



Atlantic Richfield Company
(a BP affiliated company)

P.O. Box 1257
San Ramon, California 94583
Phone: (925) 275-3801
Fax: (925) 275-3815

15 December 2008

Re: Soil & Water Investigation Report with Private Well Status Update
Atlantic Richfield Company Station No.608
17601 Hesperian Boulevard
San Lorenzo, California
ACEH Case No.RO0000255

RECEIVED

2:48 pm, Dec 17, 2008

Alameda County
Environmental Health



"I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct."

Submitted by:

Paul Supple
Environmental Business Manager

**SOIL & WATER INVESTIGATION REPORT
WITH PRIVATE WELL STATUS UPDATE**

Atlantic Richfield Company Station No. 608
17601 Hesperian Boulevard
San Lorenzo, California
ACEH Case No. RO0000255

Prepared for:

Mr. Paul Supple
Environmental Business Manager
Atlantic Richfield Company
P.O. Box 1257
San Ramon, California 94583

Prepared by:



1324 Mangrove Ave., Suite 212
Chico, California 95926
(530) 566-1400
www.broadbentinc.com

15 December 2008

Project No. 06-08-606

15 December 2008

Project No. 06-08-606

Atlantic Richfield Company
P.O. Box 1257
San Ramon, CA 94583
Submitted via ENFOS

Attn.: Mr. Paul Supple

Re: Soil & Water Investigation Report with Private Well Status Update, Atlantic Richfield Company Station #608, 17601 Hesperian Boulevard, San Lorenzo, California;
ACEH Case #RO0000255

Dear Mr. Supple:

Broadbent & Associates, Inc. (BAI) is pleased to submit this *Soil & Water Investigation Report with Private Well Status Update* for Atlantic Richfield Company Station #608 (herein referred to as Station #608) located at 17601 Hesperian Boulevard, San Lorenzo, California (Site). This report presents a description of field activities conducted and results obtained from the advancement of two soil borings at the Site on 12 and 13 November 2008. A private well status update is also provided in this report. This work was conducted in accordance with the *Work Plan for Soil & Water Investigation* (BAI, 26 August 2008), as approved by Alameda County Environmental Health (ACEH) in their letter dated 24 September 2008.

Should you have questions or require additional information, please do not hesitate to contact us at (530) 566-1400.

Sincerely,
BROADBENT & ASSOCIATES, INC.



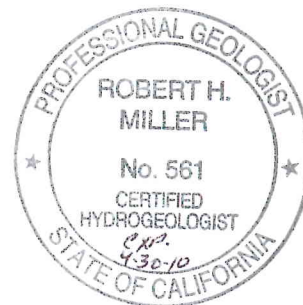
Thomas A. Venus, P.E.
Senior Engineer



Robert H. Miller, P.G., C.HG.
Principal Hydrogeologist

Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp site)
Electronic copy uploaded to GeoTracker



**SOIL & WATER INVESTIGATION REPORT
WITH PRIVATE WELL STATUS UPDATE**

Atlantic Richfield Company Station #608
17601 Hesperian Boulevard
San Lorenzo, California

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ATTACHMENTS

- Drawing 1 Site Vicinity Map
- Drawing 2 Site Layout Plan with Soil Boring Locations

APPENDICES

- Appendix A Recent Regulatory Correspondence
- Appendix B Stratus Soil Boring Data Package (Includes Field Data Sheets, Boring Logs, Drilling Permit, Site Plan, and Certified Laboratory Analytical Report with Chain-of-Custody Documentation)
- Appendix C GeoTracker Upload Confirmation
- Appendix D Copies of Private Well Status Inquiry Letters Sent with Certificates of Mailing
- Appendix E Returned Private Well Status Inquiry Letters

SOIL & WATER INVESTIGATION REPORT WITH PRIVATE WELL STATUS UPDATE

Atlantic Richfield Company Station #608
17601 Hesperian Boulevard
San Lorenzo, California

1.0 INTRODUCTION

On behalf of the Atlantic Richfield Company, RM – a BP affiliated company, Broadbent & Associates, Inc. (BAI) has prepared this Soil & Ground-Water Investigation Report with Private Well Status Update for additional soil and ground-water characterization at the Atlantic Richfield Company Station #608, located at 17601 Hesperian Boulevard, San Lorenzo, California (Site). This on-site soil investigation was completed to characterize residual hydrocarbon contamination within soils at the source area, and to determine the status of previously identified private wells in the area. Investigation activities were conducted in accordance with the BAI *Work Plan for Soil & Water Investigation* dated 26 August 2008, as approved with additional comments by the Alameda County Environmental Health (ACEH) in their response letter dated 24 September 2008. A copy of this letter is provided in Appendix A. This report includes discussions on the Site Background, Site Geology and Hydrogeology, Field Activities Performed, Results of the Investigation, Private Well Status, Conclusions and Recommendations.

2.0 SITE BACKGROUND

The Site is an active ARCO-brand retail gasoline service station located on the southwestern corner of Hesperian Boulevard and Hacienda Avenue in San Lorenzo, California (Drawing 1 and Drawing 2). The land use in the immediate vicinity of the Site is mixed commercial and residential. Development at the Site consists of a service station building and three 12,000-gallon gasoline underground storage tanks (USTs) with associated piping and dispensers, and one used oil tank. The Site is covered with asphalt or concrete surfacing except for planters along the property boundaries which contain shrubs and trees.

Numerous subsurface investigations and remedial activities have been conducted on-site since 1985. A comprehensive Site history can be found within the *Work Plan for Soil & Water Investigation* prepared by BAI dated 26 August 2008. Section 4.0 of this report details the most recent subsurface investigation field activities conducted as requested by ACEH.

3.0 SITE GEOLOGY AND HYDROGEOLOGY

According to the *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report* (California Regional Water Quality Control Board – San Francisco Bay Region/SFRWQCB, June 1999), the Site is located within the San Lorenzo Sub-Area, in the East Bay Plain of the San Francisco Basin. This Sub-Area is very similar in hydrogeologic characteristics with the San Leandro Sub-Area to the north, yet they are separated by the junction of the surface trace between the San Leandro and San Lorenzo alluvial fans. These Sub-Areas consist primarily of alluvial fan sediments with the distinction of the Yerba Buena Mud extending west into the San Leandro and San Lorenzo Sub-Areas, unlike the northern Sub-Areas. The Yerba Buena Mud forms a major aquitard between the shallow and deep aquifers throughout much of southwestern area of the East Bay Plain. The San Leandro and San Lorenzo Sub-Areas alluvial fans are finer grained and produce less groundwater than the Niles Cone basin to the south.

