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MONITORING WELL INSTALLATION REPORT FOR

OLSON URBAN HOUSING, LLC

Former Impulse Motors 1210 Bockman Road San Lorenzo, CA

November 30, 2007 Project Number 040T.29215.69

Prepared by:

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GEOLOGIS,



ENVIRONMENTAL HEALTH SERVICES

November 30, 2007

Steven Plunkett
Department of Environmental Protection
Environmental Protection Division
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Mr. Matt Weber Olson Urban Housing, LLC 3130 Crow Canyon Place, Suite 210 San Ramon, California 94583

Mr. Nick Garcia Olson Urban Housing, LLC 3130 Crow Canyon Place, Suite 210 San Ramon, California 94583

RE: MONITORING WELL INSTALLATION REPORT

1245 – 1415 Bockman Road San Lorenzo, California (the "Site")

Dear Mr. Plunkett,

At the request and authorization of Olson Urban Housing, LLC (Olson), SECOR International Incorporated (SECOR) has prepared this report detailing the installation, development, and sampling of three groundwater monitoring wells and one temporary groundwater monitoring well at the above referenced Site. The completed assessment was conducted in general accordance with SECOR's *Workplan for Monitoring Well Installation*, dated October 2, 2007 and subsequent approval letter from the Alameda County Health Care Services Agency (ACHCSA), dated October 12, 2007. In addition, the work was completed in accordance with the terms contained in the Master Consulting Services Agreement (MCSA) with the Olson Company dated November 28, 2001. Notification and approval of proposed field activities was made to the ACHCSA, prior to the implementation of field work. The results of the completed work are summarized in the following Executive Summary, and described in greater detail in the attached report.

EXECUTIVE SUMMARY

Previous environmental assessment and remedial activities completed by SECOR and others (SECOR, 2004, 2006, 2007; ACC, 2004) at the Site, suggested that very limited soil and groundwater impact exists in the area immediately down-gradient of the former fuel dispenser islands after removal of impacted soil was completed in 2006. Therefore, the ACHCSA requested that an additional assessment be completed to confirm this assumption by characterizing the lateral extent of the impacted soil and groundwater down-gradient of the former fuel dispensers. The following report outlines the investigation.

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Between November 7 and November 9, 2007, under the oversight of the ACHCSA, SECOR supervised the installation of three (3) groundwater monitoring wells and one (1) temporary groundwater well located down-gradient of the two former fuel dispensers. Soil samples were collected from the borings at five foot intervals from five feet below ground surface (bgs) to the total depth of each boring (20 feet bgs). Representative soil samples were analyzed for gasoline and diesel range hydrocarbons (TPHg and TPHd); Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX); fuel oxygenates; Dibromoethane (EDB), dichloroethane (EDC). Results received from the completed analyses are discussed below.

Groundwater monitoring wells were installed in locations MW-01, MW-02 and MW-03 according to the guidelines established by the Alameda County Public Works Agency. Locations selected and approved by the ACHCSA are indicated on Figure 2 attached. Boring logs attached provide a detailed description of the screened interval for each well. Due to interferences with utility line construction a permanent monitoring well could not be constructed at location MW-04 or anywhere in close proximity to that location. SECOR therefore installed a temporary well from which a groundwater sample was collected for analysis. Construction and sampling methods are discussed below for this well.

Laboratory results from each of the sampled wells are provided on the attached tables 1 through 4 and included in appendix B and discussed below:

MW-01

Soil samples collected from MW-01 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons. Acetone, ethylbenzene, toluene, and xylenes were detected at concentrations of 0.083, 0.002, 0.001, and 0.011 mg/kg, respectively. These concentrations fall well below the USEPA Preliminary Remediation Goals (PRGs) of residential soil for acetone, ethylbenzene, toluene, and xylenes which are set at 1600, 8.9, 5200, and 2700 mg/kg, respectively.

Groundwater collected from MW-01 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as all VOCs.

MW-02

Soil collected from MW-02 exhibited a gasoline range hydrocarbon concentration of 2.0 mg/kg. Additionally, concentrations of n-Butylbenzene, sec-Butylbenzene, Isopropylbenzene, and n-Propylbenzene were detected in MW-02-20 at 0.015, 0.010, 0.004, and 0.016 mg/kg, respectively. These concentrations fall well below the USEPA PRGs of residential soil for n-Butylbenzene, sec-Butylbenzene, isopropylbenzene (Cumene), and n-Propylbenzene which are set at 240, 220, 520, and 240 mg/kg, respectively.

Groundwater collected from MW-02 exhibited a gasoline range hydrocarbon concentration of 0.71 $\mu g/L$. Additionally, concentrations of n-Butylbenzene, sec-Butylbenzene, Isopropylbenzene, n-Propylbenzene, and Naphthalene were detected in MW-02 at 13, 10, 6.7, 21, and 0.8 $\mu g/L$, respectively. State and Federal Maximum Contaminant Levels have not been established for these constituents, but the detected concentrations are exceedingly low.

MW-03

Soil collected from MW-03 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as most VOCs. Toluene was exhibited concentrations of 0.002 and 0.001 mg/kg, respectively. The USEPA PRG for Toluene is set at 5200 mg/kg.

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Groundwater collected from MW-03 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as all VOCs.

MW-04

Soil collected from MW-04 exhibited concentrations of gasoline range hydrocarbons of 6.1 and 2.9 mg/kg respectively. Additionally, concentrations of acetone (0.27-0.40 mg/kg), n-Butylbenzene (0.006-0.002 mg/kg), sec-Butylbenzene (0.011-0.003 mg/kg), 1,3,5 Trimethylbenzene (0.002-0.001 mg/kg), 1,2,4 Trimethylbenzene (0.003-0.002 mg/kg), isopropylbenzene (0.003-0.001 mg/kg), n-propylbenzene (0.005-0.002 mg/kg), ethylbenzene (0.041-0.026 mg/kg), Toluene (0.021-0.013 mg/kg), and Total Xylenes (0.18-0.116 mg/kg) were detected. These concentrations fall well below the US EPA PRGs of residential soils for acetone (1600 mg/kg), n-Butylbenzene (240 mg/kg), sec-Butylbenzene (220 mg/kg), 1,3,5 Trimethylbenzene (21 mg/kg), 1,2,4 Trimethylbenzene (52 mg/kg), isopropylbenzene (520 mg/kg), n-propylbenzene (240 mg/kg), ethylbenzene (8.9 mg/kg), Toluene (5200 mg/kg), and Total Xylenes (2700 mg/kg).

Groundwater collected from MW-04 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as all VOCs.

Conclusion

The well locations selected essentially evaluated the limits of soil and groundwater impact associated with the detected and mitigated release from the former dispenser islands. Results of soil and groundwater sampling and analysis of samples collected from down-gradient of the former fuel dispensers were non-detect for contaminant concentrations or showed contaminant levels below regulatory screening levels. Given this information, SECOR's concludes that the remaining impacted soil and groundwater is localized to the area immediately down gradient of the former dispenser islands and currently beneath the proposed parking and driveway areas of the Site development currently under construction as indicated on figure 2. As a result, SECOR considers the limits of the impacted groundwater adequately assessed. Based on the extremely low extent of impact and the already-completed source removal along with the overlying land use (driveway and parking) SECOR concludes that conditions at the Site represent neither a recognized environmental condition nor a human health concern in light of the intended residential and commercial development of the Site. Consequently, SECOR recommends no further action or investigation regarding the Site.

CLOSURE

It has been a pleasure to provide environmental consulting services for you on this project and we look forward to working with you in the future. Should there be any questions regarding the information provided within the accompanying report, please do not hesitate to contact the undersigned at (909) 335-6116.

Respectfully submitted,

SECOR International Incorporated

Jason Adelaars

cc: Mr. Walt Caughlin, The Olson Company

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Appendix B - Laboratory Data Sheets and QA/QC Results

1.0 INTRODUCTION

This report documents the methodology and results of the installation and sampling of three (3) groundwater monitoring wells and one temporary groundwater monitoring well completed by SECOR International Incorporated (SECOR) at the former Impulse Motors, located at 1210 Bockman Road, San Lorenzo, California (the "Site")

The completed work was conducted in general accordance with SECOR's approved *Workplan for Monitoring Well Installation*, dated October 2, 2007 and in accordance with the terms provided in the Olson Company's Master Consulting Services Agreement dated November 28, 2001. The scope of work and the results of the investigation are described in subsequent sections. The following subsections provide the site description and a summary of past operations as well as a description of site geology.

Prior to initiation of remedial actions at the Site, notification was made to Mr. Steven Plunkett of Alameda County Health Care Services Agency (ACHCA) who is providing regulatory oversight. Mr. Plunkett visited the Site to observe installation activities at the Site on November 7, 2007.

1.1 SITE DESCRIPTION AND OPERATIONS

The Site is located on the south side of Bockman Road between Via Chiquita and Via Del Ray in San Lorenzo, California. The approximately three acres of property on the Site is addressed as 1210 through 1366 Bockman Road.

The Site is currently undergoing development with residential condominiums. The Site was formerly the location of the former Impulse Motors which provided automobile repair and fuel services. The facility has, subsequently been demolished in preparation of redevelopment of the Site for planned residential and commercial purposes.

1.2 SITE GEOLOGY AND HYDROGEOLOGY

The Site is located in an area of recent alluvial fan deposits of Quaternary age. These deposits typically consist of tideland and floodplain deposits. Regionally, the Site and surrounding area is located northeast of the San Francisco Bay, the Santa Cruz Mountains, and the Pacific Ocean. The nearest active faults include the Hayward Fault and the San Andreas Fault (Peninsula) Zones, located approximately 2.5 miles northeast and 16 miles southwest, respectively, and the Calaveras Fault, located approximately 10 miles to the northeast.

The elevation of the Site is approximately 22 feet above mean sea level. The surface topography of the site has a minor slope toward the west-southwest at less than one percent. The surface runoff generally flows toward the San Francisco Bay, located approximately ½ mile southwest of the Site.

Based on the recent assessment reported herein, groundwater was encountered at a depths of approximately 7.5 to 10 feet below ground surface (bgs). The general groundwater flow direction is towards the west, in the direction of the San Francisco Bay. According to the EDR report, the Site is located within ¼ mile of a 500 year flood zone.

2.0 BACKGROUND INFORMATION

Several subsurface investigations and a remedial excavation have been completed at the Site by SECOR and others (SECOR, 2005a,b; ACC, 2004). A detailed summary of this historic work was provided in the May 18, 2007 Soil, Vapor, and Groundwater Investigation, prepared by SECOR. Relevant assessment data obtained from those investigations is discussed below.

On December 16-17, 2004, SECOR completed a Phase II ESA at the Site that included advancing eight (8) borings at select locations throughout the Site. The results of SECOR's Phase II investigation indicated that contamination was not significant in the vicinity of the former USTs located at 1210 Bockman Road (see Figure 2). However impact was present in the soil in the vicinity of the former dispenser islands.

