-triacontane-d62	120		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	460	35.8	
RRO (nC25-nC36)	122	89.4	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSR-11
Lab ID:	122993-04
Date Received:	8/19/2004
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	77.81
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	100		50	150
n-triacontane-d62	111		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	976	22.6	
RRO (nC25-nC36)	545	56.5	

STL Seattle

Lab ID:	Method Blank - SS1166
Date Received:	-
Date Prepared:	8/19/2004
Date Analyzed:	8/19/2004
% Solids	
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene-d5	69.4		38	141
2-Fluorobiphenyl	68.5		42	140
Terphenyl-d14	54.1		42	151

Sample results are on an as received basis.

Analyte	Result (ug/kg)	RL	MDL	Flags
Naphthalene	ND	20	8.86	
2-Methylnaphthalene	ND	20	5.2	
2-Chloronaphthalene	ND	20	6.75	
Acenaphthylene	ND	20	5.89	
Acenaphthene	ND	20	5.13	
Fluorene	ND	20	6.46	
Phenanthrene	ND	20	5.94	
Anthracene	ND	20	3.8	
Fluoranthene	ND	20	10.1	
Pyrene	ND	20	3.4	
Benzo(a)anthracene	ND	20	10.1	
Chrysene	ND	20	7.15	
Benzofluoranthenes	ND	40	9.06	
Benzo(a)pyrene	ND	20	6.33	
Indeno(1,2,3-cd)pyrene	ND	20	4.56	
Dibenz(a,h)anthracene	ND	20	6.21	
Benzo(g,h,i)perylene	ND	20	4.81	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: SS1166
Date Prepared: 8/19/2004
Date Analyzed: 8/19/2004
QC Batch ID: SS1166

Semivolatile Organics by USEPA Method 8270

Compound Name	Blank Result (ug/kg)	Spike Amount (ug/kg)	BS Result (ug/kg)	BS % Rec.	BSD Result (ug/kg)	BSD % Rec.	RPD	Flag
Naphthalene	0	500	531	106	428	85.7	-21	
2-Methylnaphthalene	0	500	436	87.3	378	75.7	-14	
Acenaphthylene	0	500	453	90.7	429	85.7	-5.7	
Acenaphthene	0	500	510	102	488	97.7	-4.3	
Fluorene	0	500	378	75.5	378	75.7	0.26	
Phenanthrene	0	500	515	103	509	102	-0.98	
Anthracene	0	500	434	86.8	432	86.4	-0.46	
Fluoranthene	0	500	427	85.4	409	81.9	-4.2	
Pyrene	0	500	472	94.3	443	88.7	-6.1	
Benzo(a)anthracene	0	500	404	80.9	416	83.2	2.8	
Chrysene	0	500	481	96.2	454	90.8	-5.8	
Benzofluoranthenes	0	1000	721	72.1	716	71.6	-0.7	
Benzo(a)pyrene	0	500	384	76.7	386	77.2	0.65	
Indeno(1,2,3-cd)pyrene	0	500	552	110	529	106	-3.7	
Dibenz(a,h)anthracene	0	500	541	108	523	105	-2.8	
Benzo(g,h,i)perylene	0	500	607	121	546	109	-10	

STL Seattle

Lab ID:	Method Blank - DS1228
Date Received:	-
Date Prepared:	8/19/2004
Date Analyzed:	8/20/2004
% Solids	
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	107		60	120
n-triacontane-d62	120		60	120

Sample results are on an as received basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	20	
RRO (nC25-nC36)	ND	50	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: DS1228
Date Prepared: 8/19/2004
Date Analyzed: 8/19/2004
QC Batch ID: DS1228

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Compound Name	Blank Result (mg/kg)	Spike Amount (mg/kg)	BS Result (mg/kg)	BS % Rec.	BSD Result (mg/kg)	BSD % Rec.	RPD	Flag
DRO (nC10-<nC25)	0	500	533	107	537	107	0	
RRO (nC25-nC36)	0	500	572	114	541	108	-5.4	

STL Seattle

Matrix Spike/Matrix Spike Duplicate Report

Client Sample ID: ANN04SS-49C-SS04-M01
Lab ID: 122977-01
Date Prepared: 8/19/2004
Date Analyzed: 8/19/2004
QC Batch ID: DS1228

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Compound Name	Sample Result (mg/kg)	Spike Amount (mg/kg)	MS Result (mg/kg)	MS % Rec.	MSD Result (mg/kg)	MSD % Rec.	RPD	Flag
DRO (nC10-<nC25)	220	488	723	104	813	115	10	
RRO (nC25-nC36)	1100	488	1340	40.3	1740	114	96	x7

DATA QUALIFIERS AND ABBREVIATIONS

- B1:** This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- B2:** This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1:** Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2:** Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3:** Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be ≤ 30%.
- C4:** Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.
- M:** GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D:** The reported result for this analyte was calculated based on a secondary dilution factor.
- E:** The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- J:** The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL:** Maximum Contaminant Level
- MDL:** Method Detection Limit
- RL:** Reporting Limit
- N:** See analytical narrative
- ND:** Not Detected
- X1:** Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.
- X2:** Contaminant does not appear to be "typical" product.
- X3:** Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4:** RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a:** RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5:** Matrix spike recovery was not determined due to the required dilution.
- X6:** Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7:** Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a:** Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- X8:** Surrogate recovery was not determined due to the required dilution.
- X9:** Surrogate recovery outside advisory QC limits due to matrix interference.

Client: **SLR** Address: **Steve Nelson** Date: **8-18-04** Chain of Custody Number: **05987**

City: **4254028800** State: **WA** Zip Code: **6465** Lab Number: **122993** Page: **1** of **2**

Project Name and Location (State): **Craig AK** Carrier/Waybill Number: **6502186465**

Contract/Purchase Order/Quote No.: **006002200018** Lab Contact: **PAK 8270**

Special Instructions/Conditions of Receipt: **Standard TAT**

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach list if more space is needed)	
			Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH			
SSRB-8	8-18-04	1430			X									24 TAT
SSRB-9	}	1435												24 TAT
SSRB-10		1436												24 TAT
SSRB-11		1437												24 TAT
SSRB-1		1447												Standard TAT
SSRB-2	}	1445												}
SSRB-3		1451												
SSRB-4		1454												
SSRB-5		1459												
SSRB-6	}	1503												}
SSRB-7		1504												
SSRB-8	8-18-04	1506			X									Standard TAT

Disposal By Lab: Disposal Return To Client Archive For

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown

QC Requirements (Specify): **Std**

1. Relinquished By: **AK** Date: **8-18-04** Time: **1615**

2. Relinquished By: _____ Date: _____ Time: _____

3. Relinquished By: _____ Date: _____ Time: _____

Comments: _____



STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: September 10, 2004

TO: Steve Nelson
SLR International Corp
22122 20th Avenue SE, Bldg H, Ste 150
Bothell, WA 98021

PROJECT:

REPORT NUMBER: 122998

TOTAL NUMBER OF PAGES: _____

Enclosed are the test results for eleven samples received at STL Seattle on August 19, 2004.

Analytical Narrative: The relative percent difference value for dibenz(a,h)anthracene was outside of quality control acceptance limits for the blank spike/blank spike duplicate semivolatile analyses for samples associated with batch SS1180. No corrective action was taken based on the one outlier, since all other quality control parameters were within acceptance range.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

Darla Powell
Project Manager

STL Seattle is a part of Severn Trent Laboratories, Inc.

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STL Seattle

Sample Identification:

<u>Lab. No.</u>	<u>Client ID</u>	<u>Date/Time Sampled</u>	<u>Matrix</u>
122998-1	SSRB-1	08-18-04 14:47	solid
122998-2	SSRB-2	08-18-04 14:45	solid
122998-3	SSRB-3	08-18-04 14:51	solid
122998-4	SSRB-4	08-18-04 14:54	solid
122998-5	SSRB-5	08-18-04 14:59	solid
122998-6	SSRB-6	08-18-04 15:03	solid
122998-7	SSRB-7	08-18-04 15:04	solid
122998-8	SSRB-8	08-18-04 15:06	solid
122998-9	SSRB-9	08-18-04 15:07	solid
122998-10	SSRB-10	08-18-04 15:09	solid
122998-11	SSRB-11	08-18-04 15:10	solid