Throughout most of the Alameda County portion of the East Bay Plain, from Hayward north to Albany, water level contours show that the general direction of ground water flow is from east to west or from the Hayward Fault to the San Francisco Bay. Ground-water flow direction generally correlates to topography. Flow direction and velocity are also influenced by buried stream channels that typically are oriented in an east-west direction. In the San Lorenzo Sub-Area however, the direction of flow may not be this simple. According to information presented in *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*, the small set of water level measurements available seemed to show that the ground water in the upper aquifers may be flowing south, with the deeper aquifers, the Alameda Formation, moving north. The nearest surface water drainage is the San Lorenzo Creek flowing generally east to west, located approximately 4,100 feet north of the Site.

The Site elevation is approximately 34 feet above mean sea level. The water table fluctuates seasonally. Historically, depth-to-water measurements have ranged between approximately seven to 12 feet below ground surface (ft bgs). Ground-water flow direction during the third quarter monitoring event on 2 September 2008 was to the west at a horizontal gradient of 0.004 ft/ft.

According to the *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*, the majority of East Bay Plain Cities (except the City of Hayward) do not have “any plans to develop local ground-water resources for drinking water purposes, because of existing or potential saltwater intrusion, contamination, or poor or limited quantity.” The SFRWQCB’s basin plan denotes existing beneficial uses of municipal and domestic supply (MUN), industrial process supply (PROC), industrial service supply (IND), and agricultural supply (AGR) for the East Bay Plain ground-water basin.

Soils encountered underlying the Site consisted primarily of surficial clays and silts to a depth of approximately 11 feet bgs. Clayey sand, silty sand, and sand deposits ranging in thickness from 0.5 feet to four feet were noted in most borings between the approximate depths of four to 15 feet bgs, underlain by clays to the total depth explored (22.5 feet bgs). The relatively coarser-grained deposits may represent channel deposits and apparently trend in an east-west direction, increasing in thickness from north to south.

4.0 FIELD ACTIVITIES PERFORMED

The onsite soil and water investigation was completed to assess the presence of residual petroleum hydrocarbon-impacted soil and ground water on-site in the vicinity of the UST complex and the former waste oil tank. On 12 and 13 November 2008, Stratus oversaw RSI Drilling, Inc. advance two direct-push soil borings (identified as B-1 and B-2) at the Site. Soil boring B-1 was located in the general vicinity of the previously collected soil sample WOS-SW, approximately seven feet north and 18 feet west of the southwest corner of the station building, near the location of the waste oil UST. Soil boring B-2 was located in the general vicinity of previously collected soil sample ST-7. This location should have placed the boring approximately ten feet north of the existing UST complex and previous soil sample ST-7 (as close as could be allowed according to Atlantic Richfield Company safety protocol). The soil boring locations from this investigation are shown in Drawing 2.

4.1 Preliminary Field Activities

Prior to initiating field activities, Stratus obtained the necessary well drilling permits from the Alameda County Public Works Agency (See Appendix B), prepared a site health and safety plan specific to the work scope; and cleared the Site for subsurface utilities. The utility clearance included notifying Underground Service Alert of the work a minimum of 48 hours prior to initiating the field investigation, and additionally securing the services of Cruz Brothers, a private utility locating company to confirm the absence of underground utilities at the boring location. Boreholes were physically cleared to five feet below ground surface (bgs) using an air and water knife rig.

4.2 Soil Boring Advancement and Sampling

On 12 and 13 November 2008, Stratus field personnel observed RSI Drilling (RSI) of Woodland, California advance two soil borings (B-1 and B-2). RSI utilized a direct-push Geoprobe GH-40 drill rig to collect continuous core samples at the soil boring locations to a maximum depth of 25 ft bgs. Physical soil samples were collected at specific depths for laboratory analysis based on field observations and recommendations from ACEH.

Soil boring B-1 was advanced to a total depth of 25 ft bgs. Soil samples were collected from boring B-1 at 6, 9, 12, 15, 18 and 21.5 ft bgs. Reportedly, no obvious visual contamination was observed. Screening with the photo-ionization detector (PID) found no evidence of contamination by volatile organic compounds. Silty clay was observed from approximately five to 9.5 ft bgs and 17 to 23 ft bgs. Sandy clays were encountered from approximately 9.5 to 13.5 ft bgs. Clay was observed from approximately 13.5 to 17 ft bgs. Clayey sand was observed between approximately 23 and 25 ft bgs, the total depth explored to. Following completion of soil boring advancement and collection of samples, the boring was backfilled with neat cement grout to surface grade.

Soil boring B-2 was advanced to a total depth of 24 ft bgs. Soil samples were collected from boring B-2 at 7.5, 10.5, 14.5, 16, 19, and 23 ft bgs. Reportedly, no obvious visual contamination was observed. Screening with the PID found no evidence of contamination by volatile organic compounds. Sandy clay was observed between approximately five and 7.5 ft bgs. Silty clay was encountered from approximately eight to 16 ft bgs and 18.5 to 20 ft bgs. Clay was observed from approximately 16 to 18.5 ft bgs and 20 to 22.5 ft bgs. Clayey sand was encountered from approximately 22.5 to 24 ft bgs, the total depth explored to. Following completion of soil boring advancement and collection of samples, the boring was backfilled with neat cement grout to surface grade.

4.3 Ground-Water Sampling

Grab ground-water samples were collected from borings B-1 and B-2, as requested by ACEH, to further assess potential hydrocarbon contamination on-site. RSI utilized a temporary Poly-Vinyl Chloride (PVC) casing, which included a screened interval within the bottom five feet, to collect the water samples. The casing was lowered to the total depth of each boring and ground water

was allowed to infiltrate into the screened interval. A disposable bailer was then lowered through the casing into the screened section for sample collection.

A depth to ground-water measurement was taken at nearby well MW-25 prior to drilling activities in order to establish a baseline water level to assist in determining the necessary total depth of the borings that would allow for proper ground-water sample collection. Based on the depth to ground-water measurement of 11.72 ft bgs at well MW-25, total boring depths were anticipated between approximately 12 and 15 ft bgs. However, the first attempt to collect a ground-water sample from boring B-1 was unsuccessful between 15 and 20 ft bgs. Ground water did not accumulate within the screened interval after 30 minutes had elapsed. The total boring depth was then increased to 25 ft bgs and a ground-water sample was successfully collected utilizing an open screen interval between 20 and 25 ft bgs. The ground-water sample collected from boring B-2 utilized an open screen interval between 19 and the total boring depth of 24 ft bgs. Sufficient ground water accumulated within boring B-2 for sample collection after 20 minutes had elapsed.

4.4 Investigation-Derived Residuals Management

Residual solids and liquids generated during the Site investigation activities were stored temporarily onsite in a Department of Transportation-approved 55-gallon drum pending analytical results and profiling. Following characterization and profiling, Belshire Environmental Services was scheduled to transport the investigation-derived residuals to an Atlantic Richfield Company-approved facility for treatment or disposal.