Based on the results of the completed investigation, SECOR concluded that petroleum impact was limited to shallow soils in the vicinity of the former fuel dispenser islands. As a result, SECOR completed two separate excavations in the area of the two former dispenser islands. The excavations resulted in the removal of approximately 500 cubic yards of impacted and non- to impacted soil in the vicinity of the former fuel dispenser islands. The excavation verification amples collected from the sidewalls of both of the excavations indicated all detected impact was removed to the depth of the groundwater table, which was encountered at a depth of approximately 10 feet. Due to the presence of groundwater, further excavation was not possible to depths greater than 10 feet.

Soil samples collected from the base of the excavation at the groundwater surface indicated low concentrations of impact in soil, at concentrations below regulatory thresholds. As a result of the detections, it was requested by the ACHCS that groundwater samples be collected to determine if the impact had affected groundwater and the lateral dimensions of that impact.

In April of 2007, SECOR continued the assessment of soil and groundwater impact associated with the former USTs and dispenser islands. That assessment identified no impacts to groundwater directly down gradient from the former USTs. The assessment did, however, detect impact to groundwater down gradient from the former dispenser islands. The assessment did not define the limits of impact to groundwater from the dispenser islands, although the limits appeared to be very localized (less than 50 feet from the dispenser islands). Based on the lack of definition of the groundwater impact, the ACHCS has requested that additional groundwater assessment be completed to evaluate the limits of impact, prior to granting regulatory closure for the Site.

The additional assessment requested by the ACHCSA was conducted in general accordance with SECOR's *Workplan for Monitoring Well Installation*, dated October 2, 2007. This work plan was approved by ACHCSA on October 12, 2007. The following text described the completed assessment.

3.0 FIELD INVESTIGATION PROGRAM

3.1 SCOPE-OF-WORK

The scope of work consisted of the following general elements:

- Obtaining monitoring well installation permits from the Alameda County Public Works Agency;
- Preparation of a Site specific health and safety plan;
- Notification of underground service alert (USA);
- Use of a D-32 Hollow Stem Drilling Rig.
 - o Installation of 3 groundwater monitoring wells.
 - Installation & removal of 1 temporary groundwater monitoring well.
- Collection of soil and groundwater samples from the boring locations in accordance with the sampling plan required by the ACHCSA for potential chemical analysis;
- Analysis of collected soil samples at a State of California Laboratory for the presence of diesel and gasoline range organics (TPHg and TPHd, respectively) following modified EPA test method 8015B; benzene, toluene, ethylbenzene and total xylenes (collectively BTEX) and the fuel oxygenates following EPA test method 8260B;
- Preparation and submittal of this report documenting the findings and results of the investigation.

3.2 SOIL SAMPLING

Each of the boring locations, identified as MW-01 through MW-04, were advanced using the direct push attachment on the D-32 hollow stem drill rig. During advancement of each, soil was collected starting at the surface using a 48-inch long by 2-inch inner diameter stainless steel sampler. At each sampling interval, the sampler was driven into undisturbed soil using a hydraulic ram on the hollow stem rig until 48 inches of penetration is achieved. Upon advancement of the sampler to the full 48-inch length, the steel rods were extracted from the boring and the plastic sampler sleeve is removed. The drilling and sampling sequence is then repeated at various intervals for the entire depth of each boring.

Upon extracting the sampler at each depth interval, the soils contained therein were visually examined by SECOR field personnel who classified the soils in accordance with the unified soil classification system (USCS). A photo-ionization detector (PID) was used to monitor the soils collected for volatile organic compound (VOC) vapors. Soil was removed from the plastic sampler and placed in a zip-lock type baggie and the PID probe was inserted into the baggie to monitor the headspace for VOC vapors.

After classification and VOC vapor evaluation, the soil samples from the larger sampling sleeve were cut into smaller plastic tubes. After the tubes were sealed, they were labeled with the appropriate identification information (boring number, sample depth, sample collection date, and sample collection time). The samples were logged on a chain-of-custody form and placed in an ice-filled cooler for transport to the laboratory.

Each borehole was abandoned by extending a tremmie pipe to the bottom of each borehole and pumping grout through. The boreholes were filled with grout up to ground surface.

3.3 WELL INSTALLATION

Adjacent to the direct push boreholes MW-01, MW-02, and MW-03 used for soil sampling, SECOR advanced a 10-inch diameter borehole to depths of approximately 6 feet below static groundwater and completed as groundwater monitoring wells. During the soil investigation, static groundwater depths ranged from approximately 7.5 to 10 feet bgs. Well materials consisted of 0.010 slot, four-inch-diameter polyvinyl chloride (PVC) well screen installed from approximately 5 feet below and 2 feet above the static groundwater depth and blank PVC casing installed to within 2-feet of the surface grade. Monterey sand (#3) filter pack was placed in the annular space of the boring to approximately 0.5-foot above the well screen level followed by 0.5-feet of hydrated bentonite chips. Cement grout was placed in the remainder of the annular space to within 3-feet of the surface grade. Due to future surface grading activities, the wells were installed 2-feet below ground surface to avoid damage. A metallic well box, gravel, and soil was placed over the well casing and compacted to protect the well casing and minimize movement. The locations of the wells were surveyed prior to completion of field activities.

The location of proposed monitoring well MW-04 was in conflict with future trenching and utilities installation. As a result, a temporary well was installed following the same procedures as presented above. The difference was at this location the well was immediately purged, sampled, and removed prior to completion of field activities. Following installation approximately 25 gallons of groundwater was purged from MW-04 at which point the well went dry. Once the well had recharged, groundwater was collected in glass sampling containers and labeled with proper identification. The well casing was then removed and the borehole was backfilled with cement grout. The well locations are shown on Figures 2, and well construction details are shown on boring logs included in Appendix B.

3.4 WELL DEVELOPMENT AND GROUNDWATER SAMPLING

Following the installation of wells MW-01, MW-02, and MW-03 a 48-hours expired prior to well developed and groundwater sampling. The groundwater wells were gauged for static water levels prior to purging and sampling. Water within the well casing was surged with a two-inch-diameter PVC surge block, and water within the casing removed with a bailer, to develop the well. Approximately 30-35 gallons of water was removed from each well in order to obtain a discrete groundwater sample from the groundwater surface after recharge had occurred with a dedicated bailer. Well Field Data Sheets for each monitoring well are provided in Appendix A.

4.0 LABORATORY TESTING PROGRAM

Eight (8) soil samples and four (4) groundwater samples collected from borings MW-01 through MW-04 were delivered under chain-of-custody (Appendix A) to Centrum Analytical Laboratories, Inc. (Centrum) located in Riverside, California. Centrum is certified to perform hazardous waste testing by the State of California Department of Health Services, Environmental Laboratory Accreditation Program.

Selected soil and groundwater samples were analyzed for gasoline and diesel range petroleum hydrocarbons by modified EPA Test method 8015b; and BTEX and fuel oxygenates (BTEX, EDB, EDC, MtBE, TAME, ETBE, DIPE, and TBA) by EPA Test method 8260B. Analytical results are tabulated on Tables 1-4. Analytical laboratory test results are included in Appendix B and discussed in Section 5.0.

5.0 INVESTIGATION RESULTS

5.1 FIELD OBSERVATIONS

Soils encountered during the remedial effort consisted of clay and silty clay mixtures to the maximum explored depth of approximately 20 feet bgs. Groundwater was encountered at depths ranging from 17-18 feet bgs. Static groundwater level was measured from 5.5 to 8.3 feet bgs.

In general, native soils had a dark black color and petroleum impacted soils were stained dark greenish gray in color. Measurements of VOCs utilizing a PID calibrated to 100 ppmV Isobutylene reported VOC concentrations ranging from <1 to 22.3 ppmV.

5.2 ANALYTICAL RESULTS

The laboratory test results are discussed below. Laboratory test results for primary COPCs are summarized in attached Tables 1 through 4 and the complete laboratory analytical test results are presented on the laboratory data sheets attached as Appendix A.

MW-01

Soil samples collected from depths of 18 and 20 feet bgs exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons. Acetone, ethylbenzene, and xylenes were detected in the 20 foot sample at concentrations of 0.083, 0.002, and 0.011 mg/kg, respectively. Toluene was detected in the 18 foot sample at a concentration of 0.001 mg/kg.

Groundwater collected from MW-01 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as all VOCs.

MW-02

Soil collected from a depth of 17 feet in MW-02 exhibited non-detectable concentrations of diesel and gasoline range hydrocarbons, as well as all VOCs. Soil collected from a depth of 20-feet in MW-02 exhibited a gasoline range hydrocarbon concentration of 2.0 mg/kg. Additionally, concentrations of n-Butylbenzene, sec-Butylbenzene, Isopropylbenzene, and n-Propylbenzene were detected in MW-02-20 at 0.015, 0.010, 0.004, and 0.016 mg/kg, respectively.

Groundwater collected from MW-02 exhibited a gasoline range hydrocarbon concentration of 0.71 μ g/L. Additionally, concentrations of n-Butylbenzene, sec-Butylbenzene, Isopropylbenzene, n-Propylbenzene, and Naphthalene were detected in MW-02 at 13, 10, 6.7, 21, and 0.8 μ g/L, respectively.

MW-03

Soil collected from depths of 13 and 20 feet bgs exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as most VOCs. Toluene was exhibited in the 13 and 20 foot samples at concentrations of 0.002 and 0.001 mg/kg, respectively.

Groundwater collected from MW-03 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as all VOCs.

MW-04

Soil collected depths of 13 and 20 feet bgs exhibited concentrations of gasoline range hydrocarbons of 6.1 and 2.9 mg/kg respectively. Additionally, concentrations of acetone (0.27-0.40 mg/kg), n-Butylbenzene (0.006-0.002 mg/kg), sec-Butylbenzene (0.011-0.003 mg/kg), 1,3,5

Trimethylbenzene (0.002-0.001 mg/kg), 1,2,4 Trimethylbenzene (0.003-0.002 mg/kg), isopropylbenzene (0.003-0.001 mg/kg), n-propylbenzene (0.005-0.002 mg/kg), ethylbenzene (0.041-0.026 mg/kg), Toluene (0.021-0.013 mg/kg), and Total Xylenes (0.18-0.116 mg/kg) were detected.

Groundwater collected from MW-04 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as all VOCs.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Previous environmental assessment and remedial activities completed by SECOR and others (SECOR, 2004, 2006, 2007; ACC, 2004) at the Site, suggested that very limited soil and groundwater impact exists in the area immediately down-gradient of the former fuel dispenser islands after removal of impacted soil was completed in 2006. Therefore, the ACHCSA requested that an additional assessment be completed to confirm this assumption by characterizing the lateral extent of the impacted soil and groundwater down-gradient of the former fuel dispensers. The following report outlines the investigation.