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00002

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-1
Lab ID:	122998-01
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	77.1
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	112		38	141
2 - Fluorobiphenyl	68		42	140
p - Terphenyl - d14	85.9		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	37.3	23.7	
2-Methylnaphthalene	ND	23.7	
2-Chloronaphthalene	ND	23.7	
Acenaphthylene	31	23.7	
Acenaphthene	ND	23.7	
Fluorene	ND	23.7	
Phenanthrene	ND	23.7	
Anthracene	ND	23.7	
Fluoranthene	72.5	23.7	
Pyrene	83.4	23.7	
Benzo(a)anthracene	47.3	23.7	
Chrysene	67.1	23.7	
Benzo(a)fluoranthene	91.9	47.4	
Benzo(a)pyrene	49.3	23.7	
Indeno(1,2,3-cd)pyrene	51.8	23.7	
Dibenz(a,h)anthracene	ND	23.7	
Benzo(g,h,i)perylene	50.1	23.7	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-2
Lab ID:	122998-02
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	69.55
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	115		38	141
2 - Fluorobiphenyl	87.5		42	140
p - Terphenyl - d14	141		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	ND	27.9	
2-Methylnaphthalene	ND	27.9	
2-Chloronaphthalene	ND	27.9	
Acenaphthylene	ND	27.9	
Acenaphthene	ND	27.9	
Fluorene	ND	27.9	
Phenanthrene	ND	27.9	
Anthracene	ND	27.9	
Fluoranthene	ND	27.9	
Pyrene	ND	27.9	
Benzo(a)anthracene	ND	27.9	
Chrysene	ND	27.9	
Benzo(a)fluoranthene	ND	55.9	
Benzo(a)pyrene	ND	27.9	
Indeno(1,2,3-cd)pyrene	ND	27.9	
Dibenz(a,h)anthracene	ND	27.9	
Benzo(g,h,i)perylene	ND	27.9	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-3
Lab ID:	122998-03
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	53.35
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	113		38	141
2 - Fluorobiphenyl	73.9		42	140
p - Terphenyl - d14	143		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	60.2	32.3	
2-Methylnaphthalene	48.8	32.3	
2-Chloronaphthalene	ND	32.3	
Acenaphthylene	ND	32.3	
Acenaphthene	ND	32.3	
Fluorene	43.9	32.3	
Phenanthrene	134	32.3	
Anthracene	ND	32.3	
Fluoranthene	104	32.3	
Pyrene	106	32.3	
Benzo(a)anthracene	ND	32.3	
Chrysene	40.7	32.3	
Benzo(a)fluoranthene	77.2	64.5	
Benzo(a)pyrene	ND	32.3	
Indeno(1,2,3-cd)pyrene	ND	32.3	
Dibenz(a,h)anthracene	ND	32.3	
Benzo(g,h,i)perylene	34.9	32.3	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-4
Lab ID:	122998-04
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	81.45
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	140		38	141
2 - Fluorobiphenyl	113		42	140
p - Terphenyl - d14	144		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	ND	24	
2-Methylnaphthalene	ND	24	
2-Chloronaphthalene	ND	24	
Acenaphthylene	ND	24	
Acenaphthene	ND	24	
Fluorene	ND	24	
Phenanthrene	ND	24	
Anthracene	ND	24	
Fluoranthene	ND	24	
Pyrene	ND	24	
Benzo(a)anthracene	ND	24	
Chrysene	ND	24	
Benzo(a)fluoranthene	ND	48.1	
Benzo(a)pyrene	ND	24	
Indeno(1,2,3-cd)pyrene	ND	24	
Dibenz(a,h)anthracene	ND	24	
Benzo(g,h,i)perylene	ND	24	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-5
Lab ID:	122998-05
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	71.47
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	127		38	141
2 - Fluorobiphenyl	74.1		42	140
p - Terphenyl - d14	146		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	ND	27.5	
2-Methylnaphthalene	ND	27.5	
2-Chloronaphthalene	ND	27.5	
Acenaphthylene	ND	27.5	
Acenaphthene	ND	27.5	
Fluorene	ND	27.5	
Phenanthrene	ND	27.5	
Anthracene	ND	27.5	
Fluoranthene	ND	27.5	
Pyrene	ND	27.5	
Benzo(a)anthracene	ND	27.5	
Chrysene	ND	27.5	
Benzofluoranthenes	ND	55	
Benzo(a)pyrene	ND	27.5	
Indeno(1,2,3-cd)pyrene	ND	27.5	
Dibenz(a,h)anthracene	ND	27.5	
Benzo(g,h,i)perylene	ND	27.5	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-6
Lab ID:	122998-06
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	76.29
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	128		38	141
2 - Fluorobiphenyl	94.4		42	140
p - Terphenyl - d14	163	X9	42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	ND	25.2	
2-Methylnaphthalene	ND	25.2	
2-Chloronaphthalene	ND	25.2	
Acenaphthylene	ND	25.2	
Acenaphthene	ND	25.2	
Fluorene	27.8	25.2	
Phenanthrene	31.4	25.2	
Anthracene	ND	25.2	
Fluoranthene	52.8	25.2	
Pyrene	26.4	25.2	
Benzo(a)anthracene	ND	25.2	
Chrysene	ND	25.2	
Benzo(a)fluoranthene	ND	50.4	
Benzo(a)pyrene	ND	25.2	
Indeno(1,2,3-cd)pyrene	ND	25.2	
Dibenz(a,h)anthracene	ND	25.2	
Benzo(g,h,i)perylene	ND	25.2	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-7
Lab ID:	122998-07
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	79.38
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	131		38	141
2 - Fluorobiphenyl	83.8		42	140
p - Terphenyl - d14	130		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	ND	22.6	
2-Methylnaphthalene	ND	22.6	
2-Chloronaphthalene	ND	22.6	
Acenaphthylene	ND	22.6	
Acenaphthene	ND	22.6	
Fluorene	ND	22.6	
Phenanthrene	ND	22.6	
Anthracene	ND	22.6	
Fluoranthene	ND	22.6	
Pyrene	ND	22.6	
Benzo(a)anthracene	ND	22.6	
Chrysene	ND	22.6	
Benzo(a)fluoranthene	ND	45.1	
Benzo(a)pyrene	ND	22.6	
Indeno(1,2,3-cd)pyrene	ND	22.6	
Dibenz(a,h)anthracene	ND	22.6	
Benzo(g,h,i)perylene	ND	22.6	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-8
Lab ID:	122998-08
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	72.58
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	144	X9	38	141
2 - Fluorobiphenyl	93.3		42	140
p - Terphenyl - d14	135		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	ND	26.6	
2-Methylnaphthalene	ND	26.6	
2-Chloronaphthalene	ND	26.6	
Acenaphthylene	ND	26.6	
Acenaphthene	ND	26.6	
Fluorene	ND	26.6	
Phenanthrene	ND	26.6	
Anthracene	ND	26.6	
Fluoranthene	ND	26.6	
Pyrene	ND	26.6	
Benzo(a)anthracene	ND	26.6	
Chrysene	ND	26.6	
Benzo(a)fluoranthene	ND	53.3	
Benzo(a)pyrene	ND	26.6	
Indeno(1,2,3-cd)pyrene	ND	26.6	
Dibenz(a,h)anthracene	ND	26.6	
Benzo(g,h,i)perylene	ND	26.6	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-9
Lab ID:	122998-09
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	131		38	141
2 - Fluorobiphenyl	92.6		42	140
p - Terphenyl - d14	66.5		42	151

Sample results are on an as received basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	ND	19.7	
2-Methylnaphthalene	ND	19.7	
2-Chloronaphthalene	ND	19.7	
Acenaphthylene	ND	19.7	
Acenaphthene	ND	19.7	
Fluorene	ND	19.7	
Phenanthrene	ND	19.7	
Anthracene	ND	19.7	
Fluoranthene	ND	19.7	
Pyrene	ND	19.7	
Benzo(a)anthracene	ND	19.7	
Chrysene	ND	19.7	
Benzofluoranthenes	ND	39.3	
Benzo(a)pyrene	ND	19.7	
Indeno(1,2,3-cd)pyrene	ND	19.7	
Dibenz(a,h)anthracene	ND	19.7	
Benzo(g,h,i)perylene	ND	19.7	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-10
Lab ID:	122998-10
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	77.58
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	126		38	141
2 - Fluorobiphenyl	43.9		42	140
p - Terphenyl - d14	138		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	ND	23.5	
2-Methylnaphthalene	ND	23.5	
2-Chloronaphthalene	ND	23.5	
Acenaphthylene	ND	23.5	
Acenaphthene	ND	23.5	
Fluorene	ND	23.5	
Phenanthrene	ND	23.5	
Anthracene	ND	23.5	
Fluoranthene	ND	23.5	
Pyrene	ND	23.5	
Benzo(a)anthracene	ND	23.5	
Chrysene	ND	23.5	
Benzo(a)fluoranthene	ND	46.9	
Benzo(a)pyrene	ND	23.5	
Indeno(1,2,3-cd)pyrene	ND	23.5	
Dibenz(a,h)anthracene	ND	23.5	
Benzo(g,h,i)perylene	ND	23.5	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-11
Lab ID:	122998-11
Date Received:	8/19/2004
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	81.09
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	103		38	141
2 - Fluorobiphenyl	70.1		42	140
p - Terphenyl - d14	137		42	151