5.0 RESULTS OF INVESTIGATION

Soil and ground-water samples were shipped to Calscience Environmental Laboratories, Inc. (Garden Grove), a California State-certified laboratory, under chain-of-custody protocol. Samples were analyzed for Gasoline Range Organics (GRO, hydrocarbon chain lengths between C6-C12) by EPA Method 8015B; and for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX), Methyl Tert-Butyl Ether (MTBE), Ethyl Tert-Butyl Ether (ETBE), Tert-Amyl Methyl Ether (TAME), Di-Isopropyl Ether (DIPE), 1,2-Dichloroethane (1,2-DCA), 1,2-Dibromoethane (EDB), Tert-Butyl Alcohol (TBA), and Ethanol using EPA Method 8260B. Based on the apparent absence of contamination from visual observation and PID screening, it was proposed in an email to ACEH to deviate from the work plan and hold approximately half of the soil samples collected from initial analysis. Samples from approximately three-foot intervals were analyzed versus 1.5-foot intervals specified within the approved work plan. ACEH did not notify BAI that this deviation was unacceptable. No significant irregularities were encountered during laboratory analysis of the samples. A copy of the laboratory analytical report, including chain-of-custody documentation, is provided in Appendix B.

The analytes were not detected above their respective reporting limits in the twelve soil samples collected with the exception of GRO, which was detected above the laboratory reporting limit (0.50 milligrams per kilogram, mg/kg) in soil sample B-2-14.5 at a concentration of 0.58 mg/kg. The analytes were not detected above their respective reporting limits in the two ground-water samples collected during this investigation. A copy of the laboratory analytical report with

chain-of-custody documentation is provided in Appendix B. Laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation pages are provided in Appendix C.

6.0 PRIVATE WELL STATUS

In an attempt to further assess the ground-water quality of private wells 634H, 642H, 17302VM, 17348VE, and 17372VM, a survey letter was sent to each property owner regarding the functionality of their wells. Letters including self-addressed stamped envelopes were sent with a certificate of mailing on 5 November 2008. Copies of these inquiry letters and certificates of mailing are provided in Appendix D. Completed surveys were received from the property owners of wells 17302VM and 17372VM. The survey letter returned from the property owners of well 17302VM indicates that a water supply well is currently located at 17302 Via Magdalena but is no longer functional. The survey letter returned from the property owners of well 17372VM indicates that a water supply well is not currently located at 17372 Via Magdalena. Copies of the returned letters are provided in Appendix E.

7.0 CONCLUSIONS

On behalf of the Atlantic Richfield Company, RM – a BP affiliated company, BAI prepared this Soil & Water Investigation Report with Private Well Status Report for Station No.608, located at 17601 Hesperian Boulevard, Oakland, California. Investigation activities were conducted in accordance with the BAI *Work Plan for Soil & Water Investigation* dated 26 August 2008, as approved with comments by the ACEH in their letter dated 24 September 2008. Based on the findings of this investigation, BAI concludes the following:

- No petroleum hydrocarbons were detected in soil samples collected at 6, 9, 12, 15, 18, and 21.5 ft bgs from boring B-1, in the vicinity of previous soil sample WOW-SW (14 June 1988) which had contained Total Oil and Grease at 13,000 mg/kg.
- GRO was detected above the laboratory reporting limit at a concentration of 0.58 mg/kg in the soil sample collected from boring B-2 at 14.5 ft bgs (B-2-14.5). No other petroleum hydrocarbon constituents were detected in soil samples collected at 7.5, 10.5, 14.5, 16, 19, and 23 ft bgs from boring B-2, in the vicinity of previous soil sample ST-7 (19 June 2001) which had contained Total Purgeable Petroleum Hydrocarbons at 210 mg/kg and MTBE at 21 mg/kg.
- No petroleum hydrocarbons were detected in the ground-water samples collected from borings B-1 and B-2.
- Private well 17302 VM has been identified by the property owner as no longer functional. Private well 17372 VM has been identified by the property owner as no longer in existence. No responses were received regarding the status of private wells 634H, 642H, and 17348VE.

8.0 RECOMMENDATIONS

Based on the analytical results obtained during the soil and water investigation, progression towards case closure should proceed.

9.0 CLOSURE

This document has been prepared for the exclusive use of Atlantic Richfield Company. The findings presented in this report are based upon the observations of Stratus field personnel, points of investigation and results of laboratory tests performed by Calscience Environmental Laboratories, Inc. (Garden Grove, California). Services were performed in accordance with the generally accepted standard of practice at the time this report was written. No warranty, expressed or implied, is intended. It is possible that variations in the soil or groundwater conditions could exist beyond the points explored in this investigation. Also, changes in site conditions could occur at some time in the future due to variations in rainfall, temperature, regional water usage or other factors.