Between November 7 and November 9, 2007, under the oversight of the ACHCSA, SECOR supervised the installation of three (3) groundwater monitoring wells and one (1) temporary groundwater well located down-gradient of the two former fuel dispensers. Soil samples were collected from the borings at five foot intervals from five feet below ground surface (bgs) to the total depth of each boring (20 feet bgs). Representative soil samples were analyzed for gasoline and diesel range hydrocarbons (TPHg and TPHd); Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX); fuel oxygenates; Dibromoethane (EDB), dichloroethane (EDC). Results received from the completed analyses are discussed below.

Groundwater monitoring wells were installed in locations MW-01, MW-02 and MW-03 according to the guidelines established by the Alameda County Public Works Agency. Locations selected and approved by the ACHCSA are indicated on Figure 2 attached. Boring logs attached provide a detailed description of the screened interval for each well. Due to interferences with utility line construction a permanent monitoring well could not be constructed at location MW-04 or anywhere in close proximity to that location. SECOR therefore installed a temporary well from which a groundwater sample was collected for analysis. Construction and sampling methods are discussed below for this well.

Laboratory results from each of the sampled wells are provided on the attached tables 1 through 4 and included in appendix B and discussed below:

MW-01

Soil samples collected from MW-01 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons. Acetone, ethylbenzene, toluene, and xylenes were detected at concentrations of 0.083, 0.002, 0.001, and 0.011 mg/kg, respectively. These concentrations fall well below the USEPA Preliminary Remediation Goals (PRGs) of residential soil for acetone, ethylbenzene, toluene, and xylenes which are set at 1600, 8.9, 5200, and 2700 mg/kg, respectively.

Groundwater collected from MW-01 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as all VOCs.

MW-02

Soil collected from MW-02 exhibited a gasoline range hydrocarbon concentration of 2.0 mg/kg. Additionally, concentrations of n-Butylbenzene, sec-Butylbenzene, Isopropylbenzene, and n-Propylbenzene were detected in MW-02-20 at 0.015, 0.010, 0.004, and 0.016 mg/kg, respectively. These concentrations fall well below the USEPA PRGs of residential soil for n-Butylbenzene, sec-Butylbenzene, isopropylbenzene (Cumene), and n-Propylbenzene which are set at 240, 220, 520, and 240 mg/kg, respectively.

Groundwater collected from MW-02 exhibited a gasoline range hydrocarbon concentration of 0.71 μ g/L. Additionally, concentrations of n-Butylbenzene, sec-Butylbenzene, Isopropylbenzene, n-Propylbenzene, and Naphthalene were detected in MW-02 at 13, 10, 6.7, 21, and 0.8 μ g/L, respectively. State and Federal Maximum Contaminant Levels have not been established for these constituents, but the detected concentrations are exceedingly low.

MW-03

Soil collected from MW-03 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as most VOCs. Toluene was exhibited concentrations of 0.002 and 0.001 mg/kg, respectively. The USEPA PRG for Toluene is set at 5200 mg/kg.

Groundwater collected from MW-03 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as all VOCs.

MW-04

Soil collected from MW-04 exhibited concentrations of gasoline range hydrocarbons of 6.1 and 2.9 mg/kg respectively. Additionally, concentrations of acetone (0.27-0.40 mg/kg), n-Butylbenzene (0.006-0.002 mg/kg), sec-Butylbenzene (0.011-0.003 mg/kg), 1,3,5 Trimethylbenzene (0.002-0.001 mg/kg), 1,2,4 Trimethylbenzene (0.003-0.002 mg/kg), isopropylbenzene (0.003-0.001 mg/kg), n-propylbenzene (0.005-0.002 mg/kg), ethylbenzene (0.041-0.026 mg/kg), Toluene (0.021-0.013 mg/kg), and Total Xylenes (0.18-0.116 mg/kg) were detected. These concentrations fall well below the US EPA PRGs of residential soils for acetone (1600 mg/kg), n-Butylbenzene (240 mg/kg), sec-Butylbenzene (220 mg/kg), 1,3,5 Trimethylbenzene (21 mg/kg), 1,2,4 Trimethylbenzene (52 mg/kg), isopropylbenzene (520 mg/kg), n-propylbenzene (240 mg/kg), ethylbenzene (8.9 mg/kg), Toluene (5200 mg/kg), and Total Xylenes (2700 mg/kg).

Groundwater collected from MW-04 exhibited non-detectable concentrations of gasoline and diesel range hydrocarbons, as well as all VOCs.

Conclusion

The well locations selected essentially evaluated the limits of soil and groundwater impact associated with the detected and mitigated release from the former dispenser islands. Results of soil and groundwater sampling and analysis of samples collected from down-gradient of the former fuel dispensers were non-detect for contaminant concentrations or showed contaminant levels below regulatory screening levels. Given this information, SECOR's concludes that the remaining impacted soil and groundwater is localized to the area immediately down gradient of the former dispenser islands and currently beneath the proposed parking and driveway areas of the Site development currently under construction as indicated on figure 2. As a result, SECOR considers the limits of the impacted groundwater adequately assessed. Based on the extremely low extent of impact and the already-completed source removal along with the overlying land use (driveway and parking) SECOR concludes that conditions at the Site represent neither a recognized environmental condition nor a human health concern in light of the intended residential and commercial development of the Site. Consequently, SECOR recommends no further action or investigation regarding the Site.

7.0 CLOSURE

The conclusions presented in this report are professional opinions based on data described in this report. The opinions of this report have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location, and are subject to the following inherent limitations. SECOR makes no other warranty, either expressed or implied, concerning the conclusions and professional advice that is contained within the body of this report.

Inherent in most projects performed in a heterogeneous subsurface environment, continuing excavation and assessments may reveal findings that are different than those presented herein. This facet of the environmental profession should be considered when formulating professional opinions on the limited data collected on these projects.

This report has been issued with the clear understanding that it is the responsibility of the owner, or their representative, to make appropriate notifications to regulatory agencies. It is specifically not the responsibility of SECOR to conduct appropriate notifications as specified by current County and State regulations.

The information presented in this report is valid as of the date our exploration was performed. Site conditions may degrade with time; consequently, the findings presented herein are subject to change.

Notwithstanding the foregoing, this report was prepared in accordance with SECOR's Master Services Agreement with this Client, and to the extent any provisions of the report conflicts with the Master Services Agreement, the Master Services Agreement shall control.

8.0 REFERENCES

- SECOR, 2007, Workplan for Monitoring Well Installation, Former Impulse Motors, 1210 Bockman Road, San Lorenzo, California, October 2
- Alameda County Health Care Services, 2007, Technical Comments, Fuel Leak Case No. RO0002737 (Global ID #T06019771179), Impulse Motors, 1210 Bockman Road, San Lorenzo, CA, October 12

Summary of Soil Analytical Results TPH by modified EPA 8015B (mg/Kg) Olson - San Lorenzo 1210 Bockman Road San Lorenzo, California

SECOR Job No.: 040T.29215.69

Sample ID	Sampling Depth ⁽¹⁾	Sampling Date		H ⁽²⁾ 5) ⁽³⁾ C12-C22 ⁽⁵⁾
			OT-012	012-022
RWQCB MCL (mg/Kg)		100 ^a	100 ^a
MW-01-18	18	11/7/2007	<0.5	<10
MW-01-20	20	11/7/2007	<0.5	<10
MW-02-17	17	11/7/2007	<0.5	<10
MW-02-20	20	11/7/2007	2.0	<10
MW-03-13	13	11/7/2007	<0.5	<10
MW-03-20	20	11/7/2007	<0.5	<10
MW-04-13	13	11/7/2007	6.1	<10
MW-04-20	20	11/7/2007	2.9	<10

NOTES

- (1) Sample depth is reported as feet below ground surface
- (2) Concentrations reported in mg/Kg
- (3) EPA Test Method
- (4) Characteristic carbon chain of Gasoline
- (5) Characteristic carbon chain of Diesel
- a Maximum Soil Screening Levels in mg/Kg; soil located <20 feet above groundwater;

Source: Cal/EPA CRWQCB-LA Interim Site Assessment & Cleanup Guidebook, 1996.

< - Indicates the concentration was not detected above the laboratory method detection limit.
Only samples analyzed which reported detections were included on the table.

ABBREVIATIONS:

TPH - Total petroleum hydrocarbons

RWQCB MCL - Regional Water Quality Control Board Maximum Contaminant Level

Summary of Soil Analytical Results VOCs by EPA 8260B (mg/Kg) Olson - San Lorenzo 1210 Bockman Road San Lorenzo, California

SECOR Job No.: 040T.29215.69

																		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
											VOCs (2 (8260)(3)								
	Samplin g Depth (1)		Acetone	n- Butylbenzene	sec- butylbenzene	Methyl-tert butyl ether (MtBE)	tert-Amyl Methyl Ether (TAME)	Diisopropyl Ether (DIPE)	Ethyl tert- Butyl Ether (EtBE)	tert-	Benzene	Dibromo ethane (EDB)	1,3,5 Trimethyl benzene	1,2,4 Trimethyl benzene	Dichloro ethane (EDC)	isopropyi benzene	n- Propylbenz ene	Ethylbenzene	Toluene	Total Xylenes
USEPA PRG for Re	esidential		1600	240	220	62	NR	NR	NR	NR	0.6	0.007	21	52	120	NR	240	8.9	5200	2700
Samples																				
MW-01-18	18	11/7/2007	<0.050	<0.002	<0.002	<0.002	< 0.002	<0.002	<0.002	<0.02	<0.005	<0.001	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.005	0.001	<0.003
MW-01-20	20	11/7/2007	0.063	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	< 0.02	<0.005	<0.001	<0,01	<0.01	<0.01	<0.01	<0.01	0.002	<0.001	0.011
MW-02-17	17	11/7/2007	<0.050	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	< 0.02	<0.005	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.001	<0.003
MW-02-20	20	11/7/2007	<0.050		0.010	< 0.002	<0.002	< 0.002	<0.002	<0.02	<0.005	<0.001	<0.01	<0.01	<0.01	0.004	0.016	<0.005	<0.001	<0.003
MW-03-13	13	11/7/2007	<0.050	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.02	<0.005	< 0.001	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.005	0.002	<0.003
MW-03-20	20	11/7/2007		<0.002	<0.002	<0.002	<0,002	<0.002	<0.002	<0.02	<0.005	< 0.001	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.005	0,001	<0.003
MW-04-13	13	11/7/2007		0.006	0.011	<0.002	<0,002	<0.002	<0.002	<0.02	<0.005	<0.001	0.002	0.003	<0.01	0.003	0.005	0.041	0.021	0.18
MVV-04-20	20	11/7/2007	0.40	0.002	0.003	<0.002	<0.002	<0.002	<0.002	<0.02	<0.005	<0.001	0,001	0.002	<0.01	0.001	0.002	0.026	0.013	0.116

NOTES

- (1) Sample depth is reported as feet below ground surface
- (2) Concentrations reported in mg/Kg
- (3) EPA Test Method
- < Indicates the concentration was not detected above the laboratory method detection limit.