Sample results are on a dry weight basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	ND	22.6	
2-Methylnaphthalene	ND	22.6	
2-Chloronaphthalene	ND	22.6	
Acenaphthylene	ND	22.6	
Acenaphthene	ND	22.6	
Fluorene	ND	22.6	
Phenanthrene	ND	22.6	
Anthracene	ND	22.6	
Fluoranthene	ND	22.6	
Pyrene	ND	22.6	
Benzo(a)anthracene	ND	22.6	
Chrysene	ND	22.6	
Benzo(a)fluoranthene	ND	45.2	
Benzo(a)pyrene	ND	22.6	
Indeno(1,2,3-cd)pyrene	ND	22.6	
Dibenz(a,h)anthracene	ND	22.6	
Benzo(g,h,i)perylene	ND	22.6	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-1
Lab ID:	122998-01
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	77.1
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	80.9		50	150
n-triacontane-d62	92.4		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	71.5	24.6	
RRO (nC25-nC36)	ND	61.4	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-2
Lab ID:	122998-02
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	69.55
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	111		50	150
n-triacontane-d62	109		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	27	
RRO (nC25-nC36)	ND	67.5	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-3
Lab ID:	122998-03
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	53.35
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	79.8		50	150
n-triacontane-d62	92.9		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	199	34.4	
RRO (nC25-nC36)	198	86.1	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-4
Lab ID:	122998-04
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	81.45
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	109		50	150
n-triacontane-d62	105		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	23.5	
RRO (nC25-nC36)	ND	58.9	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-5
Lab ID:	122998-05
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	71.47
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	121		50	150
n-triacontane-d62	113		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	26.3	
RRO (nC25-nC36)	ND	65.8	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-6
Lab ID:	122998-06
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	76.29
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	106		50	150
n-triacontane-d62	97.4		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	78.9	24.3	
RRO (nC25-nC36)	83.5	60.7	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-7
Lab ID:	122998-07
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	79.38
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	109		50	150
n-triacontane-d62	96.7		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	23.1	
RRO (nC25-nC36)	ND	57.6	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-8
Lab ID:	122998-08
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	72.58
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	115		50	150
n-triacontane-d62	108		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	26.5	
RRO (nC25-nC36)	ND	66.1	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-9
Lab ID:	122998-09
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	76.03
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	82.2		50	150
n-triacontane-d62	69.1		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	26.1	
RRO (nC25-nC36)	ND	65.2	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-10
Lab ID:	122998-10
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	77.58
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	111		50	150
n-triacontane-d62	106		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	24.6	
RRO (nC25-nC36)	ND	61.4	

STL Seattle

Client Name:	SLR International Corp
Client ID:	SSRB-11
Lab ID:	122998-11
Date Received:	8/19/2004
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	81.09
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	113		50	150
n-triacontane-d62	104		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	22.8	
RRO (nC25-nC36)	ND	57.1	

STL Seattle

Lab ID:	Method Blank - SS1180
Date Received:	-
Date Prepared:	8/30/2004
Date Analyzed:	8/30/2004
% Solids	
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	121		38	141
2 - Fluorobiphenyl	98.2		42	140
p - Terphenyl - d14	97.1		42	151

Sample results are on an as received basis.

Analyte	Result (ug/kg)	RL	Flags
Naphthalene	ND	20	
2-Methylnaphthalene	ND	20	
2-Chloronaphthalene	ND	20	
Acenaphthylene	ND	20	
Acenaphthene	ND	20	
Fluorene	ND	20	
Phenanthrene	ND	20	
Anthracene	ND	20	
Fluoranthene	ND	20	
Pyrene	ND	20	
Benzo(a)anthracene	ND	20	
Chrysene	ND	20	
Benzo(a)fluoranthene	ND	40	
Benzo(a)pyrene	ND	20	
Indeno(1,2,3-cd)pyrene	ND	20	
Dibenz(a,h)anthracene	ND	20	
Benzo(g,h,i)perylene	ND	20	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: SS1180
Date Prepared: 8/30/2004
Date Analyzed: 8/30/2004
QC Batch ID: SS1180

Semivolatile Organics by USEPA Method 8270

Compound Name	Blank Result (ug/kg)	Spike Amount (ug/kg)	BS Result (ug/kg)	BS % Rec.	BSD Result (ug/kg)	BSD % Rec.	RPD	Flag
Naphthalene	0	500	553	111	566	113	1.8	
2-Methylnaphthalene	0	500	544	109	506	101	-7.6	
Acenaphthylene	0	500	573	115	641	128	11	
Acenaphthene	0	500	582	116	646	129	11	
Fluorene	0	500	514	103	521	104	0.97	
Phenanthrene	0	500	586	117	546	109	-7.1	
Anthracene	0	500	620	124	596	119	-4.1	
Fluoranthene	0	500	612	122	632	126	3.2	
Pyrene	0	500	480	96	462	92.4	-3.8	
Benzo(a)anthracene	0	500	608	122	557	111	-9.4	
Chrysene	0	500	550	110	458	91.7	-18	
Benzofluoranthenes	0	1000	1120	112	1140	114	1.8	
Benzo(a)pyrene	0	500	536	107	564	113	5.5	
Indeno(1,2,3-cd)pyrene	0	500	665	133	696	139	4.4	
Dibenz(a,h)anthracene	0	500	626	125	452	90.4	-32	N
Benzo(g,h,i)perylene	0	500	636	127	619	124	-2.4	

STL Seattle

Matrix Spike/Matrix Spike Duplicate Report

Client Sample ID: SSRB-9
Lab ID: 122998-09
Date Prepared: 8/30/2004
Date Analyzed: 8/30/2004
QC Batch ID: SS1180

Semivolatile Organics by USEPA Method 8270

Compound Name	Sample Result (ug/kg)	Spike Amount (ug/kg)	MS Result (ug/kg)	MS % Rec.	MSD Result (ug/kg)	MSD % Rec.	RPD	Flag
Naphthalene	0	612	621	101	608	96.8	-4.2	
2-Methylnaphthalene	0	612	613	100	620	98.6	-1.4	
Acenaphthylene	0	612	743	121	783	125	3.3	
Acenaphthene	0	1220	726	59.3	720	57.3	-3.4	
Fluorene	4.4	612	618	100	732	116	15	
Phenanthrene	0	612	726	119	752	120	0.84	
Anthracene	0	612	743	121	794	126	4	
Fluoranthene	0	612	778	127	792	126	-0.79	
Pyrene	0	1220	652	53.3	624	49.6	-7.2	
Benzo(a)anthracene	0	612	733	120	693	110	-8.7	
Chrysene	0	612	544	88.9	674	107	18	
Benzofluoranthenes	0	1220	1350	110	1440	114	3.6	
Benzo(a)pyrene	0	612	715	117	707	113	-3.5	
Indeno(1,2,3-cd)pyrene	0	612	789	129	807	128	-0.78	
Dibenz(a,h)anthracene	0	612	683	112	720	115	2.6	
Benzo(g,h,i)perylene	0	612	743	121	774	123	1.6	

STL Seattle

Lab ID:	Method Blank - DS1245
Date Received:	-
Date Prepared:	8/31/2004
Date Analyzed:	9/7/2004
% Solids	
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	114		60	120
n-triacontane-d62	108		60	120

Sample results are on an as received basis.

Analyte	Result (mg/kg)	RL	Flags
DRO (nC10-<nC25)	ND	20	
RRO (nC25-nC36)	ND	50	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: DS1245
Date Prepared: 8/31/2004
Date Analyzed: 9/7/2004
QC Batch ID: DS1245

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Compound Name	Blank Result (mg/kg)	Spike Amount (mg/kg)	BS Result (mg/kg)	BS % Rec.	BSD Result (mg/kg)	BSD % Rec.	RPD	Flag
DRO (nC10-<nC25)	4.1	500	577	115	628	125	8.3	
RRO (nC25-nC36)	12	500	480	93.6	538	105	11	

STL Seattle

Matrix Spike/Matrix Spike Duplicate Report

Client Sample ID: 04Y-DT5-05-SS
Lab ID: 123174-01
Date Prepared: 8/31/2004
Date Analyzed: 9/7/2004
QC Batch ID: DS1245

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Compound Name	Sample Result (mg/kg)	Spike Amount (mg/kg)	MS Result (mg/kg)	MS % Rec.	MSD Result (mg/kg)	MSD % Rec.	RPD	Flag
DRO (nC10-<nC25)	2400	637	2400	2.31	2670	45.1	180	X7
RRO (nC25-nC36)	300	638	867	89.6	864	88	-1.8	

DATA QUALIFIERS AND ABBREVIATIONS

- B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be ≤ 30%.
- C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.
- M: GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D: The reported result for this analyte was calculated based on a secondary dilution factor.
- E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL: Maximum Contaminant Level
- MDL: Method Detection Limit
- RL: Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.
- X2: Contaminant does not appear to be "typical" product.
- X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5: Matrix spike recovery was not determined due to the required dilution.
- X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- X8: Surrogate recovery was not determined due to the required dilution.
- X9: Surrogate recovery outside advisory QC limits due to matrix interference.