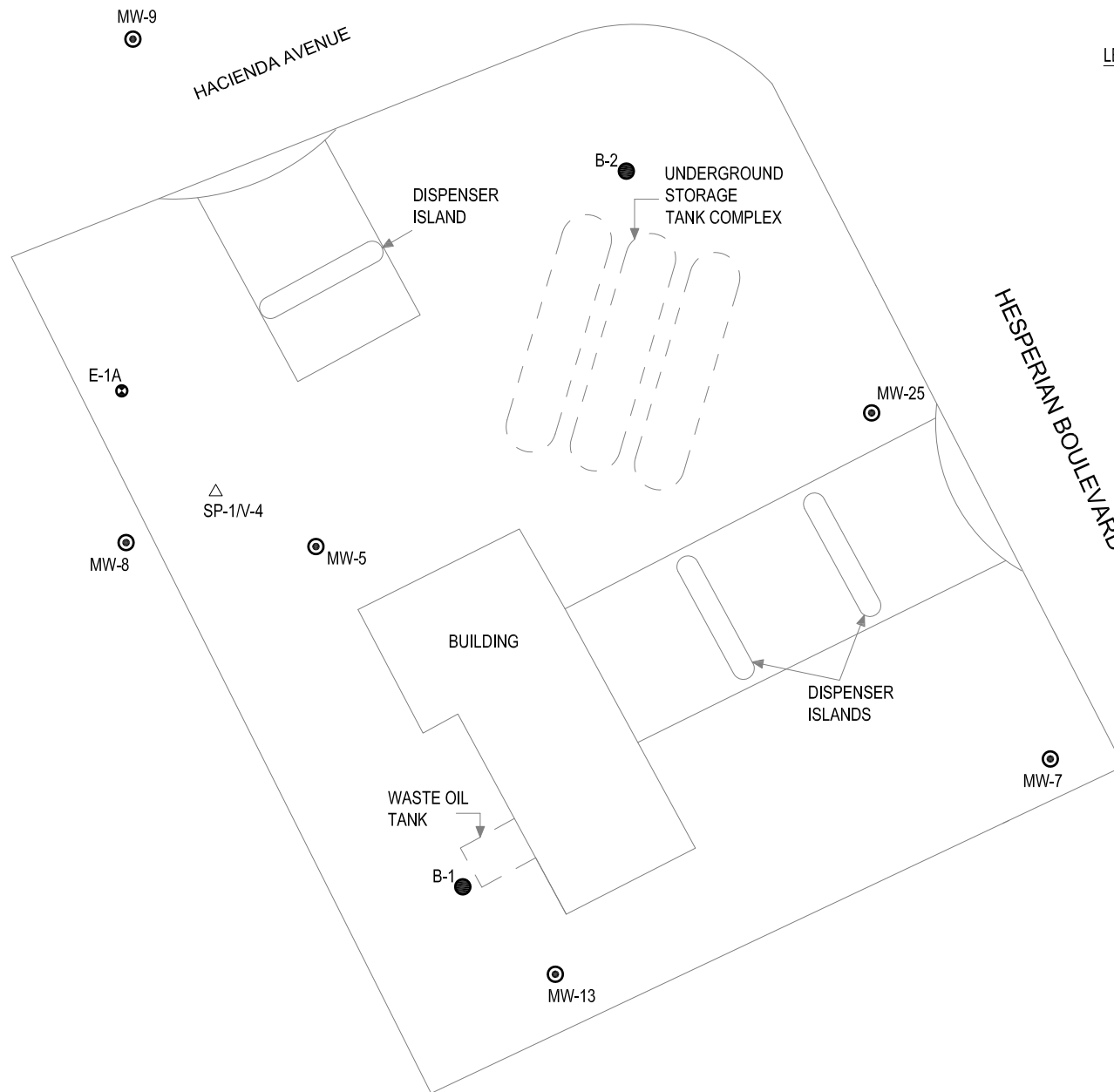
10.0 REFERENCES

ACEH, 27 June 2008. Fuel Leak Case No. RO 0000392 and GeoTracker Global ID T0600100114, ARCO #02185, 9800 International Blvd., Oakland, CA 94603. Letter from Mr. Paresh Khatri (ACEH) to Mr. Paul Supple (Atlantic Richfield Company) approving work plan.

ACEH, 24 September 2008. Fuel Leak Case No. RO 0000392 and GeoTracker Global ID T0600100114, ARCO #02185, 9800 International Blvd., Oakland, CA 94603. Letter from Mr. Paresh Khatri (ACEH) to Mr. Paul Supple (Atlantic Richfield Company) approving work plan.

Broadbent & Associates, Inc., 26 August 2008. Work Plan for Soil & Water Investigation, Atlantic Richfield Company Station No. 2185, 9800 International Blvd., Oakland, CA, ACEH Case No. RO0000392.

California Regional Water Quality Control Board, San Francisco Bay Region, Groundwater Committee, June 1999. *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda County and Contra Costa Counties, CA.*

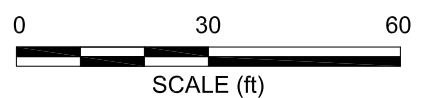


LEGEND

- ⊙ GROUND-WATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/
SOIL VAPOR EXTRACTION WELL
- SOIL BORING
- ⊕ GROUND-WATER EXTRACTION WELL



NOTE: SITE MAP ADAPTED FROM IT CORPORATION FIGURES.
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



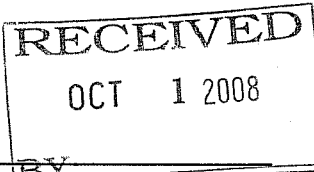
BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926
Project No.: 06-08-606 Date: 8/25/08

ARCO Service Station #608
17601 Hesperian Boulevard
San Lorenzo, California

Site Layout Plan with
Soil Boring Locations

APPENDIX A

RECENT REGULATORY CORRESPONDENCE



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 24, 2008

Paul Supple
Atlantic Richfield Company
(A BP Affiliated Company)
P.O. Box 1257
San Ramon, CA 94583

Subject: Fuel Leak Case No. RO0000255 and Geotracker Global ID T0600100085,
ARCO # 00608, 17607 Hesperian Boulevard, San Lorenzo, CA 94580

Dear Mr. Supple:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the recently submitted document entitled, "Work Plan for Soil and Water Investigation," dated August 26, 2008, which was prepared by Broadbent & Associates, Inc. (BAI) for the subject site. ACEH requested source area characterization of the former UST complex and the waste oil tank pit, and to provide a status of the previously impacted and/or identified private wells in the vicinity of the site. According to BAI, the south side of the former UST complex had been characterized in a subsurface investigation conducted on March 10, 1993 by Pacific Environmental Group. Therefore, BAI proposes to characterize the north side of the former UST complex, the former waste oil UST area, and attempt to sample the operational private wells if access is allowed by the property owners.

ACEH generally concurs with the proposed scope of work and the proposed scope of work may be implemented provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation. Submittal of a revised Work Plan is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed.

We request that you address the following technical comments, perform the proposed work, and send us the technical reports requested below.

TECHNICAL COMMENTS

1. **Source Area Characterization** – Two borings are proposed, one on the north side of the former UST complex and another in the vicinity of the former waste oil UST. BAI proposes to gauge existing onsite monitoring wells to determine depth to water and collect soil samples at 1.5 foot intervals until groundwater is encountered. Since the existing monitoring well MW-13 is approximately 20 feet cross-gradient from proposed boring B-1 and existing monitoring well MW-25 in the northern part of the site is approximately 60 feet cross-gradient from proposed boring B-2, please collect "grab" groundwater samples in addition to the proposed soil samples. Please analyze the groundwater samples for the same analyses proposed for the soil samples. Please submit a soil and groundwater investigation report due by the date specified below.

NOTIFICATION OF FIELDWORK ACTIVITIES

Please schedule and complete the fieldwork activities by the date specified below and provide ACEH with at least three (3) business days notification prior to conducting the fieldwork.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Paresh Khatri), according to the following schedule:

- **December 23, 2008** – Soil and Water Investigation Report (Including Status of Private Wells)
- **October 30, 2008** - Quarterly Monitoring Report (3rd Quarter 2008)
- **April 30, 2009** - Quarterly Monitoring Report (1st Quarter 2009)

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover

letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

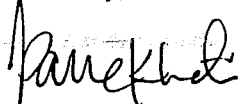
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

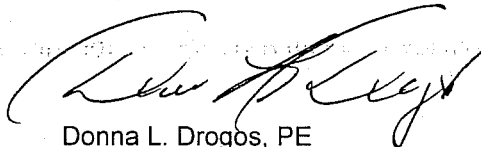
If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 777-2478 or send me an electronic mail message at paresh.khatri@acgov.org.