ABBREVIATIONS:

VOCs - volatile organic compounds

USEPA PRG - United States Environmental Protection Agency Preliminary Remediation Goals

NR - Not Reported

Summary of Groundwater Analytical Results TPH by modified EPA 8015B (µg/L) Olson - San Lorenzo 1210 Bockman Road San Lorenzo, California SECOR Job No.: 040T.29215.68

	020011	700 140 O 71	5 7 . EUL 10. UU
Sample ID	Sampling Date		PH ⁽²⁾ 15) ⁽³⁾ C12-C22 ⁽³⁾
MW-01-W	11/9/2007	<0.5	<0.4
MW-02-W	11/9/2007	0.71	<0.4
MW-03-W	11/9/2007	<0.5	<0.4
MW-04-W	11/7/2007	< 0.5	< 0.4

NOTES:

- (1) Sample depth is reported as feet below ground surface
- (2) Concentrations reported in μg/L
- (3) EPA Test Method
- (4) Characteristic carbon chain of Gasoline
- (5) Characteristic carbon chain of Diesel
- < Indicates the concentration was not detected above the laboratory method detection limit.

ABBREVIATIONS:

TPH - Total Petroleum Hydrocarbons

Summary of Groundwater Analytical Results VOCs by EPA 8260B (µg/L) Olson - San Lorenzo 1210 Bockman Road San Lorenzo, California

SECOR Job No.: 040T.29215.68

			VOCs ⁽²⁾ (8260) ⁽³⁾														
Sample ID	Sampling Date	Methyl- tert-butyl ether (MtBE)	tert-Amyl Methyl Ether (TAME)	Diisoprop yl Ether (DIPE)	Ethyl tert- Butyl Ether (EtBE)	tert- Butanol (TBA)	Benzene	1,2 Dibromoe thane (EDB)		Ethyl- benzene	Toluene	Total Xylenes	n- Butylben zene	sec- Butylben zene	n- Propylbe nzene	benzene	Napthalene
CA MCLs (µg/L)		13	NR	NR	NR	NR	1	NR	0.5	300	150	1750	NR	NR_	NR	NR	NR
Fedral MCLs (μg/L)	NR	NR	NR	NR	NR	5	NR	5	700	1000	10000	NR	NR	NR	NR	NR
Samples																	
MW-01-W	11/9/2007	<1.0	<1.0	<1,0	<1.0	<10	<0.5	<0,5	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5
MW-02-W	11/9/2007	<1.0	<1.0	<1.0	<1.0	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	13	10	21	6.7	0.8
MW-03-W	11/9/2007	<1.0	¥1.0	<1.0	<1.0	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5
MW-04-W	11/7/2007	<1.0	<1.0	<1.0	<1.0	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5

NOTES:

- (1) Sample depth is reported as feet below ground surface
- (2) Concentrations reported in μg/L
- (3) EPA Test Method
- < Indicates the concentration was not detected above the laboratory method detection limit.

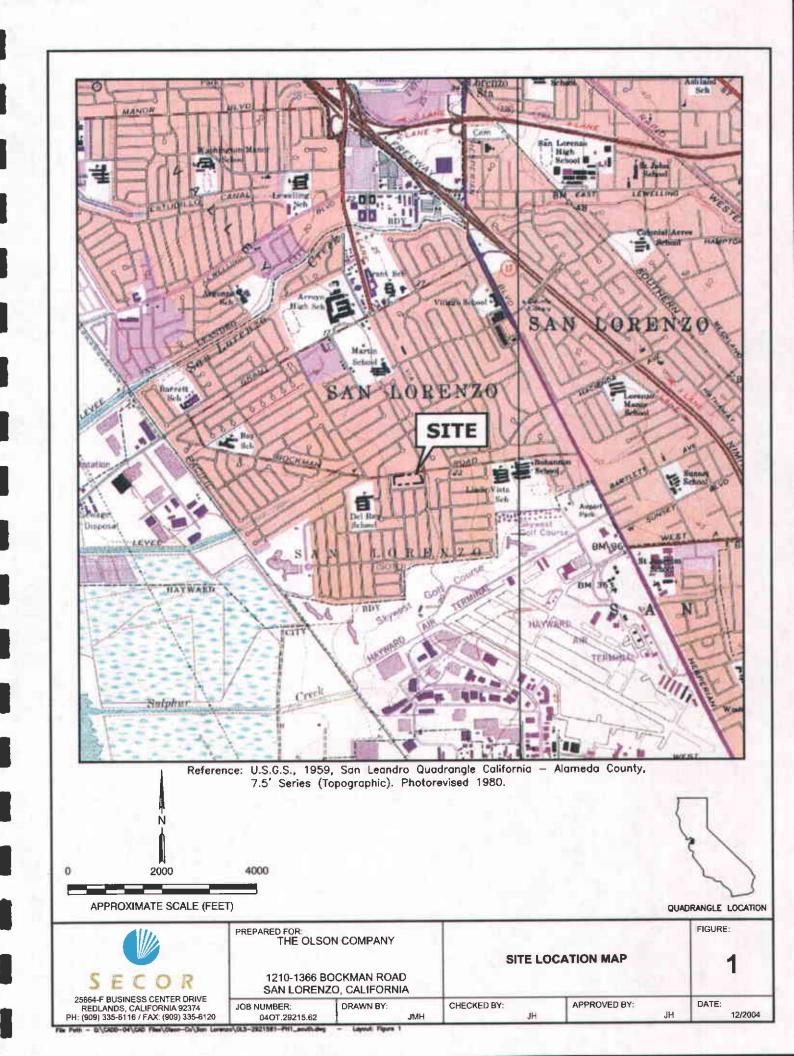
ABBREVIATIONS:

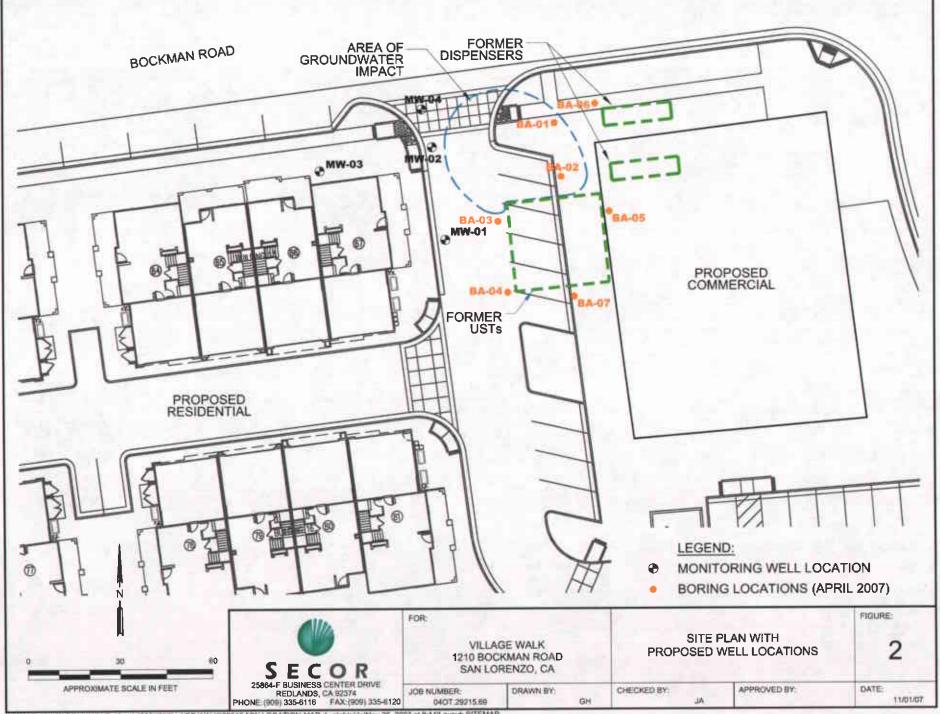
VOCs - Volatile Organic Compounds

CA MCLs - Maximum Contaminant Levels established by the State of California

Federal MCLs - Maximum Contaminant Levels established by the Federal Environmental Protection Agency

NR - Not Reported





APPENDIX A BORING LOGS & WELL FIELD DATA SHEETS

PROJECT: Olson - San Lorenzo WELL / PROBEHOLE / BOREHOLE NO: LOCATION: 1210 Bockman Road, San Lorenzo, CA MW-01 PAGE 1 OF 1 SECOR PROJECT NUMBER: 040T.29215.69 EASTING (ft): NORTHING (ft): STARTED 11/7/07 DRILLING: **COMPLETED: 11/7/07** LONGITUDE: LATITUDE: INSTALLATION: STARTED 11/7/07 **COMPLETED: 11/7/07 GROUND ELEV (ft):** TOC ELEV (ft): DRILLING COMPANY: Gregg Drilling BOREHOLE DEPTH (ft): 20.0 INITIAL DTW (ft): 18 11/7/07 DRILLING EQUIPMENT: D-32 STATIC DTW (ft): 7.5 11/7/07 WELL DEPTH (ft): 13.0 DRILLING METHOD: Hollow Stem Auger/Direct Push BOREHOLE DIAMETER (in): 10 WELL CASING DIAMETER (in): 4 SAMPLING EQUIPMENT: Continuous Core LOGGED BY: Jason Adelaars CHECKED BY: Measured Recov. Graphic Log Sample Blow Count addrea PID (units) (feet) uscs Well Time Description Construction Sample ID Native Soil Gravel CLAY; CL; 2.5Y 2.5/1 black; medium to CL high plasticity; hard; slightly moist; no odor Grout Chips 5 ...same as above; 5Y 4/1 dark gray; silty; 0810 medium plasticity; firm to hard; moist; no 0.6 MW-01-7 Sand 20 10 10 ...same as above; 2.5Y 4/3 olive brown; silty; medium plasticity; firm to hard; moist ...same as above ; soft; very moist 15 15 0830 ..same as above ; 5Y 4/3 olive; medium to 0.0 ∇ MW-01-18 high plasticity; firm to hard 0820 0.0 ...same as above; soft; wet 20-MW-01-20 20 Groundwater Encountered @ 18' BGS Geoprobe Borehole Depth - 20' BGS -Backfilled With Cement Grout. Monitoring Well Installed Adjacent To Geoprobe Borehole. Hole terminated at 20 feet. FORM 304 OLSON-SAN LORENZO,GPJ 25 25