2.2

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

Chain of
Custody Record

Client SLR		Project Manager Steve Nelson		Date 8-18-04		Chain of Custody Number 05987	
Address		Telephone Number (Area Code)/Fax Number 425-402-8800		Lab Number 20993		Page 1 of 2	
City		Site Contact		Analysis (Attach list if more space is needed)		Special Instructions/ Conditions of Receipt	
Project Name and Location (State) Craig AK		Carrier/Waybill Number		Lab Contact 650 218 6465			
Contract/Purchase Order/Quote No. 006 002200018		Matrix		Containers & Preservatives			
Sample I.D. and Location/Description (Containers for each sample may be combined on one line)		Time		Date			
SSR-8		1430		8-18-04		24 TAT	
SSR-9		1435		~		24 TAT	
SSR-10		1436		~		24 TAT	
SSR-11		1437		~		24 TAT	
SSRB-1		1447		~		Standard TAT	
SSRB-2		1445		~		}	
SSRB-3		1451		~		}	
SSRB-4		1454		~		}	
SSRB-5		1459		~		}	
SSRB-6		1503		~		}	
SSRB-7		1504		~		}	
SSRB-8		1506		8-18-04		Standard TAT	

Yes No Cooler Temp: _____
 Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Archive For _____ Months
 Sample Disposal Disposal By Lab (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days)
 24 Hours 48 Hours 5 Days 10 Days 15 Days Other See note

QC Requirements (Specify)
 1. Relinquished By AKM Date 8-18-04 Time 1615
 2. Relinquished By Shawley Date _____ Time _____
 3. Relinquished By _____ Date _____ Time _____

Comments
 DRO RP PAKS 8270



STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: August 31, 2004

TO: Steve Nelson
SLR International Corp
22122 20th Avenue SE, Bldg H, Ste 150
Bothell, WA 98021

PROJECT:

REPORT NUMBER: 122982

TOTAL NUMBER OF PAGES: _____

Enclosed are the test results for one sample received at STL Seattle on August 19, 2004.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Analytical Narrative: Samples 123001-1 through 123001-4 and 123001-6 and 123001-7 were analyzed for BTEX compound by EPA method 8260B in place of EPA method 8021B due to instrument problems.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

for Darla Powell
Project Manager

STL Seattle is a part of Severn Trent Laboratories, Inc.

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STL Seattle

Sample Identification:

<u>Lab. No.</u>	<u>Client ID</u>	<u>Date/Time Sampled</u>	<u>Matrix</u>
122982-1	MW-18	08-17-04 10:00	Liquid

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00002

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-18
Lab ID:	122982-01
Date Received:	8/19/2004
Date Prepared:	8/27/2004
Date Analyzed:	8/27/2004
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	82.7		80	120
Fluorobenzene	89.8		80	120
Toluene-D8	93.1		80	120
Ethylbenzene-d10	110		80	120
Bromofluorobenzene	106		80	120
Trifluorotoluene	106		80	120

Analyte	Result (ug/L)	RL	Flags
Benzene	ND	1	
Toluene	ND	1	
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-18
Lab ID:	122982-01
Date Received:	8/19/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	111		50	150
n-triacontane-d62	98.5		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	4.72	0.0964	
RRO (nC25-nC36)	0.681	0.0964	

STL Seattle

Client Name	SLR International Corp
Client ID:	MW-18
Lab ID:	122982-01
Date Received:	8/19/04
Date Prepared:	8/20/04
Date Analyzed:	8/20/04
Dilution Factor	5

Metals by ICP-MS - USEPA Method 6020

Analyte	Result (mg/L)	RL	Flags
Lead	ND	0.0025	

STL Seattle

Lab ID:	Method Blank - VOA878
Date Received:	-
Date Prepared:	8/27/2004
Date Analyzed:	8/27/2004
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	86.7		80	120
Fluorobenzene	89.7		80	120
Toluene-D8	91.6		80	120
Ethylbenzene-d10	108		80	120
Bromofluorobenzene	99.4		80	120
Trifluorotoluene	90.2		80	120

Analyte	Result (ug/L)	RL	Flags
Benzene	ND	1	
Toluene	ND	1	
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: VOA878
Date Prepared: 8/27/2004
Date Analyzed: 8/27/2004
QC Batch ID: VOA878

Volatile Organics by USEPA Method 5035\8260B

Compound Name	Blank Result (ug/L)	Spike Amount (ug/L)	BS Result (ug/L)	BS % Rec.	BSD Result (ug/L)	BSD % Rec.	RPD	Flag
Benzene	0	5	4.3	86	4.28	85.5	-0.58	
Toluene	0	5	4.54	90.9	4.55	91	0.11	
Ethylbenzene	0	5	5.04	101	5.19	104	2.9	
m,p-Xylene	0	10	10.2	102	10.6	106	3.8	
o-Xylene	0	5	5.04	101	5.12	102	0.99	

STL Seattle

Lab ID:	Method Blank - DW0658
Date Received:	-
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	90.2		60	120
n-triacontane-d62	98.2		60	120

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	ND	0.1	
RRO (nC25-nC36)	ND	0.1	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: DW0658
Date Prepared: 8/24/2004
Date Analyzed: 8/25/2004
QC Batch ID: DW0658

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Compound Name	Blank Result (mg/L)	Spike Amount (mg/L)	BS Result (mg/L)	BS % Rec.	BSD Result (mg/L)	BSD % Rec.	RPD	Flag
DRO (nC10-<nC25)	0	0.5	0.493	98.7	0.511	102	3.3	
RRO (nC25-nC36)	0	0.5	0.506	101	0.531	106	4.8	

STL Seattle

Lab ID:	Method Blank - TP340
Date Received:	-
Date Prepared:	8/20/04
Date Analyzed:	8/20/04
Dilution Factor	1

Metals by ICP-MS - USEPA Method 6020

Analyte	Result (mg/L)	RL	Flags
Lead	ND	0.0005	

STL Seattle

Matrix Spike Report

Client Sample ID: MW-3
Lab ID: 122879-01
Date Prepared: 8/20/04
Date Analyzed: 8/20/04
QC Batch ID: TP340

Metals by ICP-MS - USEPA Method 6020

Parameter Name	Sample Result (mg/L)	Spike Amount (mg/L)	MS Result (mg/L)	MS % Rec.	Flag
Lead	0	1	1.11	111	

STL Seattle

Duplicate Report

Client Sample ID: MW-3
Lab ID: 122879-01
Date Prepared: 8/20/04
Date Analyzed: 8/20/04
QC Batch ID: TP340

Metals by ICP-MS - USEPA Method 6020

Parameter Name	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD %	Flag
Lead	0	0	NC	

DATA QUALIFIERS AND ABBREVIATIONS

- B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be ≤ 30%.
- C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.
- M: GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D: The reported result for this analyte was calculated based on a secondary dilution factor.
- E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL: Maximum Contaminant Level
- MDL: Method Detection Limit
- RL: Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.
- X2: Contaminant does not appear to be "typical" product.
- X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5: Matrix spike recovery was not determined due to the required dilution.
- X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- X8: Surrogate recovery was not determined due to the required dilution.
- X9: Surrogate recovery outside advisory QC limits due to matrix interference.

20882

Client: SLR International Corp Project Manager: Steve Nelson Chain of Custody Number: 05997
 Address: 22120 20th Ave SE Telephone Number (Area Code)/Fax Number: 425-422-8810/425-412-8118 Lab Number: 20975 Page 1 of 1
 City: Bothell State: WA Zip Code: 98021 Site Contact: Steve Nelson Lab Contact: _____
 Project Name and Location (State): WARDS (Love Packing), Craig AK Carrier/Waybill Number: _____

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix			Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt	
			Aqueous	Sed.	Soil	GC	Unpres.	H2SO4	HNO3	HCl	NaOH			ZnAc/ NaOH
SSR-15	8/17/04	1435		X	X		X							Pull 6W Sample
SSR-1	8/17/04	1400		X	X		X							(11W-18) CN
SSR-4	8/17/04	1425		X	X		X							STD
SSR-2	8/17/04	1420		X	X		X							
SSR-2	8/17/04	1405		X	X		X							
11W-18	8/17/04	1000		X	X		X							
SSR-10	8/17/04	1100		X	X		X							
SSR-7	8/17/04	1025		X	X		X							

Sample Disposal: Return to Client Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown Unknown

QC Requirements (Specify):

1. Relinquished By: [Signature] Date: 8/17/04 Time: 8:15
 2. Relinquished By: _____ Date: _____ Time: _____
 3. Relinquished By: _____ Date: _____ Time: _____

1. Received By: [Signature] Date: 8/16/04 Time: 9:30
 2. Received By: _____ Date: _____ Time: _____
 3. Received By: _____ Date: _____ Time: _____

Comments: _____



STL

STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: August 31, 2004

TO: Steve Nelson
SLR International Corp
22122 20th Avenue SE, Bldg H, Ste 150
Bothell, WA 98021

PROJECT: Wards Cove, Craig AK

REPORT NUMBER: 123001

TOTAL NUMBER OF PAGES: _____

Enclosed are the test results for seven samples received at STL Seattle on August 19, 2004.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Analytical Narrative: Samples 123001-1 through 123001-4 and 123001-6 and 123001-7 were analyzed for BTEX compound by EPA method 8260B in place of EPA method 8021B due to instrument problems.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

for Darla Powell
Project Manager

STL Seattle is a part of Severn Trent Laboratories, Inc.