Sincerely,



Paresh C. Khatri
Hazardous Materials Specialist



Donna L. Drogos, PE
Supervising Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Tom Venus, Broadbent & Associates, Inc., 1324 Mangrove Ave., Ste 212, Chico, CA 95926
Donna Drogos, ACEH
Paresh Khatri, ACEH
File

APPENDIX B

STRATUS SOIL BORING DATA PACKAGE

(Includes Field Data Sheets, Boring Logs, Drilling Permit, Site Plan, and Certified Laboratory Analytical Report with Chain-of-Custody Documentation)



3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

November 25, 2008

Mr. Tom Venus
Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926

Re: Soil Boring Data Package, ARCO Service Station No. 608, located at 17601 Hesperian Boulevard, San Lorenzo, California.

General Information

Data Submittal Prepared / Reviewed by: Scott Bittinger / Jay Johnson
Phone Number: (530) 676-6000

On-Site Supplier Representative: Collin Fischer

Date: October 17, 2008

Arrival: 10:45 *Departure:* 12:45

Weather Conditions: Not Noted

Scope of Work Performed: Health and safety meeting with utility locating contractor. Checked for the presence of underground utilities in the vicinity of the proposed work areas. Marked drilling locations for Underground Service Alert clearance.

Unusual Field Conditions: None noted.

Variations from Work Scope: None noted.

On-Site Supplier Representative: Scott Bittinger

Date: November 12, 2008

Arrival: 11:40 *Departure:* 15:25

Weather Conditions: Sunny, clear

Scope of Work Performed: Health and safety meeting with RSI Drilling, Inc. Air knife/water knife 2 boreholes from surface grade to 5 feet bgs. Measured depth to water level in one monitoring well, as requested by scoping contractor (well MW-25, 11.72 feet below top of well casing).

Unusual Field Conditions: None noted.

Variations from Work Scope: None noted.

On-Site Supplier Representative: Scott Bittinger and Josh Slater

Date: November 13, 2008

Arrival: 11:00 *Departure:* 15:50

Weather Conditions: Sunny and clear

Scope of Work Performed: Health and safety meeting with RSI Drilling, Inc. Advance 2 direct push soil borings to depths of 25 feet bgs and 24 feet bgs. Collected groundwater samples from both borings.

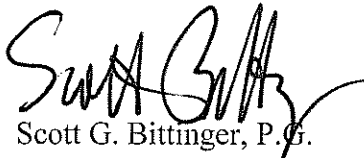
Unusual Field Conditions: Although static groundwater was measured at 11.72 feet bgs at well MW-25, a groundwater sampling attempt between the depths of 15 and 20 feet bgs was unsuccessful at boring B-1.

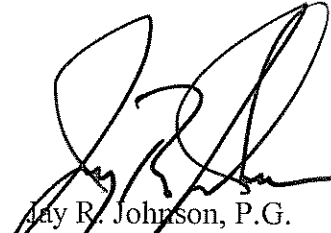
Variations from Work Scope: Boreholes extended from the 12 foot depth proposed by scoping contractor to depths of 25 feet bgs (boring B-1) and 24 feet bgs (boring B-2) to allow for collection of groundwater sample.


This submittal presents data collected in association with the advancement of two soil borings. The attachments include the field data sheets, boring logs, drilling permit, site plan, and certified analytical results. The information is being provided to BP-ARCO's Scoping Supplier for use in preparing a report for regulatory submittal. This submittal is limited to presentation of collected data and does not include data interpretations or conclusions or recommendations.

Sincerely,

STRATUS ENVIRONMENTAL, INC.


Scott G. Bittinger, P.G.
Project Manager


Jay R. Johnson, P.G.
Senior Project Supervisor



Attachments:

- Field Data Sheets
- Soil Boring Logs
- Drilling Permit
- Site Plan
- Certified Analytical Results

CC: Mr. Paul Supple, BP/ARCO

ARLO 602 - Carlos Enrique

10/12/08

Sunny
Clear

1045 → ONSITE, WALKING FOR CRASH TOLS

1115 → CRASH TOLS ARRIVE, STARTS MARKING

1130 → CLEAR TWO BOXING LOCATIONS & TRACE
OUT UTILITIES LINES. B-2 IS INSIDE TARGET AREA,

1200 → MARK FOR USA.

Checked appropriate location in case.

1245 → OFFSITE

USA TICKET # ~~556~~ 113
EXP 11/18/08

STATIS ENJO, INC.

Arco 608
Sunny, 65°

11-12-08

Onsite 11:40. Check in with Station operator & Smog shop operator. HHS meeting w/ Contractor (arrives at 11:50).

Setup at B-1 location, near smog shop entrance & waste oil tank location. Begin air knifing at 12:40.

Per Smogging contractor request, measured depth to water beneath the site: 11.72' below T.O.C. at MW-25.

Air knifing progresses slowly due to high clay content of soils; switch to water knifing at 1:30 p.m.

Water knifing goes quickly, finish hole to 5'4" at 1:45 p.m.

Move to B-2 after tearing down equipment. Begin B-2 at 2:05 p.m. and reach 5' base at 2:35 p.m.

Both borings back filled & temporary patched.

Offsite 3:25

Scott Buttz

Arco 608, San Lorenzo

11-13-08

Onsite 11:00 w/ RSE drilling & Josh Slater of Stratus
Sunny, 70° HA Smecting.

Setup pay B-1 at 11:20 for sampling.

Paul from Arco onsite at 11:50. Paul notices that "slimy water"
is accumulating in secondary confinement of water treatment system.
Asks to find solution.

Attempted water sample w/ screen situated from 15'-20'. Pipe set open to
formation for 30 minutes or so w/ no ~~contact~~ water. Go deeper.
Successful at collecting water sample between 20 & 25'

Paul Sampled offsite 13:20

Begin B-2 at 13:45. Advance to 24' & wait 20 minutes
for water. Collected water sample, screen from 19'-24'

2 drums of water / soil mixture left onsite.

off site 15:50

Scott Buttz

SOIL BORING LOG

Boring No. B-1

Sheet: 1 of 2

Client	ARCO 608	Date	November 13, 2008
Address	17601 Hesperian Boulevard	Drilling Co.	RSI rig type: Geoprobe GH-40
	San Leandro, CA	Driller	Juan Morales
Project No.	E608	Method	Direct Push borehole diameter: 3"
Logged By:	Scott Bittinger	Sampler:	Acetate Liner
Well Pack	grout: 25 ft. to 0 ft.		