PROJECT: Olson - San Lorenzo WELL / PROBEHOLE / BOREHOLE NO: LOCATION: 1210 Bockman Road, San Lorenzo, CA MW-02 PAGE 1 OF 1 SECOR PROJECT NUMBER: 040T.29215.69 EASTING (ft): NORTHING (ft): COMPLETED: 11/7/07 STARTED 11/7/07 DRILLING: LONGITUDE: LATITUDE: INSTALLATION: STARTED 11/7/07 **COMPLETED: 11/7/07** TOC ELEV (ft): **GROUND ELEV (ft):** DRILLING COMPANY: Gregg Drilling INITIAL DTW (ft): 18 11/7/07 BOREHOLE DEPTH (ft): 20.0 DRILLING EQUIPMENT: D-32 STATIC DTW (ft): 7.5 11/7/07 WELL DEPTH (ft): 13.0 DRILLING METHOD: Hollow Stem Auger/Direct Push WELL CASING DIAMETER (in): 4 BOREHOLE DIAMETER (in): 10 LOGGED BY: Jason Adelaars CHECKED BY: SAMPLING EQUIPMENT: Continuous Core Measured Recov. (feet) Blow Count Graphic Log Sample Well Time Description Sample ID Construction Native Soil Gravel CLAY; CL; 2.5Y 4/2 dark gray/sh brown; trace sand; hard; high plasticity; slightly moist; no odor Grout Chips 5 ...same as above; 2.5Y 5/3 olive brown; slity; firm to hard; medium plasticity; slightly moist; no odor 0850 0.1 MW-02-8 Sand 10-20 10 ...same as above; GLEY 4/10Y dark greenish gray; firm to hard; high to medium plasticity; no odor; moist ..same as above; 2,5Y 5/3 light olive brown; firm to hrad; medium plasticity; moist; no odor 15 15-0900 0.0 MW-02-17 0905 22.8 ...same as above; 5Y 4/2 olive gray; wet; MW-02-20 20 20 slight hydrocarbon odor Groundwater Encountered @ 18' BGS Geoprobe Borehole Depth - 20' BGS -**Backfilled With Cement Grout. Monitoring** Well Installed Adjacent To Geoprobe Borehole. Hole terminated at 20 feet. CLSON-SAN LORENZO.GPJ 25 25 GEO FORM 304

PROJECT: Olson - San Lorenzo WELL / PROBEHOLE / BOREHOLE NO: LOCATION: 1210 Bockman Road, San Lorenzo, CA MW-03 PAGE 1 OF 1 SECOR PROJECT NUMBER: 040T.29215.69 EASTING (ft): NORTHING (ft): **COMPLETED: 11/7/07** DRILLING: STARTED 11/7/07 LONGITUDE: LATITUDE: **COMPLETED: 11/7/07** INSTALLATION: STARTED 11/7/07 GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: Gregg Drilling INITIAL DTW (ft): 17 11/7/07 BOREHOLE DEPTH (ft): 20.0 **DRILLING EQUIPMENT: D-32** STATIC DTW (ft): 10 11/7/07 WELL DEPTH (ft): 16.0 DRILLING METHOD: Hollow Stem Auger/Direct Push WELL CASING DIAMETER (in): 4 BOREHOLE DIAMETER (in): 10 SAMPLING EQUIPMENT: Continuous Core LOGGED BY: Jason Adelaars CHECKED BY: Graphic Sample Blow Well Time Description Sample ID Construction **Native Soil** Gravel CLAY; CL; 2.5Y 2.5/1 black; trace gravel and sand; hard to very hard; high plasticity; slightly moist; no odor Grout Chips ...same as above ; 2.5Y 4/4 olive brown; trace sand; firm; medium plasticity; slightly moist; no odor Y 10 20 10 Sand ..same as above; 2.5Y 4/3 olive brown; silty; firm; moist; no odor 15 15 ...same as above; very moist 1115 0.0 MW-03-16 1110 0.0 20 20 MW-03-20 same as above; wet Groundwater Encountered @ 17' BGS Geoprobe Borehole Depth - 20' BGS -Backfilled With Cement Grout. Monitoring Well Installed Adjacent To Geoprobe Borehole. Hole terminated at 20 feet. GED FORM 304 OLSON-SAN LORENZO GPJ 25 25-

PROJECT: Olson - San Lorenzo WELL / PROBEHOLE / BOREHOLE NO: LOCATION: 1210 Bockman Road, San Lorenzo, CA MW-04 PAGE 1 OF 1 SECOR PROJECT NUMBER: 040T.29215.69 EASTING (ft): NORTHING (ft): DRILLING: STARTED 11/7/07 **COMPLETED: 11/7/07** LONGITUDE: LATITUDE: INSTALLATION: STARTED 11/7/07 **COMPLETED: 11/7/07** TOC ELEV (ft): GROUND ELEV (ft): DRILLING COMPANY: Gregg Drilling INITIAL DTW (ft): 17 11/7/07 BOREHOLE DEPTH (ft): 20.0 DRILLING EQUIPMENT: D-32 STATIC DTW (ft): 8 11/7/07 WELL DEPTH (ft): 13.0 DRILLING METHOD: Hollow Stem Auger/Direct Push WELL CASING DIAMETER (in): 4 BOREHOLE DIAMETER (in): 10 SAMPLING EQUIPMENT: Continuous Core LOGGED BY: Jason Adelaars CHECKED BY: Sample Well Description Sample ID Construction Soil CLAY; CL; 2.5Y 4/3 dark grayish brown; trace sand; hard; high plasticity; slightly moist: no odor Well ...same as above; 2.5Y 4/3 olive brown; firm; Abandonded medium plasticity; moist; no odor - Backfilled With Cement Grout 10 20 ...same as above; GLEY1 5/10Y greenish gray; silty; medium plasticity; firm; slightly 1315 moist; no odor 0.2 MW-04-13 ...same as above; 5Y 4/3 olive; firm to hard; medium plasticity; moist to wet 15 15 ...same as above; hard to very hard; medium plasticity; moist to wet 1300 3.7 20 MW-04-20 20 same as above Groundwater Encountered @ 17' BGS Geoprobe Borehole Depth - 20' BGS -**Backfilled With Cement Grout - Temporary** Monitoring Well Installed, Purged Dry, Sampled, And Abandonded With Cement OLSON-SAN LORENZO. GPJ Hole terminated at 20 feet. 25 25 GEO FORM 304

APPENDIX B LABORATORY DATA SHEETS AND QA/QC RESULTS



Client:

SECOR

Project: Olson - San Lorenzo

25864-F Business Center Drive Redlands, CA 92374-4515

rediants, OA 323744313

Date Sampled:

11/07/07

Date Received: Job Number:

11/08/07

30426

CASE NARRATIVE

The following information applies to samples which were received on 11/08/07:

The samples were received at the laboratory chilled and sample containers were intact.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested. The date of issue for this report is 11/09/07.

Report approved by:

Att A Class

2007.11.09

11:18:53 -08'00'

Robert R. Clark, PhD

President

ELAP Lab# 2419, 2479, 2527, 2373, 2562

RL: Reporting Limit - The lowest level at which the compound can be reliably detected under normal laboratory conditions.

ND: Not Detected - The compound was analyzed for, but was not found to be present at or above the Reporting Limit.

NA: Not Analyzed -- This compound was not on the list of compounds requested for analysis.

Page 1 of 15



C6 to C22 Hydrocarbons by GCMS and GC/FID

Client:

SECOR

Project:

Olson - San Lorenzo

Job No.:

30426

Matrix:

Soil RL/AW

Analyst:

Date Sampled:

11/07/07

Date Received:

11/08/07

Batch Number:

M5TPHGS761

8015DS4212

C6-C12		
0.50	10	
DO	ND	
ND	ND	
ND	ND	
ND	ND	
2.0	ND	
ND	ND	
ND	ΝĎ	
6.1	ND	
2.9	ND	
	(IXIIII	
GCMS	GC/FID	
N/A	11/08/07	
11/08/07	11/08/07	
	0.50 mg/Kg ND ND ND ND ND Scale	0.50 10 mg/Kg mg/Kg ND ND Scill ND 2.9 ND GCMS GC/FID N/A 11/08/07



QC Sample Report - Volatile Hydrocarbons as Gasoline by GCMS

Matrix: Soil

Batch Number: M5TPHGS761

Batch Accuracy Results

Spike Sample ID: Laborator	y Control San	nple			Analytical Notes:
Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	
Gasoline			70 - 130		:

Batch Precision Results

y Control S	Sample				Analytical Notes:
MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail	
	MS Sample Result (mg/Kg)	MS Sample (mg/Kg) MSD Sample (mg/Kg)	MS Sample Result (mg/Kg) MSD Sample Result (mg/Kg) Relative Percent Difference (RPD)	MS Sample Result (mg/Kg) MSD Sample Result (mg/Kg) Relative Percent Difference (RPD) RPD Acceptance Limit	MS Sample Result (mg/Kg) MSD Sample Result (mg/Kg) Relative Percent Difference (RPD) RPD Acceptance Limit Pass/Fail

MS: Matrix Spike

LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate

LCSD: Laboratory Control Sample Duplicate



QC Sample Report - Extractable Hydrocarbons as Diesel by GC/FID

Matrix: Soil

Batch Number: 8015DS4212

Batch Accuracy Results

ry Control	Sample			Analytical Notes:
Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	
			×:::::::::::::::::::::::::::::::::::::	
	Spike Concentration (mg/Kg)	Spike Co (mg/Kg) Spike Sar % Recow	Spike Concentration (mg/Kg) Spike Sample % Recovery % Recovery Acceptance Limits	Spike Concentration (mg/Kg) Spike Sample % Recovery Acceptance Limits Pass/Fail

Batch Precision Results

AS Sample Result mg/Kg) MSD Sample Result mg/Kg) Relative Percent Difference (RPD) RPD Acceptance Limit	MS Sample R (mg/kg) MSD Sample R (mg/kg) Relative Peror Difference (RI Acceptance Li Pass/Fail	S/MSD Sample ID: MW-02	2-17					Analytical Notes:
25 25 ED E4 E		ompound	Sample Re y/Kg)	Sample (g)	മ്ജ	PD cceptance l	ss/Fa	

MS: Matrix Spike

LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate

LCSD: Laboratory Control Sample Duplicate



C6 to C22 Hydrocarbons by GCMS and GC/FID

Client:

SECOR

Project:

Olson - San Lorenzo

Job No.:

30426 Water

Matrix: Analyst:

vvater TU / AW Date Sampled:

11/07/07

Date Received:

11/08/07

Batch Number: MS4TP

MS4TPHGW3836

8015DW4211

Carbon Chain Length:	C6-C12	C12-C22	
Reporting Limits:	0.50	0.40	
Units:	mg/L	mg/L	
Method Blank	ND	ND	
MW-04-W	ND	ND	
		······································	
	11 × 10 × 10 × 10 × 10 × 10 × 10 × 10 ×		
	e.::		
ESUNCIAL DALLE DE LA COMPACIÓN			
Method:	GCMS	GC/FID	207 1 207 2
Date Extracted:	N/A	11/08/07	
Date Analyzed:	11/08/07	11/08/07	



QC Sample Report - Volatile Hydrocarbons as Gasoline by GCMS

Matrix: Water

Batch Number: MS5TPHGW3836

Batch Accuracy Results

Compound	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Gasoline				

Batch Precision Results

	<u></u>	=			
Compound	MS Sample Resul (mg/L)	MSD Sample Resu (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Gasoline					