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STL Seattle

Sample Identification:

<u>Lab. No.</u>	<u>Client ID</u>	<u>Date/Time Sampled</u>	<u>Matrix</u>
123001-1	MW-20	08-18-04 15:54	Liquid
123001-2	MW-22	08-18-04 15:18	Liquid
123001-3	MW-17	08-18-04 14:15	Liquid
123001-4	MW-16	08-18-04 13:51	Liquid
123001-5	MW-24	08-18-04 09:58	Liquid
123001-6	MW-14	08-18-04 10:48	Liquid
123001-7	MW-15	08-18-04 11:45	Liquid

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00002

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-20
Lab ID:	123001-01
Date Received:	8/19/2004
Date Prepared:	8/27/2004
Date Analyzed:	8/27/2004
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	84		80	120
Fluorobenzene	89.6		80	120
Toluene-D8	94.1		80	120
Ethylbenzene-d10	113		80	120
Bromofluorobenzene	106		80	120
Trifluorotoluene	106		80	120

Analyte	Result (ug/L)	RL	Flags
Benzene	ND	1	
Toluene	ND	1	
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-22
Lab ID:	123001-02
Date Received:	8/19/2004
Date Prepared:	8/27/2004
Date Analyzed:	8/27/2004
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	82.1		80	120
Fluorobenzene	89.3		80	120
Toluene-D8	93.3		80	120
Ethylbenzene-d10	112		80	120
Bromofluorobenzene	106		80	120
Trifluorotoluene	105		80	120

Analyte	Result (ug/L)	RL	Flags
Benzene	ND	1	
Toluene	ND	1	
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-17
Lab ID:	123001-03
Date Received:	8/19/2004
Date Prepared:	8/27/2004
Date Analyzed:	8/27/2004
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	82.5		80	120
Fluorobenzene	90.5		80	120
Toluene-D8	93.6		80	120
Ethylbenzene-d10	112		80	120
Bromofluorobenzene	105		80	120
Trifluorotoluene	104		80	120

Analyte	Result (ug/L)	RL	Flags
Benzene	ND	1	
Toluene	ND	1	
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-16
Lab ID:	123001-04
Date Received:	8/19/2004
Date Prepared:	8/27/2004
Date Analyzed:	8/27/2004
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	81.9		80	120
Fluorobenzene	88.5		80	120
Toluene-D8	91.9		80	120
Ethylbenzene-d10	111		80	120
Bromofluorobenzene	103		80	120
Trifluorotoluene	103		80	120

Analyte	Result (ug/L)	RL	Flags
Benzene	ND	1	
Toluene	ND	1	
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-14
Lab ID:	123001-06
Date Received:	8/19/2004
Date Prepared:	8/27/2004
Date Analyzed:	8/27/2004
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	81.6		80	120
Fluorobenzene	90.6		80	120
Toluene-D8	92.9		80	120
Ethylbenzene-d10	110		80	120
Bromofluorobenzene	104		80	120
Trifluorotoluene	103		80	120

Analyte	Result (ug/L)	RL	Flags
Benzene	ND	1	
Toluene	ND	1	
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-15
Lab ID:	123001-07
Date Received:	8/19/2004
Date Prepared:	8/27/2004
Date Analyzed:	8/27/2004
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	84.2		80	120
Fluorobenzene	89.6		80	120
Toluene-D8	93.1		80	120
Ethylbenzene-d10	110		80	120
Bromofluorobenzene	104		80	120
Trifluorotoluene	103		80	120

Analyte	Result (ug/L)	RL	Flags
Benzene	ND	1	
Toluene	ND	1	
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-20
Lab ID:	123001-01
Date Received:	8/19/2004
Date Prepared:	8/20/2004
Date Analyzed:	8/20/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	67.5		34	146
2 - Fluorobiphenyl	60.5		35	143
p - Terphenyl - d14	72.1		35	166

Analyte	Result (ug/L)	RL	MDL	Flags
Naphthalene	ND	0.473	0.165	
2-Methylnaphthalene	ND	0.473	0.141	
2-Chloronaphthalene	ND	0.189	0.0454	
Acenaphthylene	ND	0.189	0.0227	
Acenaphthene	ND	0.189	0.0322	
Fluorene	ND	0.189	0.0161	
Phenanthrene	ND	0.189	0.035	
Anthracene	ND	0.189	0.018	
Fluoranthene	ND	0.189	0.0539	
Pyrene	ND	0.189	0.0274	
Benzo(a)anthracene	ND	0.189	0.0492	
Chrysene	ND	0.189	0.0795	
Benzofluoranthenes	ND	0.946	0.113	
Benzo(a)pyrene	ND	0.189	0.0312	
Indeno(1,2,3-cd)pyrene	ND	0.189	0.0265	
Dibenz(a,h)anthracene	ND	0.189	0.0293	
Benzo(g,h,i)perylene	ND	0.189	0.0482	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-22
Lab ID:	123001-02
Date Received:	8/19/2004
Date Prepared:	8/20/2004
Date Analyzed:	8/20/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	67.7		34	146
2 - Fluorobiphenyl	64.7		35	143
p - Terphenyl - d14	64.9		35	166

Analyte	Result (ug/L)	RL	MDL	Flags
Naphthalene	ND	0.471	0.164	
2-Methylnaphthalene	ND	0.471	0.14	
2-Chloronaphthalene	ND	0.189	0.0452	
Acenaphthylene	ND	0.189	0.0226	
Acenaphthene	ND	0.189	0.032	
Fluorene	ND	0.189	0.016	
Phenanthrene	ND	0.189	0.0349	
Anthracene	ND	0.189	0.0179	
Fluoranthene	ND	0.189	0.0537	
Pyrene	ND	0.189	0.0273	
Benzo(a)anthracene	ND	0.189	0.049	
Chrysene	ND	0.189	0.0792	
Benzofluoranthenes	ND	0.943	0.112	
Benzo(a)pyrene	ND	0.189	0.0311	
Indeno(1,2,3-cd)pyrene	ND	0.189	0.0264	
Dibenz(a,h)anthracene	ND	0.189	0.0292	
Benzo(g,h,i)perylene	ND	0.189	0.0481	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-17
Lab ID:	123001-03
Date Received:	8/19/2004
Date Prepared:	8/20/2004
Date Analyzed:	8/20/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	66.6		34	146
2 - Fluorobiphenyl	66		35	143
p - Terphenyl - d14	80.4		35	166

Analyte	Result (ug/L)	RL	MDL	Flags
Naphthalene	ND	0.474	0.165	
2-Methylnaphthalene	ND	0.474	0.141	
2-Chloronaphthalene	ND	0.19	0.0455	
Acenaphthylene	ND	0.19	0.0227	
Acenaphthene	ND	0.19	0.0322	
Fluorene	ND	0.19	0.0161	
Phenanthrene	ND	0.19	0.0351	
Anthracene	ND	0.19	0.018	
Fluoranthene	ND	0.19	0.054	
Pyrene	ND	0.19	0.0275	
Benzo(a)anthracene	ND	0.19	0.0493	
Chrysene	ND	0.19	0.0796	
Benzofluoranthenes	ND	0.948	0.113	
Benzo(a)pyrene	ND	0.19	0.0313	
Indeno(1,2,3-cd)pyrene	ND	0.19	0.0265	
Dibenz(a,h)anthracene	ND	0.19	0.0294	
Benzo(g,h,i)perylene	ND	0.19	0.0483	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-16
Lab ID:	123001-04
Date Received:	8/19/2004
Date Prepared:	8/20/2004
Date Analyzed:	8/20/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	62.2		34	146
2 - Fluorobiphenyl	67.3		35	143
p - Terphenyl - d14	72.1		35	166

Analyte	Result (ug/L)	RL	MDL	Flags
Naphthalene	ND	0.471	0.164	
2-Methylnaphthalene	ND	0.471	0.14	
2-Chloronaphthalene	ND	0.189	0.0452	
Acenaphthylene	ND	0.189	0.0226	
Acenaphthene	ND	0.189	0.032	
Fluorene	ND	0.189	0.016	
Phenanthrene	ND	0.189	0.0349	
Anthracene	ND	0.189	0.0179	
Fluoranthene	ND	0.189	0.0537	
Pyrene	ND	0.189	0.0273	
Benzo(a)anthracene	ND	0.189	0.049	
Chrysene	ND	0.189	0.0792	
Benzo(a)fluoranthene	ND	0.943	0.112	
Benzo(a)pyrene	ND	0.189	0.0311	
Indeno(1,2,3-cd)pyrene	ND	0.189	0.0264	
Dibenz(a,h)anthracene	ND	0.189	0.0292	
Benzo(g,h,i)perylene	ND	0.189	0.0481	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-14
Lab ID:	123001-06
Date Received:	8/19/2004
Date Prepared:	8/20/2004
Date Analyzed:	8/20/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	66.3		34	146
2 - Fluorobiphenyl	59.4		35	143
p - Terphenyl - d14	76.2		35	166