Sample		Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
Type	No.		Time	Recov.					
						1		Airknife to 5' bgs through clayey soils.	
						2	CL		
						3			
						4			
						5			
S	B1-6					6	CL	SILTY CLAY, olive brown, 1-2% very fine grained sand, dry, stiff (5' to 9.5')	0
						7			
S	B1-7.5					8			0
						9	CL	SANDY CLAY with SILT (9.5'-13.5'), dark yellowish brown, estimate 60% clay, 25% very fine grained sand, 10% silt, dry 9.5' to 12.5', moist 12.5' to 13.5', stiff	0
S	B1-9					10			
						11			0
S	B1-10.5					12			
						13			0
S	B1-12					14			
						15	CL	CLAY 13.5'-17', light olive brown, trace silt, 0 to 10% very fine grained sand, dry to moist, soft to medium stiff	0
S	B1-13.5					16			
						17			0
S	B1-15					18			
						19	CL	SILTY CLAY, light olive brown, estimate 85% clay, 15% silt, moist to dry (17'-23')	0
S	B1-16.5					20			
									0

Recovery _____
Sample _____

Comments: total depth = 25'
Water sampling attempt with sampler exposed between 15' & 20' bgs was unsuccessful.



SOIL BORING LOG

Boring No. B-2

Sheet: 1 of 2

Client	ARCO 608	Date	November 13, 2008
Address	17601 Hesperian Boulevard	Drilling Co.	RSI rig type: Geoprobe GH-40
	San Leandro, CA	Driller	Juan Morales
Project No.	E608	Method	Direct Push borehole diameter: 3"
Logged By:	Scott Bittinger	Sampler:	Acetate Liner
Well Pack	grout: 24 ft. to 0 ft.		

Type	Sample		Blow Count	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
	No.	Time						
					1		Airknife to 5' bgs through clayey soils.	
					2	CL		
					3			
					4			
					5	CL		
S	B2-6				6		SANDY CLAY with SILT, light olive brown (5' to 7.5'), olive gray 7.5' to 8', estimate 75% clay, 15% fine grained sand, 10% silt, moist	0
					7			
S	B2-7.5				8	CL		0
					9		SILTY CLAY (8'-11.5'), dark yellowish brown with orange iron oxide stains, dry to moist, stiff	
S	B2-9				10			0
					11			
S	B2-10.5				12	CL		0
					13		SILTY CLAY (11.5'-16'), grayish black, dry, stiff	
					14			
S	B2-14.5				15			0
					16			
S	B2-16				17	CL		0
					18		CLAY (16'-18.5'), light olive brown, trace silt, moist, medium stiff	
S	B2-17.5				19			0
					20	CL		
S	B2-19						SILTY CLAY (18.5'-20'), light olive brown, estimate 60% clay, 40% silt, dry	0

Recovery _____
Sample _____

Comments: total depth = 24'



Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 10/22/2008 By jamesy

Permit Numbers: W2008-0806
Permits Valid from 11/12/2008 to 11/13/2008

Application Id: 1224520576180	City of Project Site: San Lorenzo
Site Location: 17601 Hesperian Blvd, San Lorenzo, CA	Completion Date: 11/13/2008
Project Start Date: 11/12/2008	
Requested Inspection: 11/12/2008	
Scheduled Inspection: 11/12/2008 at 12:00 PM (Contact your inspector, Ron Smalley at (510) 670-5407, to confirm.)	

Applicant:	STRATUS ENVIRONMENTAL - Scott Bittinger 3330 Cameron Park Dr #550, Cameron Park, CA 95682	Phone: 530-676-2062
Property Owner:	BP/ ARCO 6 Centerpointe Drive, La Palma, CA 90623	Phone: 925-275-3801
Client:	** same as Property Owner **	

	Total Due:	\$230.00
Receipt Number: WR2008-0380	Total Amount Paid:	\$230.00
Payer Name : Stratus Environmental Inc.	Paid By: CHECK	PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Geotechnical Study/CPT's - 2 Boreholes
Driller: RSI Drilling - Lic #: 802334 - Method: other

Work Total: \$230.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2008-0806	10/22/2008	02/10/2009	2	3.00 in.	20.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
5. Applicant shall contact Ron Smalley for an inspection time at 510-670-5407 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

Alameda County Public Works Agency - Water Resources Well Permit

6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

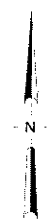
7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

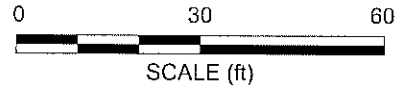


LEGEND

- ⊙ GROUND-WATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/
SOIL VAPOR EXTRACTION WELL
- PROPOSED SOIL BORING
- ⊕ GROUND-WATER EXTRACTION WELL



NOTE: SITE MAP ADAPTED FROM IT CORPORATION FIGURES.
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



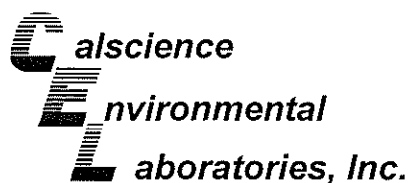
BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926
Project No.: 06-08-606 Date: 8/25/08

ARCO Service Station #608
17601 Hesperian Boulevard
San Lorenzo, California

Site Layout Plan with
Soil Boring Locations

Drawing

2



November 21, 2008

Jay Johnson
Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Subject: **Calscience Work Order No.: 08-11-1328**
Client Reference: **ARCO Station 608**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 11/14/2008 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

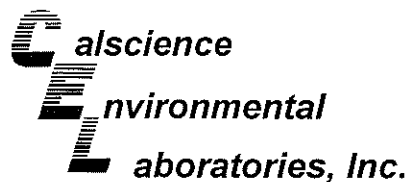
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Villafania".

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

A handwritten signature in black ink, appearing to read "Richard Villafania".



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 3050B
Method: EPA 6010B

Project: ARCO Station 608

Page 1 of 1

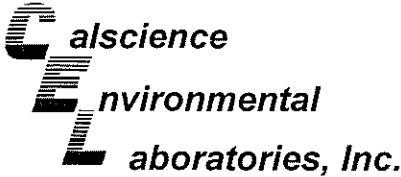
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Waste Composite	08-11-1328-2-A	11/13/08 13:13	Solid	ICP 5300	11/20/08	11/20/08 18:12	081120L01

Parameter	Result	RL	DF	Qual	Units
Lead	4.89	0.500	1		mg/kg

Method Blank	097-01-002-11,743	N/A	Solid	ICP 5300	11/20/08	11/20/08 17:54	081120L01
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Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report

11/19/08

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO Station 608

Page 1 of 1

Table with 8 columns: Client Sample Number, Lab Sample Number, Date/Time Collected, Matrix, Instrument, Date Prepared, Date/Time Analyzed, QC Batch ID. Row 1: B-1-W, 08-11-1328-1-D, 11/13/08 13:10, Aqueous, GC 4, 11/19/08, 11/20/08 16:22, 081119B02

Table with 6 columns: Parameter, Result, RL, DF, Qual, Units. Row 1: Gasoline Range Organics (C6-C12), ND, 50, 1, , ug/L

Table with 4 columns: Surrogates, REC (%), Control Limits, Qual. Row 1: 1,4-Bromofluorobenzene, 81, 38-134,