MS: Matrix Spike

LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate

LCSD: Laboratory Control Sample Duplicate



QC Sample Report - Extractable Hydrocarbons as Diesel by GC/FID

Matrix: Water

Batch number: 8015DW4211

Batch Accuracy Results

ke Sample ID: Laboratory Control Sample					
Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail		
	Spike Concentration (mg/L)	Spike Concentration (mg/L) Spike Sample % Recovery	Spike Concentration (mg/L) Spike Sample % Recovery % Recovery Acceptance Limits	Spike Concentration (mg/L) Spike Sample % Recovery Acceptance Limits Pass/Fail	

Batch Precision Results

MS/MSD Sample ID: Labora	atory Con	trol Samp	le			Analy
Compound	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail	
Diesel	3.13	3.25	4%	25%	Pass	

Analytical Notes:

MS: Matrix Spike

LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate LCSD: Laboratory Control Sample Duplicate



Volatile Organic Compounds by EPA 8260B

Client: SECOR

Project: Olson - San Lorenzo

Job No.: 30426 Matrix: Soil

Analyst: RL

Date Sampled:

11/07/07

Date Received:

11/08/07

Date Analyzed:

11/08/07

Batch Number:

M58260S761

	Sample ID:	. Blank	MW-01-18	MW-01-20	MW-02-17	MW-02-20	MW-03-16
Compounds	RL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Acetone	0.050	ND	ND	0.083	ND	ND	ND
tert-Amyl Methyl Ether (TAM	E) 0.002	ND	ND	ND	ND	ND	ND
Benzene	0.001	ND	ND	ND	ND	ND	ND
Bromobenzene	0.005	ND	ND	ND	ND	ND	ND
Bromochloromethane	0.005	ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.001	ND	ND	ND	ND	ND	ND
Bromoform	0.005	ND	ND	ND	ND	ND	ND
Bromomethane	0.005	ND	ND	ND	ND	ND	MD
tert-Butanol (TBA)	0.020	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	0.010	ND	ND	ND	ND	ND	ND
n-Butylbenzene	0.002	ND	ND	ND	ND	0.015	ND
sec-Butylbenzene	0.002	ND	ND	ND	ND	0.010	ND
tert-Butylbenzene	0.002	ND	ND	ND	ND	ND	ND
Carbon disulfide	0.010	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.001	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.001	ND	ND	ND	ND	ND	ND
Chloroethane	0.005	ND	ND	ND	ND	ND	ND
Chloroform	0.002	ND	ND	ND	ND	ND	ND
Chloromethane	0.001	ND	ND	ND	ND	ND	ND
2-Chlorototuene	0.002	ND	ND	ND	ND	ND	ND:
4-Chlorotoluene	0.002	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.002	ND	NĐ	ND	ND	ND	ND
1,2-Dibromoethane	0.002	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropar	ne 0.010	ND	ND.	ND	ND	ND	ND
Dibromomethane	0.001	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.001	ND	ND	ND	ND.	ND	ND
1,3-Dichlorobenzene	0.002	ND	ND	ND	МD	ND	ND
1,4-Dichlorobenzene	0.002	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.005	ND	ND	ND	ND	ND	В
1,1-Dichloroethane	0.001	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.001	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.005	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.002	ND	ND	ND	ND	DИ	ND
trans-1,2-Dichloroethene	0.002	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.001	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.001	ND	ND	ND	ND	ND	ОM
2,2-Dichloropropane	0.001	ND	ND	МĎ	ND	ND	ND
1,1-Dichloropropene	0.001	ND	ND	ND	ND	ND	D



Client: SECOR

Project: Olson - San Lorenzo

Job No.: 30426 Matrix: Soil

Analyst: RL

Date Sampled:

11/07/07

Date Received:

11/08/07

Date Analyzed:

11/08/07

Batch Number:

M58260S761

ï.	Sample ID:	Blank	MW-01-18	MW-01-20	MW-02-17	MW-02-20	MW-03-16
Compounds	RL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
cis-1,3-Dichloropropene	0.001	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.001	ND	ND	ND	ND:	ND	ND
Diisopropyl Ether (DIPE)	0.002	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.001	ND	ND	0.002	ND:	ND	ND
Ethyl tert-Butyl Ether (EtBE)	0.002	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.001	ND	ND	ND	ND	ND	ND
2-Hexanone	0.010	ND	ND	ND	ND	ND	ND
Isopropylbenzene	0.001	ND	ND	ND	ND	0.004	ON
p-Isopropyltoluene	0.002	ND	ND	ND	ND	ND	ND
Methylene chloride	0.050	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	0.010	ND	ND	ND	ND	ND	ND
Methyl tert-Butyl Ether (MtBI	∃) 0.002	ND	ND	ND	ND	ND	ND
Naphthalene	0.002	ND	ND	ND	ND	ND	ND
n-Propylbenzene	0.001	ND	NĐ	ND	ND	0.016	ND
Styrene	0.001	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.001	ND	NP	ND	ND	ND	ND:
1,1,2,2-Tetrachloroethane	0.002	ND	ND	ND	ND	ND	ND
Tetrachloroethene	0.001	ND	ND	ND	ND	ND	ND
Toluene	0.001	ND	0.001	ND	ND	ND	0.002
1,2,3-Trichlorobenzene	0.002	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.002	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.001	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.003	ND	ND	ND	ND	ND	ND
Trichloroethene	0.001	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.003	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	0.001	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	0.005	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.001	NO	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	0.001	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.002	ND	ND	ND	ND	ND	ND
Xylenes, m-,p-	0.002	ND	ND	0.008	ND	0.002	ND
Xylene, o-	0.001	ND	ND	0.003	ND	ND	ND

Ourrogates in 70 Neck	svery (stocchi	ance Link	s. 70 - 13070)				
	Sample ID:	Blank	MW-01-18	MW-01-20	MW-02-17	MW-02-20	MW-03-16
Dibromofluoromethane		107	108	107	106	105	108
Toluene-d8		95	96	95	94	96	95
Bromofluorobenzene		104	104	106	104	104	105



Client: SECOR

Project: Olson - San Lorenzo

Job No.: 30426 Matrix. Soil

Analyst: RL

Date Sampled:

11/07/07

Date Received:

11/08/07

Date Analyzed:

11/08/07

Batch Number:

M58260S761

	Sample ID:	MW-03-20	MW-04-13	MW-04-20	·····
Compounds	RL	mg/Kg	mg/Kg	mg/Kg	
Acetone	0.050	ND	0.27	0.40	
tert-Amyl Methyl Ether (TAN	IE) 0.002	ND	ND	ND	
Benzene	0.001	ND	ND	ND	•
Bromobenzene	0.005	ND	ND	ND	
Bromochloromethane	0.005	ND	ND	ND	
Bromodichloromethane	0.001	ND	ND	ND	
Bromoform	0.005	ND	ND	ND	
Bromomethane	0.005	ND	ND	ND	
tert-Butanol (TBA)	0.020	ND	ND	ND	
2-Butanone (MEK)	0.010	ND	ND	ND	
n-Butylbenzene	0.002	ND	0.006	0.002	
sec-Butylbenzene	0.002	ND	6.011	0.003	
tert-Butylbenzene	0.002	- ND	ND	ND	
Carbon disulfide	0.010	ND	ND	ND	
Carbon tetrachloride	0.001	ND	ND	ND	
Chlorobenzene	0.001	ND	ND	ND	
Chloroethane	0.005	ND	ND	ND	
Chloroform	0.002	ND	ND	ND	
Chloromethane	0.001	ND	ND	ND	
2-Chlorotoluene	0.002	ND	MD	ND	
4-Chlorotoluene	0.002	ND	ND	ND	
Dibromochloromethane	0.002	ND	ND	ND	
1,2-Dibromoethane	0.002	ND	ND	ND	
1,2-Dibromo-3-chloropropar	те 0.010	ND	ΦM	ND	
Dibromomethane	0.001	ND	ND	ND	
1,2-Dichlorobenzene	0.001	MD	ND	ND	
1,3-Dichlorobenzene	0.002	ND	ND	ND	
1,4-Dichlorobenzene	0.002	ND	ND	ND	
Dichlorodifluoromethane	0.005	ND	ND	ND	
1,1-Dichloroethane	0.001	ND	ND	ND	
1,2-Dichloroethane	0.001	ND	ND	ND	
1,1-Dichloroethene	0.005	ND	ND	ND	
cis-1,2-Dichloroethene	0.002	ND	ND	ND	
trans-1,2-Dichloroethene	0.002	ND	ND	ND	
1,2-Dichloropropane	0.001	ND	ND	ND	
1,3-Dichloropropane	0.001	ND	Q	ND .	
2,2-Dichloropropane	0.001	ND	ND	ND	
1,1-Dichloropropene	0.001	ND	ND	ND	



SECOR Client:

Project: Olson - San Lorenzo

Job No.: 30426 Matrix: Soil

Date Sampled:

11/07/07

Date Received:

11/08/07

Date Analyzed:

11/08/07

Analyst: RL

Batch Number:

M58260S761

	Sample ID:	MW-03-20	MW-04-13	MW-04-20	
Compounds	RL	mg/Kg	mg/Kg	mg/Kg	
cis-1,3-Dichloropropene	0.001	ND	ND	ND	
trans-1,3-Dichloropropene	0.001	ND	ND	ND	
Diisopropyl Ether (DIPE)	0.002	ND	ND	ND	
Ethylbenzene	0.001	ND	0.041	0.026	
Ethyl tert-Butyl Ether (EtBE)	0.002	ND	ND	ND	
Hexachtorobutadiene	0.001	ND	ON	ND	
2-Hexanone	0.010	ND	ND	ND	
Isopropyibenzene	0.001	ND	0.003	0.001	
p-Isopropyltoluene	0.002	ND	ND	ND	
Methylene chloride	0.050	ND	ND	ND	
4-Methyl-2-pentanone	0.010	ND	ND	ND	
Methyl tert-Butyl Ether (MtBI	E) 0.002	ND	ND	ND	
Naphthalene	0.002	ND	ND	ND	
n-Propylbenzene	0.001	ND	0.005	0.002	
Styrene	0.001	ND	ND	ND	
1,1,1,2-Tetrachloroethane	0.001	ŇD	ND	ND	
1,1,2,2-Tetrachloroethane	0.002	ND	ND	ND	
Tetrachloroethene	0.001	ND:	ND	ND	
Toluene	0.001	0.001	0.021	0.013	
1,2,3-Trichlorobenzene	0.002	ND:	DM	ND	
1,2,4-Trichlorobenzene	0.002	ND	ND	ND	
1,1,1-Trichloroethane	0,001	ND	ND	ND	
1,1,2-Trichloroethane	0.003	ND	ND	ND	
Trichloroethene	0.001	ND	ND	ND	
1,2,3-Trichloropropane	0.003	ND	ND	ND	
Trichlorofluoromethane	0.001	DM		ND.	
Trichlorotrifluoroethane	0.005	ND	ND	ND	
1,2,4-Trimethylbenzene	0.001	ND	0.003	0.002	
1,3,5-Trimethylbenzene	0.001	ND	0.002	0.001	
Vinyl chloride	0.002	ND	ND	ND	
Xylenes, m-,p-	0.002	ND	0.14	0.089	
Xylene, o-	0.001	ND	0.040	0.027	