Analyte	Result (ug/L)	RL	MDL	Flags
Naphthalene	ND	0.471	0.164	
2-Methylnaphthalene	ND	0.471	0.14	
2-Chloronaphthalene	ND	0.189	0.0452	
Acenaphthylene	ND	0.189	0.0226	
Acenaphthene	ND	0.189	0.032	
Fluorene	ND	0.189	0.016	
Phenanthrene	ND	0.189	0.0349	
Anthracene	ND	0.189	0.0179	
Fluoranthene	ND	0.189	0.0537	
Pyrene	ND	0.189	0.0273	
Benzo(a)anthracene	ND	0.189	0.049	
Chrysene	ND	0.189	0.0792	
Benzofluoranthenes	ND	0.943	0.112	
Benzo(a)pyrene	ND	0.189	0.0311	
Indeno(1,2,3-cd)pyrene	ND	0.189	0.0264	
Dibenz(a,h)anthracene	ND	0.189	0.0292	
Benzo(g,h,i)perylene	ND	0.189	0.0481	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-15
Lab ID:	123001-07
Date Received:	8/19/2004
Date Prepared:	8/20/2004
Date Analyzed:	8/20/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	60.1		34	146
2 - Fluorobiphenyl	64.3		35	143
p - Terphenyl - d14	74.7		35	166

Analyte	Result (ug/L)	RL	MDL	Flags
Naphthalene	ND	0.473	0.165	
2-Methylnaphthalene	ND	0.473	0.141	
2-Chloronaphthalene	ND	0.189	0.0454	
Acenaphthylene	ND	0.189	0.0227	
Acenaphthene	ND	0.189	0.0322	
Fluorene	ND	0.189	0.0161	
Phenanthrene	ND	0.189	0.035	
Anthracene	ND	0.189	0.018	
Fluoranthene	ND	0.189	0.0539	
Pyrene	ND	0.189	0.0274	
Benzo(a)anthracene	ND	0.189	0.0492	
Chrysene	ND	0.189	0.0795	
Benzofluoranthenes	ND	0.946	0.113	
Benzo(a)pyrene	ND	0.189	0.0312	
Indeno(1,2,3-cd)pyrene	ND	0.189	0.0265	
Dibenz(a,h)anthracene	ND	0.189	0.0293	
Benzo(g,h,i)perylene	ND	0.189	0.0482	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-20
Lab ID:	123001-01
Date Received:	8/19/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	87.8		50	150
n-triacontane-d62	95.6		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	0.218	0.0946	
RRO (nC25-nC36)	0.119	0.0946	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-22
Lab ID:	123001-02
Date Received:	8/19/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	81.2		50	150
n-triacontane-d62	94.3		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	0.915	0.0944	
RRO (nC25-nC36)	0.176	0.0944	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-17
Lab ID:	123001-03
Date Received:	8/19/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	75.9		50	150
n-triacontane-d62	78.7		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	ND	0.0945	
RRO (nC25-nC36)	ND	0.0945	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-16
Lab ID:	123001-04
Date Received:	8/19/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	77.8		50	150
n-triacontane-d62	77.8		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	0.346	0.0944	
RRO (nC25-nC36)	0.107	0.0944	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-14
Lab ID:	123001-06
Date Received:	8/19/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	85.1		50	150
n-triacontane-d62	88.6		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	0.262	0.0943	
RRO (nC25-nC36)	0.105	0.0943	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-15
Lab ID:	123001-07
Date Received:	8/19/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	79.1		50	150
n-triacontane-d62	79.1		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	0.244	0.0944	
RRO (nC25-nC36)	ND	0.0944	

STL Seattle

Client Name	SLR International Corp
Client ID:	MW-24
Lab ID:	123001-05
Date Received:	8/19/04
Date Prepared:	8/23/04
Date Analyzed:	8/23/04
Dilution Factor	5

Metals by ICP-MS - USEPA Method 6020

Analyte	Result (mg/L)	RL	Flags
Lead	ND	0.0005	

STL Seattle

Lab ID:	Method Blank - VOA878
Date Received:	-
Date Prepared:	8/27/2004
Date Analyzed:	8/27/2004
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	86.7		80	120
Fluorobenzene	89.7		80	120
Toluene-D8	91.6		80	120
Ethylbenzene-d10	108		80	120
Bromofluorobenzene	99.4		80	120
Trifluorotoluene	90.2		80	120

Analyte	Result (ug/L)	RL	Flags
Benzene	ND	1	
Toluene	ND	1	
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: VOA878
Date Prepared: 8/27/2004
Date Analyzed: 8/27/2004
QC Batch ID: VOA878

Volatile Organics by USEPA Method 5035\8260B

Compound Name	Blank Result (ug/L)	Spike Amount (ug/L)	BS Result (ug/L)	BS % Rec.	BSD Result (ug/L)	BSD % Rec.	RPD	Flag
Benzene	0	5	4.3	86	4.28	85.5	-0.58	
Toluene	0	5	4.54	90.9	4.55	91	0.11	
Ethylbenzene	0	5	5.04	101	5.19	104	2.9	
m,p-Xylene	0	10	10.2	102	10.6	106	3.8	
o-Xylene	0	5	5.04	101	5.12	102	0.99	

STL Seattle

Lab ID:	Method Blank - SW0961
Date Received:	-
Date Prepared:	8/20/2004
Date Analyzed:	8/20/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	62.9		34	146
2 - Fluorobiphenyl	60		35	143
p - Terphenyl - d14	75.4		35	166

Analyte	Result (ug/L)	RL	MDL	Flags
Naphthalene	ND	0.5	0.174	
2-Methylnaphthalene	ND	0.5	0.149	
2-Chloronaphthalene	ND	0.2	0.048	
Acenaphthylene	ND	0.2	0.024	
Acenaphthene	ND	0.2	0.034	
Fluorene	ND	0.2	0.017	
Phenanthrene	ND	0.2	0.037	
Anthracene	ND	0.2	0.019	
Fluoranthene	ND	0.2	0.057	
Pyrene	ND	0.2	0.029	
Benzo(a)anthracene	ND	0.2	0.052	
Chrysene	ND	0.2	0.084	
Benzofluoranthenes	ND	1	0.119	
Benzo(a)pyrene	ND	0.2	0.033	
Indeno(1,2,3-cd)pyrene	ND	0.2	0.028	
Dibenz(a,h)anthracene	ND	0.2	0.031	
Benzo(g,h,i)perylene	ND	0.2	0.051	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: SW0961
Date Prepared: 8/20/2004
Date Analyzed: 8/20/2004
QC Batch ID: SW0961

Semivolatile Organics by USEPA Method 8270

Compound Name	Blank Result (ug/L)	Spike Amount (ug/L)	BS Result (ug/L)	BS % Rec.	BSD Result (ug/L)	BSD % Rec.	RPD	Flag
Naphthalene	0	10	8.6	86	8.16	81.6	-5.3	
2-Methylnaphthalene	0	10	8.91	89.1	9.68	96.8	8.3	
Acenaphthylene	0	10	7.73	77.3	8.43	84.3	8.7	
Acenaphthene	0	10	8.34	83.4	10.3	103	21	
Fluorene	0	10	7.12	71.2	8.01	80.1	12	
Phenanthrene	0	10	8.56	85.6	9.53	95.3	11	
Anthracene	0	10	8.64	86.4	9.33	93.3	7.7	
Fluoranthene	0	10	8.65	86.5	7.88	78.8	-9.3	
Pyrene	0	10	8.83	88.3	10.2	102	14	
Benzo(a)anthracene	0	10	9.06	90.6	8.42	84.2	-7.3	
Chrysene	0	10	9.1	91	9.39	93.9	3.1	
Benzofluoranthenes	0	20	21.7	109	18.4	92.2	-17	
Benzo(a)pyrene	0	10	10.9	109	8.69	86.9	-23	
Indeno(1,2,3-cd)pyrene	0	10	10.7	107	9.27	92.7	-14	
Dibenz(a,h)anthracene	0	10	10.7	107	9.02	90.2	-17	
Benzo(g,h,i)perylene	0	10	11.2	112	9.5	95	-16	

STL Seattle

Lab ID:	Method Blank - DW0658
Date Received:	-
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	90.2		60	120
n-triacontane-d62	98.2		60	120

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	ND	0.1	
RRO (nC25-nC36)	ND	0.1	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: DW0658
Date Prepared: 8/24/2004
Date Analyzed: 8/25/2004
QC Batch ID: DW0658