Table with 8 columns: Client Sample Number, Lab Sample Number, Date/Time Collected, Matrix, Instrument, Date Prepared, Date/Time Analyzed, QC Batch ID. Row 1: B-2-W, 08-11-1328-25-D, 11/13/08 14:55, Aqueous, GC 4, 11/19/08, 11/20/08 16:55, 081119B02

Table with 6 columns: Parameter, Result, RL, DF, Qual, Units. Row 1: Gasoline Range Organics (C6-C12), ND, 50, 1, , ug/L

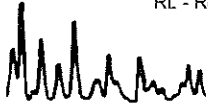
Table with 4 columns: Surrogates, REC (%), Control Limits, Qual. Row 1: 1,4-Bromofluorobenzene, 74, 38-134,

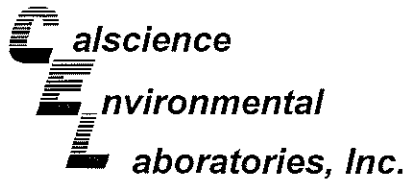
Table with 8 columns: Client Sample Number, Lab Sample Number, Date/Time Collected, Matrix, Instrument, Date Prepared, Date/Time Analyzed, QC Batch ID. Row 1: Method Blank, 099-12-695-338, N/A, Aqueous, GC 4, 11/19/08, 11/20/08 11:24, 081119B02

Table with 6 columns: Parameter, Result, RL, DF, Qual, Units. Row 1: Gasoline Range Organics (C6-C12), ND, 50, 1, , ug/L

Table with 4 columns: Surrogates, REC (%), Control Limits, Qual. Row 1: 1,4-Bromofluorobenzene, 72, 38-134,

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO Station 608

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Waste Composite	08-11-1328-2-A	11/13/08 13:13	Solid	GC 1	11/15/08	11/18/08 22:44	081118B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	75	42-126			

B-1-6	08-11-1328-3-A	11/13/08 11:35	Solid	GC 1	11/15/08	11/18/08 23:16	081118B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	76	42-126			

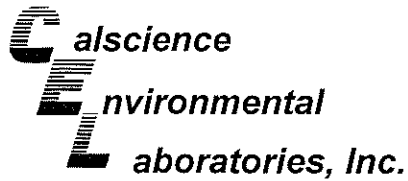
B-1-9	08-11-1328-5-A	11/13/08 11:42	Solid	GC 1	11/15/08	11/18/08 23:48	081118B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	75	42-126			

B-1-12	08-11-1328-7-A	11/13/08 11:50	Solid	GC 1	11/15/08	11/19/08 00:20	081118B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	75	42-126			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO Station 608

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-15	08-11-1328-9-A	11/13/08 12:00	Solid	GC 1	11/15/08	11/19/08 01:55	081118B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	53	42-126			

B-1-18	08-11-1328-11-A	11/13/08 12:11	Solid	GC 1	11/15/08	11/19/08 02:27	081118B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	74	42-126			

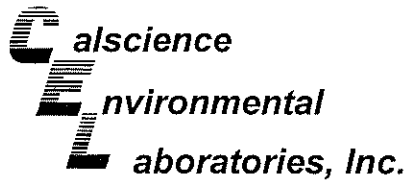
B-1-21.5	08-11-1328-13-A	11/13/08 12:32	Solid	GC 1	11/15/08	11/19/08 02:59	081118B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	75	42-126			

B-2-7.5	08-11-1328-16-A	11/13/08 13:57	Solid	GC 1	11/15/08	11/19/08 03:31	081118B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	75	42-126			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO Station 608

Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-10.5	08-11-1328-18-A	11/13/08 14:12	Solid	GC 1	11/15/08	11/19/08 04:02	081118B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	75	42-126			

B-2-14.5	08-11-1328-19-A	11/13/08 14:17	Solid	GC 1	11/15/08	11/19/08 04:34	081118B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	0.58	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	79	42-126			

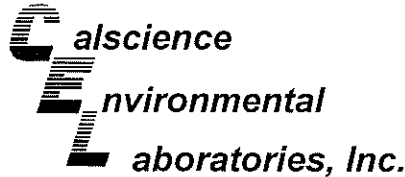
B-2-16	08-11-1328-20-A	11/13/08 14:25	Solid	GC 1	11/15/08	11/19/08 05:06	081118B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	74	42-126			

B-2-19	08-11-1328-22-A	11/13/08 14:35	Solid	GC 1	11/15/08	11/19/08 10:56	081118B02
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	75	42-126			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO Station 608

Page 4 of 4

Table with 8 columns: Client Sample Number, Lab Sample Number, Date/Time Collected, Matrix, Instrument, Date Prepared, Date/Time Analyzed, QC Batch ID. Row 1: B-2-23, 08-11-1328-24-A, 11/13/08 14:45, Solid, GC 1, 11/15/08, 11/19/08 05:38, 081118B01

Table with 6 columns: Parameter, Result, RL, DF, Qual, Units. Row 1: Gasoline Range Organics (C6-C12), ND, 0.50, 1, , mg/kg

Table with 4 columns: Surrogates, REC (%), Control Limits, Qual. Row 1: 1,4-Bromofluorobenzene, 75, 42-126,

Table with 8 columns: Method Blank, 099-12-697-50, N/A, Solid, GC 1, 11/18/08, 11/18/08 16:54, 081118B01

Table with 6 columns: Parameter, Result, RL, DF, Qual, Units. Row 1: Gasoline Range Organics (C6-C12), ND, 0.50, 1, , mg/kg

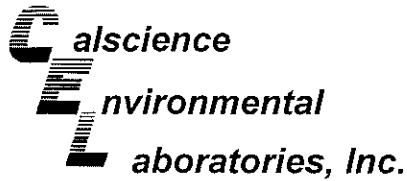
Table with 4 columns: Surrogates, REC (%), Control Limits, Qual. Row 1: 1,4-Bromofluorobenzene, 76, 42-126,

Table with 8 columns: Method Blank, 099-12-697-51, N/A, Solid, GC 1, 11/18/08, 11/19/08 08:49, 081118B02

Table with 6 columns: Parameter, Result, RL, DF, Qual, Units. Row 1: Gasoline Range Organics (C6-C12), ND, 0.50, 1, , mg/kg

Table with 4 columns: Surrogates, REC (%), Control Limits, Qual. Row 1: 1,4-Bromofluorobenzene, 76, 42-126,

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: ARCO Station 608

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-W	08-11-1328-1-A	11/13/08 13:10	Aqueous	GC/MS BB	11/18/08	11/18/08 18:43	081118L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	112	73-157			Dibromofluoromethane	99	82-142		
Toluene-d8	100	82-112			1,4-Bromofluorobenzene	96	75-105		