Sulfogates III /6 Iteco	very (Accep	Menice Limits	. 10 - 100 70)		
	Sample ID:	MW-03-20	MW-04-13	MW-04-20	
Dibromofluoromethane		107	102	102	
Toluene-d8		96	96	96	
Bromofluorobenzene		104	112	108	



QC Sample Report - Volatile Organic Compounds by EPA 8260B

Matrix: Soil

Batch Number: M58260S761

Batch Accuracy Results

Spike Sample ID: Laboratory Co	ontrol San	nple		
Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
1,1-Dichloroethene	0.050	90	70 - 130	Pass
Benzene	0.050	- 88	70 - 130	Pass
Trichloroethene	0.050	97	70 - 130	Pass
Toluene	0.050	84	70 - 130	Pass
Chlorobenzene	0.050	88	70 - 130	Pass

Analytica	I Notes:
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Batch Precision Results

MS/MSD Sample ID: MW-01-18	3				
Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
1,1-Dichloroethene	0.0518	0.0477	8%	25%	Pass
Benzene	0.0504	0.0471	7%	25%	Pass
Trichloroethene	0.0551	0.0511	8%	25%	Pass
Toluene	0.0489	0.0456	7%	25%	Pass
Chlorobenzene	0.0498	0.0463	7%	25%	Pass

Αп	alytica	al No	tes:	
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1				
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1				

MS: Matrix Spike

LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate



Client: SECOR

Project: Olson - San Lorenzo

Job No.: 30426 Matrix: Water Analyst: TU Date Sampled:

11/07/07

Date Received:

11/08/07

Date Analyzed:

11/08/07

Batch Number:

MS4820W3836

	Sample ID:	Blank	MW-04-W
Compounds	RL	μ g/L	μg/L
Acetone	50	ND	ND
tert-Amyl Methyl Ether (T	AME) 1.0	ND	ND
Benzene	0.5	ND	ND
Bromobenzene	1.0	ND	ND
Bromochloromethane	1.0	ND	ND
Bromodichloromethane	0.5	ND	NO.
Bromoform	0.5	ND	ND
Bromomethane	2,0	ND	ND
tert-Butanol (TBA)	10	ND	ND
2-Butanone (MEK)	10	DM	ND D
n-Butylbenzene	1.0	ND	ND
sec-Butylbenzene	0.5	ND	ND
tert-Butylbenzene	0.5	ND	ND
Carbon disulfide	10	ND	ND
Carbon tetrachloride	0.5	ND	ND
Chlorobenzene	0.5	ND	ND
Chloroethane	0.5	ND	ND
Chloroform	0.5	ND	ND
Chloromethane	2.0	ND	ND
2-Chlorotoluene	0.5	ND	ND
4-Chlorotoluene	0,5	ND	ND
Dibromochloromethane	0.5	ND	ND .
1,2-Dibromoethane	0.5	ND	ND
1,2-Dibromo-3-chiaroproj	pane 10	ND	ND .
Dibromomethane	0.5	ND	ND
1,2-Dichlorobenzene	0.5	ND	ND
1,3-Dichlorobenzene	0.5	ND	ND
1,4-Dichlorobenzene	0.5	ND	ND
Dichlorodifluoromethane	0.5	ND	ND
1,1-Dichlomethane	0.5	ND	ND
1,2-Dichloroethane	0.5	ND	ND
1,1-Dichlorgethene	0.5	ND	ND
cis-1,2-Dichloroethene	0.5	ND	ND
trans-1,2-Dichloroethene	0.5	ND	ND:
1,2-Dichloropropane	0.5	ND	ND
1,3-Dichloropropane	0.5	ND	ND .
2,2-Dichloropropane	0.5	ND	ND
1,1-Dichloropropene	0.5	ND	ND ON



Client: SECOR

Project: Olson - San Lorenzo

Job No.: 30426 Matrix: Water Date Sampled:

11/07/07

Date Received:

11/08/07

Date Analyzed:

11/08/07

Batch Number:

MS4820W3836

Analyst: TU

MW-04-W Sample ID: Blank Compounds RL μg/L μg/L 0.5 ND ND cis-1,3-Dichloropropene trans-1,3-Dichloropropene 0.5 ND: ND Diisopropyl Ether (DIPE) 1.0 ND ND Ethylbenzene 0.5 ND ND ND ND Ethyl tert-Butyl Ether (EtBE) 1.0 ND ND Hexachlorobutadiene 0.5 ND 10 ND 2-Hexanone ND ND 0.5 Isopropylbenzene ND p-Isopropyltoluene 0.5 ND Methylene chloride 50 ND ND 4-Methyl-2-pentanone 5.0 ND ND Methyl-tert-butyl ether (MtBE) 1.0 ND ND Naphthalene 0.5 ND ND 0.5 ND ND n-Propylbenzene ND ND 0.5 ND: ND: 1,1,1,2-Tetrachioroethane 0.5 ND ND 1,1,2,2-Tetrachloroethane 1.0 Tetrachioroethene 0.5 ND ND Toluene 0.5 ND ND 1,2,3-Trichlorobenzene 0.5 ND ND 1,2,4-Trichlorobenzene ND ND 0.5 ND 0.5 ND 1,1,1-Trichloroethane ND 1,1,2-Trichloroethane 0.5 ND ND ND Trichlorgethene 0.5 0.5 ND ND 1,2,3-Trichloropropane ND ND Trichlorofluoromethane 0.5 Trichlorotrifluoroethane 5.0 ND ND 1,2,4-Trimethylbenzene 0.5 ND ND ND ND 1,3,5-Trimethylbenzene 0.5 ND ND Vinyl chloride 0.5 ND ND 1.0 Xvlenes, m-,p-0.5 ND ND Xylene, o-

Sample ID:	Blank	MW-04-W
Dibromofluoromethane	107	108
Toluene-d8	104	106
Bromofluorobenzene	96	96



QC Sample Report - Volatile Organic Compounds by EPA 8260B

Matrix: Water

Batch Number: MS48260W3836

Batch Accuracy Results

Spike Sample ID: Laboratory C	ontrol San	nple		
Compound	Spike Concentration (µg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
1,1-Dichloroethene	50	83	70 - 130	Pass
Benzene	50	110	70 - 130	Pass
Trichloroethene	50	100	70 - 130	Pass
Toluene	50	108	70 - 130	Pass
I Gruerre				

Analytical Notes:	
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Batch Precision Results

MS/MSD Sample ID: MW-04-W					
Compound	MS Sample Result (μg/L)	MSD Sample Result (μg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
1,1-Dichloroethene	54.85	56.33	3%	25%	Pass
Benzene	54.47	55.03	1%	25%	Pass
Trichloroethene	50.28	50.17	0%	25%	Pass
Taluene	52 66	52.67	0%	25%	Pass
Chlorobenzene	46.17	46.03	0%	25%	Pass

Analytical Notes:	

MS: Matrix Spike

LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate LCSD: Laboratory Control Sample Duplicate

Analytical Laboratories, Inc.

Chain of Custody Record

Centrum Job # 304240

1401 Research Park Drive, Suite 100 Riverside, CA 92507

3299 Hill Street, Suite 305 Signal Hill, CA 90755

www.centrum-lebs.com

iab@centrum-labs.com

	Voice: 951.779.0310 ● 800 Fax: 951.779.0344	0.798.933	36		Voice: 562.498.700: Fax: 562.498.8617	5			Pleas	e Circ	e A	nah	/sei	Re	que	esti	ed		\	
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6	MW-02-20		905						X	X										
7	MW-03-16		1115						X	X								L		
8	MW-03-20		1100						X	X										
9	MW-04-13		1315						X	$\Box x$										
10	MW-04-20	1	1300	4		4			X	>	₹			П						
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constitutes	authorization to perform the an and Conditions set forth on the b	slyses spe	cified above		8) Received for Labora	tory by:	11/2		ime:	000	arier	0 U	PS/F	ed E	7 (Hen	d ce	rried	Sample Locator Number:	<u>5</u> _
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l <u></u>																			* with prior	approval out

Laboratories, inc.

Chain of Custody Record

Centrum Job # 304240

Page 2 of 2

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lab@centrum-labs.com

	Volce: 951.779.0310 ● 80 Fax: 951.779.0344	0.798.933			Voice: 562,498,700: Fax: 562,498,8617		_		Ple	286	Circ	le A	naly	set	Re	que	ste	<u>a</u>	$\overline{}$	
Project No: Project Mans	Ason-Adec	MRG	Project Na Phone: email: Address: (Report and St		Fax: Kute: Reports and Invoks w	III be sent here	Hel, or EPA 8015B DRO	, or EPA 8015B GRO	Fuel ID (TVH, TEH), Chron Chain (specify ranges)	DTEXMINE DAIN G-C22	MOCH: \$280B, or 624	BTEXOxygenates Only	SVOCs: 8270C, or 625	8051A78052: Pesticides, or PCBs, or PestiPCB	AP AP	THE 22 (CAM), or RCRA, or PP	TCLP, STLC	99	PH), or 413.2, or 1864	Turn-Around Time see note* 24 Hr. RUSH * 48 Hr. RUSH * K Normal TAT Other Requires PRIOR approval, additional charges apply Requested due date:
Centrum ID	Sample ID [As it should appear on report)	Date sampled	Time sampled	Sample	Site location	Containers:	LUFT Diesel,	LUFT Gas,		9021B:	900	ë Ç	SVOCs:	3081A/80	٤	Mercale:	導し	Ĕ.	418.1 (TRPH),	Remarks/Special Instructions
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Laboratory N	iotes:				1 CARGO SERVE		17	<u> 10 1</u>	<u>, 14</u>		ки. Repor	For	nats:	Ch	eck a	l ap	pücab	de		
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CERTIFIED HAZARDOUS WASTE TESTING MOBER & IN HOUSE LABORATORIES

Client:

SECOR

25864-F Business Center Dr.

Redlands, CA 92374-4515

Date Sampled:

11/09/07

Date Received:

11/12/07

Job Number:

30445

Project: Olson - San Lorenzo

CASE NARRATIVE

The following information applies to samples which were received on 11/12/07:

The samples were received at the laboratory chilled, all sample containers and custody seals were intact.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested. The date of issue for this report is 11/16/07.

Report approved by:

ASHA Clas

2007.11.16 14:39:19 -08'00'

Robert R. Clark, PhD

President

ELAP Lab# 2419, 2479, 2527, 2373, 2562

RL: Reporting Limit -- The lowest level at which the compound can be reliably detected under normal laboratory conditions.