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Compound Name	Blank Result (mg/L)	Spike Amount (mg/L)	BS Result (mg/L)	BS % Rec.	BSD Result (mg/L)	BSD % Rec.	RPD	Flag
DRO (nC10-<nC25)	0	0.5	0.493	98.7	0.511	102	3.3	
RRO (nC25-nC36)	0	0.5	0.506	101	0.531	106	4.8	

STL Seattle

Lab ID:	Method Blank - TP346
Date Received:	-
Date Prepared:	8/23/04
Date Analyzed:	8/23/04
Dilution Factor	1

Metals by ICP-MS - USEPA Method 6020

Analyte	Result (mg/L)	RL	Flags
Lead	ND	0.0001	

STL Seattle

Matrix Spike Report

Client Sample ID: TANK2E
Lab ID: 123038-01
Date Prepared: 8/23/04
Date Analyzed: 8/23/04
QC Batch ID: TP346

Metals by ICP-MS - USEPA Method 6020

Parameter Name	Sample Result (mg/L)	Spike Amount (mg/L)	MS Result (mg/L)	MS % Rec.	Flag
Lead	0.0012	1	1.11	111	

STL Seattle

Duplicate Report

Client Sample ID: TANK2E
Lab ID: 123038-01
Date Prepared: 8/23/04
Date Analyzed: 8/23/04
QC Batch ID: TP346

Metals by ICP-MS - USEPA Method 6020

Parameter Name	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD %	Flag
Lead	0.0012	0.0012	0.0	

DATA QUALIFIERS AND ABBREVIATIONS

- B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be ≤ 30%.
- C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.
- M: GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D: The reported result for this analyte was calculated based on a secondary dilution factor.
- E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL: Maximum Contaminant Level
- MDL: Method Detection Limit
- RL: Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.
- X2: Contaminant does not appear to be "typical" product.
- X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5: Matrix spike recovery was not determined due to the required dilution.
- X6: Recovery and/or RPD values for matrix spike/(matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7: Recovery and/or RPD values for matrix spike/(matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- X8: Surrogate recovery was not determined due to the required dilution.
- X9: Surrogate recovery outside advisory QC limits due to matrix interference.

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

Chain of Custody Record

Project Name and Location (State)
WARDS COVE, CRAIS AK

Client: **SLR** Project Manager: **Steve Nelson** Date: **8/18/04** Chain of Custody Number: **05991**

Address: **WARDS COVE, CRAIS AK** Telephone Number (Area Code)/Fax Number: **660.218.6445** Lab Number: **23001** Page: **1** of **1**

City: **WARDS COVE, CRAIS AK** State: **AK** Zip Code: **99581** Lab Contact: **Steve Nelson** Carrier/Waybill Number: **AK 102 (K2)**

Special Instructions/Conditions of Receipt: **Lot of 2 coolers 802L must be 8260 OK**

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach list if more space is needed)	Special Instructions/Conditions of Receipt		
			Air	Aqueous	Sed.	Soil	GC	Unpres.	H2SO4	HNO3	HCl	NaOH			ZnAc/NaOH	
MW-20	8/18/04	1554	X								X				AK 102 (K2)	
MW-22		1518													AK 103 (K2)	
MW-17		1415													AK 103 (K2)	
MW-16		1351													AK 103 (K2)	
MW-24		958													AK 103 (K2)	
MW-14		1046													AK 103 (K2)	
MW-15		1145													AK 103 (K2)	

QC Requirements (Specify):

1. Relinquished By: **Dumbell Boyce** Date: **8/18/04** Time: **1618**

2. Relinquished By: **Knobley** Date: **8/18/04** Time: **2332**

3. Relinquished By: _____ Date: _____ Time: _____

Sample Disposal: Disposal By Lab Return To Client Archive For _____ Months

Possible Hazard Identification: Non-Hazard Flammable Poison B Unknown Skin Irritant Other: **STD**

Turn Around Time Required (business days): 24 Hours 48 Hours 5 Days 10 Days 15 Days

Cooler: Yes No Cooler Temp: _____

Comments:



STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: August 31, 2004

TO: Steve Nelson
SLR International Corp
22122 20th Avenue SE, Bldg H, Ste 150
Bothell, WA 98021

PROJECT: Wards Cove Craig Ak

REPORT NUMBER: 123026

TOTAL NUMBER OF PAGES: _____

Enclosed are the test results for six samples received at STL Seattle on August 20, 2004.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

for Darla Powell
Project Manager

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STL Seattle

Sample Identification:

<u>Lab. No.</u>	<u>Client ID</u>	<u>Date/Time Sampled</u>	<u>Matrix</u>
123026-1	MW-5	08-19-04 10:36	Liquid
123026-2	MW-13	08-19-04 09:27	Liquid
123026-3	MW-6	08-19-04 07:09	Liquid
123026-4	MW-21	08-19-04 09:45	Liquid
123026-5	MW-23	08-19-04 11:53	Liquid
123026-6	MW-18	08-19-04 10:45	Liquid

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STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-5
Lab ID:	123026-01
Date Received:	8/20/2004
Date Prepared:	8/26/2004
Date Analyzed:	8/26/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	116		34	146
2 - Fluorobiphenyl	112		35	143
p - Terphenyl - d14	113		35	166

Analyte	Result (ug/L)	RL	Flags
Naphthalene	ND	0.491	
2-Methylnaphthalene	ND	0.491	
Acenaphthylene	ND	0.196	
Acenaphthene	ND	0.196	
Fluorene	ND	0.196	
Phenanthrene	ND	0.196	
Anthracene	ND	0.196	
Fluoranthene	ND	0.196	
Pyrene	ND	0.196	
Benzo(a)anthracene	ND	0.196	
Chrysene	ND	0.196	
Benzo(a)fluoranthene	ND	0.982	
Benzo(a)pyrene	ND	0.196	
Indeno(1,2,3-cd)pyrene	ND	0.196	
Dibenz(a,h)anthracene	ND	0.196	
Benzo(g,h,i)perylene	ND	0.196	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-13
Lab ID:	123026-02
Date Received:	8/20/2004
Date Prepared:	8/26/2004
Date Analyzed:	8/26/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	116		34	146
2 - Fluorobiphenyl	112		35	143
p - Terphenyl - d14	150		35	166

Analyte	Result (ug/L)	RL	Flags
Naphthalene	ND	0.474	
2-Methylnaphthalene	ND	0.474	
Acenaphthylene	ND	0.19	
Acenaphthene	ND	0.19	
Fluorene	ND	0.19	
Phenanthrene	ND	0.19	
Anthracene	0.219	0.19	
Fluoranthene	0.78	0.19	
Pyrene	1.02	0.19	
Benzo(a)anthracene	ND	0.19	
Chrysene	0.72	0.19	
Benzofluoranthenes	ND	0.948	
Benzo(a)pyrene	ND	0.19	
Indeno(1,2,3-cd)pyrene	ND	0.19	
Dibenz(a,h)anthracene	ND	0.19	
Benzo(g,h,i)perylene	ND	0.19	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-6
Lab ID:	123026-03
Date Received:	8/20/2004
Date Prepared:	8/26/2004
Date Analyzed:	8/26/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	111		34	146
2 - Fluorobiphenyl	98.1		35	143
p - Terphenyl - d14	138		35	166

Analyte	Result (ug/L)	RL	Flags
Naphthalene	ND	0.475	
2-Methylnaphthalene	ND	0.475	
Acenaphthylene	ND	0.19	
Acenaphthene	ND	0.19	
Fluorene	ND	0.19	
Phenanthrene	ND	0.19	
Anthracene	ND	0.19	
Fluoranthene	ND	0.19	
Pyrene	ND	0.19	
Benzo(a)anthracene	ND	0.19	
Chrysene	ND	0.19	
Benzofluoranthenes	ND	0.95	
Benzo(a)pyrene	ND	0.19	
Indeno(1,2,3-cd)pyrene	ND	0.19	
Dibenz(a,h)anthracene	ND	0.19	
Benzo(g,h,i)perylene	ND	0.19	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-21
Lab ID:	123026-04
Date Received:	8/20/2004
Date Prepared:	8/26/2004
Date Analyzed:	8/26/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	123		34	146
2 - Fluorobiphenyl	113		35	143
p - Terphenyl - d14	117		35	166

Analyte	Result (ug/L)	RL	Flags
Naphthalene	ND	0.472	
2-Methylnaphthalene	ND	0.472	
Acenaphthylene	ND	0.189	
Acenaphthene	ND	0.189	
Fluorene	ND	0.189	
Pentachlorophenol	ND	1.89	
Phenanthrene	ND	0.189	
Fluoranthene	ND	0.189	
Pyrene	ND	0.189	
Benzo(a)anthracene	ND	0.189	
Chrysene	ND	0.189	
Benzofluoranthenes	ND	0.943	
Benzo(a)pyrene	ND	0.189	
Indeno(1,2,3-cd)pyrene	ND	0.189	
Dibenz(a,h)anthracene	ND	0.189	
Benzo(g,h,i)perylene	ND	0.189	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-18
Lab ID:	123026-06
Date Received:	8/20/2004
Date Prepared:	8/26/2004
Date Analyzed:	8/26/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	113		34	146
2 - Fluorobiphenyl	123		35	143
p - Terphenyl - d14	143		35	166