ND: Not Detected - The compound was analyzed for, but was not found to be present at or above the Reporting Limit.

NA: Not Analyzed -- This compound was not on the list of compounds requested for analysis.

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C6 to C40 Hydrocarbons by GCMS and GC/FID

Client:

SECOR

Project:

Olson - San Lorenzo

Job No.: Matrix: 30445 Water

Analyst:

Date Sampled:

11/09/07

Date Received: Batch Number: 11/12/07

MS4TPHGW3841 8015DW4214

	11000		
it:	CMR / AW		

Carbon Chain Length:	C6-C12	C12-C22	
Reporting Limits:	0.50	0.40	
Units:	mg/L	mg/L	
Method Blank	ND.	ND	
MW-01-W	ND	ND	
MW-02-W	0.71	ND	
MW-03-W	ND	ND	
	g - 1 8 0 100 100 100 100 100 100 100 100 100 1		
	(A.N.4.)		::::::::::::::::::::::::::::::::::::::
4			
Method:	GCMS	GC/FID	
Date Extracted:	N/A	11/12/07	,.,,,,
Date Analyzed:	11/14-15/07	11/12-13/07	
	1.72.1.1.1.2.1.3.1		



QC Sample Report - Volatile Hydrocarbons as Gasoline by GCMS

Matrix: Water

Batch Number: MS4TPHGW3841

Batch Accuracy Results

Spike Sample ID: Laboratory Co	ontrol San	nple		<u>A</u>	nalytical Notes:
Compound	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	
Gasoline	2.0	92	70 - 130	Pass	
					. <u>.</u>

Batch Precision Results

Compound	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail	
Sasoline						

MS: Matrix Spike

LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate



QC Sample Report - Extractable Hydrocarbons as Diesel by mod. EPA 8015B

Matrix: Water

Batch number: 8015DW4214

Batch Accuracy Results

oike Concentration	Sample covery	ecovery ptance Limits	/Fail
Compound ಸ್ಥ		% Re	Pass
Diesel 3	anna di ancidi a minara e na significa e c		

Batch Precision Results

MS/MSD Sample ID: Labora	atory Con	trol Samp	le			· [
Compound	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail	
Diesel	2.74	2.88	5%	25%	Pass	i

Analytical Notes:

MS: Matrix Spike

LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate



Client: SECOR

Project: Olson - San Lorenzo

Job No.: 30445 Matrix: Water Date Sampled:

Batch Number:

11/09/07

Date Received: 11/12/07
Date Analyzed: 11/14-15

11/14-15/07 MS48260W3841

Analyst: CMR

!! "	Sample ID:	Blank	MW-01-W	MW-02-W	MW-03-W	
Compounds	RL.	μg/L	μ g /L	μg/L	μg/L	
Acetone	50	ND	ND	ND	ND	
tert-Amyl Methyl Ether (TAN	ЛE) 1.0	ND	NĐ	ND	ND	
Benzene	0.5	ND	ND	ND	ND	
Bromobenzene	1.0	ND	ND	ND	ND	
Bromochloromethane	1.0	ND	ND	ND	ND	
Bromodichloromethane	0.5	ND	ND	ND	ND.	
Bromoform	0.5	ND	ND	ND	ND	
Bromomethane	2.0	ND	ND	ND	ND	
tert-Butanol (TBA)	10	ND	ND	ND	ND	ļ
2-Butanone (MEK)	10	ND	ND	ND	ND	
n-Butylbenzene	1.0	ND	ND	13	ND	
sec-Butylbenzene	0.5	ND	ND	10	ND	
tert-Butylbenzene	0.5	ND	ND	ND	ND	
Carbon disulfide	10	ND	ND	ND	ND	
Carbon tetrachloride	0.5	ND	ND	ND	ND	
Chlorobenzene	0.5	ND	ND.	ND	ND	
Chloroethane	0.5	ND	ND	ND	ND	
Chloroform	0.5	ND	ND	ND	ND	
Chloromethane	2.0	ND	ND	ND	ND	
2-Chlorotoluene	0.5	ND	ND	ND	ND	
4-Chlorotoluene	0.5	ND	ND	ND	ND	
Dibromochloromethane	0.5	ND .	ND :	ND	D	
1,2-Dibromoethane	0.5	ND	ND	ND	ND	
1,2-Dibromo-3-chloropropa	ne 10	ND	ND	ND	ND	
Dibromomethane	0.5	ND	ND	ND	ND	
1,2-Dichlorobenzene	0.5	ND	ND	ND	ND	
1,3-Dichlorobenzene	0.5	ND	ND	ND	ND	
1,4-Dichlorobenzene	0.5	ND	ND	ND	ND	
Dichlorodifluoromethane	0.5	ND	ND	ND	ND	
1,1-Dichloroethane	0.5	ND	ND	ND	ND	
1,2-Dichloroethane	0.5	ND	ND	ND	ND	
1,1-Dichloroethene	0.5	ND	ND	ND	ND	
cis-1,2-Dichloroethene	0.5	ND	ND	ND	ND	
trans-1,2-Dichloroethene	0.5	ND	ND	ND	ND	
1,2-Dichloropropane	0.5	ND	ND	ND	ND	
1,3-Dichloropropane	0.5	ND	ND	ND	ND	
2,2-Dichloropropane	0.5	ND	ND	ND	ND	
1,1-Dichloropropene	0.5	ND	D	ND	ND	



Client: SECOR

Project: Olson - San Lorenzo

Job No.: 30445 Matrix: Water Analyst: CMR Date Sampled:

11/09/07

Date Received:

11/12/07

Date Analyzed:

11/14-15/07

rix: Water Batch Number: MS48260W3841

	Sample ID:	Blank	MW-01-W	MW-02-W	MW-03-W
Compounds	RL	μ g/L	μ g/L	μg/L	μg/L
cis-1,3-Dichloropropene	0.5	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.5	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	1.0	ND	МD	ND	ND
Ethylbenzene	0.5	ND	D	ND	ND
Ethyl tert-Butyl Ether (EtBE)	1.0	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND
Isopropylbenzene	0.5	ND	ND	6.7	ND
p-Isopropyltoluene	0.5	ND	ND	ND	ND
Methylene chloride	50	ND	ND	ND	ND
4-Methyl-2-pentanone	5.0	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBl	E) 1.0	ND	ND	ND	ND
Naphthalene	0.5	ND	ND	0.8	ND
n-Propylbenzene	0.5	ND	ND	21	ND
Styrene	0.5	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.5	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	0.5	ND	ND	ND	ND
Toluene	0.5	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0,5	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.5	ND	ND	ND	ND
1,1,1-Trichlorcethane	0.5	ND	ND	ND	ND
1,1,2-Trichloroethane	0.5	ND	ND	ND	ND
Trichloroethene	0,5	ND	ДИ	ND	ND
1,2,3-Trichloropropane	0.5	ND	ND	ND	ND .
Trichlorofluoromethane	0.5	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.5	ND	ND	ND	ND
1,3,5-Trimethylbenzene	0.5	ND	ND	ND	ND
Vinyl chloride	0.5	ND	ND	DM	ND.
Xylenes, m-,p-	1.0	ND	ND	ND	ND
Xylene, o-	0.5	ND	ND	ND	ND

Surrogates III /6 INCLOVERY	(Acceptance rin	III(3. 70 - 100	701		
Samp	ole ID: Blank				
Dibromofluoromethane	112	112	111	112	
Toluene-d8	107	109	109	109	
	99				



QC Sample Report - Volatile Organic Compounds by EPA 8260B

Matrix: Water

Batch Number: MS48260W3841

Batch Accuracy Results

Spike Sample ID: Laboratory C	ontrol San	nple		
Compound	Spike Concentration (µg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
1,1-Dichloroethene	50	86	70 - 130	Pass
Benzene	50	116	70 - 130	Pass
Trichloroethene	50	105	70 - 130	Pass
Toluene	50	114	70 - 130	Pass
Chlorobenzene	50	99	70 - 130	Pass

Analytical Notes:	

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Compound	MS Sample Result (μg/L)	MSD Sample Result (μg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
1,1-Dichloroethene	43.15	42.84	1%	25%	Pass
Benzene	58.12	57.77	1%	25%	Pass
Trichloroethene	52.41	51.42	2%	25%	Pass
Toluene	56.96	56.15	1%	25%	Pass
Chlorobenzene	49.30	48.33	2%	25%	Pass

Analytical Notes:

MS: Matrix Spike

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LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate

Analytical aboratories, Inc.

Chain of Custody Record

Centrum Job # 30445

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	Fax: 951.779.0344	40.330			Fax: 562.498.8617	<u> </u>			Peas	e Cir	cle /	mal	yses	Reg	ues	ted			
Project No: O4OT. 29215.69 Project Manager: JASON ADELAARS Client Name: (Report and Stilling) SECOR		(Plaquet and Editing)				ed, or EPA 8015	138 GRO	on Chain (specify ranges) C6 - C22	7-97 Neg	8260B.) pr 624 BTEX/Oxygenetes <u>Only</u>	STEXOLYgenetes Office SZ70C, or 625	002: Peaticides, or PCBs, or PeatIPCB	Tibe 22 (CAM), or RCRA, or PP	Title 22 (CAM), or RCRA, or	TCLP, STLC	, 78	RPH), or 415.2, or 1884		Turn-Around Time ase note* 24 Hr. RUSH * 48 Hr. RUSH * Normal TAT Other * Requires PRIOR approval, additional charges apply Requested due date:
Contrain iD	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	LUFT Die	LINET	8021B:		Ö Ž	SVOCE	6081A/8082:	i i	Metals:	F 품	418.1 (TRPH),		Remarks/Special Instructions
1	MW-01-W	114	815	H ₂ O	SANLORUNO	3 UOA + ZAM		>	<u>√</u>		?		П						.:
2		ì	120	1	1	1		>	<u>(</u>		X								
3	MW-03-W	1	1015	7		7		>	4		X_	L			1	-	_		
																	-		
	<u></u>	_	<u> </u>								+	+-		+	+	-		+-	
	· ·		- 10					1	1			十		1	\dagger	1	T		
1) Relinquis	had by (Sampler's Signature)		tales	1000	3) Relinquished by:	ж.	Date	: 1	lme;	1		-	by La	_					Sample Disposal
2) Received	By.		Date:	Time:	4) Received by:		Date	: 1	ture:				Ten YX				om Fi	- 1	☐ Cilent will pick up ☐ Return to client
constitutes	of samples and the signature of authorization to perform the are not Conditions set forth on the b	dyses spe	cified above		5) Relinquished by: 6) Received for Laborat	tory by:	Date		ime: 1345	All sample containers intact? All Yes D No Lab disposal					175/00				
Laboratory	Notes:									Repo	ort For Paper (ARWC	eport	•	PDF n	port	Includ		(I address) (I EDD (I	(GISKEY) □ EDD (Other) * *with prior approved only