Analyte	Result (ug/L)	RL	Flags
Naphthalene	ND	0.472	
2-Methylnaphthalene	ND	0.472	
Acenaphthylene	ND	0.189	
Acenaphthene	ND	0.189	
Fluorene	ND	0.189	
Phenanthrene	ND	0.189	
Anthracene	ND	0.189	
Fluoranthene	ND	0.189	
Pyrene	ND	0.189	
Benzo(a)anthracene	ND	0.189	
Chrysene	ND	0.189	
Benzo(a)fluoranthene	ND	0.944	
Benzo(a)pyrene	ND	0.189	
Indeno(1,2,3-cd)pyrene	ND	0.189	
Dibenz(a,h)anthracene	ND	0.189	
Benzo(g,h,i)perylene	ND	0.189	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-5
Lab ID:	123026-01
Date Received:	8/20/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	81.8		50	150
n-triacontane-d62	91.8		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	0.349	0.0943	
RRO (nC25-nC36)	0.176	0.0943	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-13
Lab ID:	123026-02
Date Received:	8/20/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	85.9		50	150
n-triacontane-d62	98.8		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	0.517	0.0944	
RRO (nC25-nC36)	0.298	0.0944	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-6
Lab ID:	123026-03
Date Received:	8/20/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	76.4		50	150
n-triacontane-d62	85.2		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	0.486	0.0944	
RRO (nC25-nC36)	0.187	0.0944	

STL Seattle

Client Name:	SLR International Corp
Client ID:	MW-21
Lab ID:	123026-04
Date Received:	8/20/2004
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	85.2		50	150
n-triacontane-d62	98.4		50	150

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	ND	0.0945	
RRO (nC25-nC36)	ND	0.0945	

STL Seattle

Client Name	SLR International Corp
Client ID:	MW-13
Lab ID:	123026-02
Date Received:	8/20/04
Date Prepared:	8/26/04
Date Analyzed:	8/26/04
Dilution Factor	5

Metals by ICP-MS - USEPA Method 6020

Analyte	Result (mg/L)	RL	Flags
Lead	0.00196	0.001	

STL Seattle

Client Name	SLR International Corp
Client ID:	MW-6
Lab ID:	123026-03
Date Received:	8/20/04
Date Prepared:	8/26/04
Date Analyzed:	8/26/04
Dilution Factor	5

Metals by ICP-MS - USEPA Method 6020

Analyte	Result (mg/L)	RL	Flags
Lead	ND	0.001	

STL Seattle

Client Name	SLR International Corp
Client ID:	MW-21
Lab ID:	123026-04
Date Received:	8/20/04
Date Prepared:	8/26/04
Date Analyzed:	8/26/04
Dilution Factor	5

Metals by ICP-MS - USEPA Method 6020

Analyte	Result (mg/L)	RL	Flags
Lead	ND	0.001	

STL Seattle

Client Name	SLR International Corp
Client ID:	MW-23
Lab ID:	123026-05
Date Received:	8/20/04
Date Prepared:	8/26/04
Date Analyzed:	8/26/04
Dilution Factor	5

Metals by ICP-MS - USEPA Method 6020

Analyte	Result (mg/L)	RL	Flags
Lead	0.00261	0.001	

STL Seattle

Lab ID:	Method Blank - SW0966
Date Received:	-
Date Prepared:	8/26/2004
Date Analyzed:	8/26/2004
% Solids	-
Dilution Factor	1

Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	113		34	146
2 - Fluorobiphenyl	106		35	143
p - Terphenyl - d14	99.7		35	166

Analyte	Result (ug/L)	RL	Flags
Naphthalene	ND	0.5	
2-Methylnaphthalene	ND	0.5	
Acenaphthylene	ND	0.2	
Acenaphthene	ND	0.2	
Fluorene	ND	0.2	
Phenanthrene	ND	0.2	
Anthracene	ND	0.2	
Fluoranthene	ND	0.2	
Pyrene	ND	0.2	
Benzo(a)anthracene	ND	0.2	
Chrysene	ND	0.2	
Benzofluoranthenes	ND	1	
Benzo(a)pyrene	ND	0.2	
Indeno(1,2,3-cd)pyrene	ND	0.2	
Dibenz(a,h)anthracene	ND	0.2	
Benzo(g,h,i)perylene	ND	0.2	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: SW0966
Date Prepared: 8/26/2004
Date Analyzed: 8/26/2004
QC Batch ID: SW0966

Semivolatile Organics by USEPA Method 8270

Compound Name	Blank Result (ug/L)	Spike Amount (ug/L)	BS Result (ug/L)	BS % Rec.	BSD Result (ug/L)	BSD % Rec.	RPD	Flag
Naphthalene	0	20	13.8	69.2	14.8	73.8	6.4	
2-Methylnaphthalene	0	30	13.4	44.6	15	49.9	11	
Acenaphthylene	0	20	15.2	75.8	15.4	76.9	1.4	
Acenaphthene	0	40	30.4	75.9	28.5	71.4	-6.1	
Fluorene	0	20	12.3	61.3	13.8	69.1	12	
Phenanthrene	0	20	15.2	75.9	16.1	80.6	6	
Anthracene	0	20	14	70.2	16.2	80.9	14	
Fluoranthene	0	20	13	64.9	13.8	69.2	6.4	
Pyrene	0	40	29.4	73.4	30.6	76.5	4.1	
Benzo(a)anthracene	0	20	13.3	66.7	15.8	79.2	17	
Chrysene	0	20	13.4	67	15.8	78.9	16	
Benzofluoranthenes	0	40	29.9	74.6	30.9	77.2	3.4	
Benzo(a)pyrene	0	20	14.9	74.5	15.9	79.6	6.6	
Indeno(1,2,3-cd)pyrene	0	20	19.4	97	20.8	104	7	
Dibenz(a,h)anthracene	0	20	18.2	91.2	19	95.1	4.2	
Benzo(g,h,i)perylene	0	20	17.8	89.2	19.2	96	7.3	

STL Seattle

Lab ID:	Method Blank - DW0658
Date Received:	-
Date Prepared:	8/24/2004
Date Analyzed:	8/25/2004
% Solids	-
Dilution Factor	1

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	90.2		60	120
n-triacontane-d62	98.2		60	120

Analyte	Result (mg/L)	RL	Flags
DRO (nC10-<nC25)	ND	0.1	
RRO (nC25-nC36)	ND	0.1	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: DW0658
Date Prepared: 8/24/2004
Date Analyzed: 8/25/2004
QC Batch ID: DW0658

Method AK 102/103 For Determination of Diesel and Residual Range Organics

Compound Name	Blank Result (mg/L)	Spike Amount (mg/L)	BS Result (mg/L)	BS % Rec.	BSD Result (mg/L)	BSD % Rec.	RPD	Flag
DRO (nC10-<nC25)	0	0.5	0.493	98.7	0.511	102	3.3	
RRO (nC25-nC36)	0	0.5	0.506	101	0.531	106	4.8	

STL Seattle

Lab ID:	Method Blank - TP369
Date Received:	-
Date Prepared:	8/26/04
Date Analyzed:	8/26/04
Dilution Factor:	1

Metals by ICP-MS - USEPA Method 6020

Analyte	Result (mg/L)	RL	Flags
Lead	ND	0.0002	

STL Seattle

Matrix Spike Report

Client Sample ID: MW-13
Lab ID: 123026-02
Date Prepared: 8/26/04
Date Analyzed: 8/26/04
QC Batch ID: TP369

Metals by ICP-MS - USEPA Method 6020

Parameter Name	Sample Result (mg/L)	Spike Amount (mg/L)	MS Result (mg/L)	MS % Rec.	Flag
Lead	0.002	1	1.03	102	

STL Seattle

Duplicate Report

Client Sample ID: MW-13
Lab ID: 123026-02
Date Prepared: 8/26/04
Date Analyzed: 8/26/04
QC Batch ID: TP369

Metals by ICP-MS - USEPA Method 6020

Parameter Name	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD %	Flag
Lead	0.002	0.0019	5.1	

DATA QUALIFIERS AND ABBREVIATIONS

- B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be ≤ 30%.
- C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.
- M: GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D: The reported result for this analyte was calculated based on a secondary dilution factor.
- E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL: Maximum Contaminant Level
- MDL: Method Detection Limit
- RL: Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.
- X2: Contaminant does not appear to be "typical" product.
- X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5: Matrix spike recovery was not determined due to the required dilution.
- X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- X8: Surrogate recovery was not determined due to the required dilution.
- X9: Surrogate recovery outside advisory QC limits due to matrix interference.