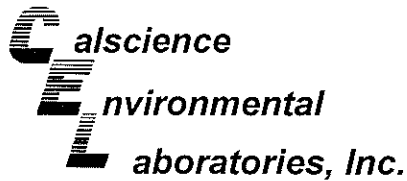
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-W	08-11-1328-25-A	11/13/08 14:55	Aqueous	GC/MS BB	11/18/08	11/18/08 19:11	081118L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	120	73-157			Dibromofluoromethane	105	82-142		
Toluene-d8	100	82-112			1,4-Bromofluorobenzene	101	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-565	N/A	Aqueous	GC/MS BB	11/18/08	11/18/08 13:03	081118L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	113	73-157			Dibromofluoromethane	103	82-142		
Toluene-d8	104	82-112			1,4-Bromofluorobenzene	93	75-105		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO Station 608

Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Waste Composite	08-11-1328-2-A	11/13/08 13:13	Solid	GC/MS Z	11/19/08	11/19/08 15:45	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Xylenes (total)	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	114	75-141			1,2-Dichloroethane-d4	116	73-151		
Toluene-d8	92	87-111			1,4-Bromofluorobenzene	94	71-113		

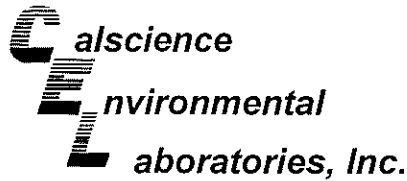
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-6	08-11-1328-3-A	11/13/08 11:35	Solid	GC/MS Z	11/19/08	11/19/08 16:16	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	100	75-141			1,2-Dichloroethane-d4	100	73-151		
Toluene-d8	99	87-111			1,4-Bromofluorobenzene	91	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-9	08-11-1328-5-A	11/13/08 11:42	Solid	GC/MS Z	11/19/08	11/19/08 16:47	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	111	75-141			1,2-Dichloroethane-d4	118	73-151		
Toluene-d8	102	87-111			1,4-Bromofluorobenzene	93	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO Station 608

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-12	08-11-1328-7-A	11/13/08 11:50	Solid	GC/MS Z	11/19/08	11/19/08 17:17	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	112	75-141			1,2-Dichloroethane-d4	116	73-151		
Toluene-d8	101	87-111			1,4-Bromofluorobenzene	95	71-113		

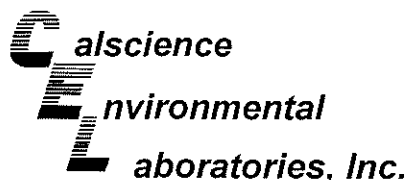
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-15	08-11-1328-9-A	11/13/08 12:00	Solid	GC/MS Z	11/19/08	11/19/08 17:48	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	96	75-141			1,2-Dichloroethane-d4	97	73-151		
Toluene-d8	98	87-111			1,4-Bromofluorobenzene	89	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-18	08-11-1328-11-A	11/13/08 12:11	Solid	GC/MS Z	11/19/08	11/19/08 18:19	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	105	75-141			1,2-Dichloroethane-d4	110	73-151		
Toluene-d8	100	87-111			1,4-Bromofluorobenzene	91	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO Station 608

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-21.5	08-11-1328-13-A	11/13/08 12:32	Solid	GC/MS Z	11/19/08	11/19/08 18:50	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	105	75-141			1,2-Dichloroethane-d4	104	73-151		
Toluene-d8	99	87-111			1,4-Bromofluorobenzene	89	71-113		

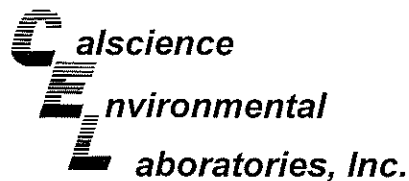
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-7.5	08-11-1328-16-A	11/13/08 13:57	Solid	GC/MS Z	11/19/08	11/19/08 19:20	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	98	75-141			1,2-Dichloroethane-d4	100	73-151		
Toluene-d8	100	87-111			1,4-Bromofluorobenzene	90	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-10.5	08-11-1328-18-A	11/13/08 14:12	Solid	GC/MS Z	11/19/08	11/19/08 13:42	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	5		Xylenes (total)	ND	0.0050	5	
1,2-Dibromoethane	ND	0.0050	5		Methyl-t-Butyl Ether (MTBE)	ND	0.0050	5	
1,2-Dichloroethane	ND	0.0050	5		Tert-Butyl Alcohol (TBA)	ND	0.050	5	
Ethylbenzene	ND	0.0050	5		Diisopropyl Ether (DIPE)	ND	0.010	5	
Ethanol	ND	0.50	5		Ethyl-t-Butyl Ether (ETBE)	ND	0.010	5	
Toluene	ND	0.0050	5		Tert-Amyl-Methyl Ether (TAME)	ND	0.010	5	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	99	75-141			1,2-Dichloroethane-d4	104	73-151		
Toluene-d8	100	87-111			1,4-Bromofluorobenzene	93	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO Station 608

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-14.5	08-11-1328-19-A	11/13/08 14:17	Solid	GC/MS Z	11/19/08	11/19/08 19:51	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	110	75-141			1,2-Dichloroethane-d4	116	73-151		
Toluene-d8	101	87-111			1,4-Bromofluorobenzene	96	71-113		

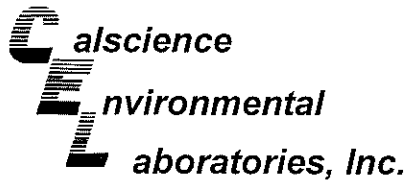
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-16	08-11-1328-20-A	11/13/08 14:25	Solid	GC/MS Z	11/19/08	11/19/08 20:22	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	115	75-141			1,2-Dichloroethane-d4	124	73-151		
Toluene-d8	102	87-111			1,4-Bromofluorobenzene	92	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-19	08-11-1328-22-A	11/13/08 14:35	Solid	GC/MS Z	11/19/08	11/19/08 20:53	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	114	75-141			1,2-Dichloroethane-d4	121	73-151		
Toluene-d8	100	87-111			1,4-Bromofluorobenzene	93	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report

08-11-1328-24-A
11/13/08 14:45

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO Station 608

Page 5 of 5

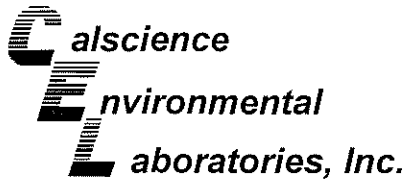
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-23	08-11-1328-24-A	11/13/08 14:45	Solid	GC/MS Z	11/19/08	11/19/08 21:23	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	112	75-141			1,2-Dichloroethane-d4	119	73-151		
Toluene-d8	100	87-111			1,4-Bromofluorobenzene	94	71-113		

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-709-66	N/A	Solid	GC/MS Z	11/19/08	11/19/08 13:11	081119L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	99	75-141			1,2-Dichloroethane-d4	94	73-151		
Toluene-d8	98	87-111			1,4-Bromofluorobenzene	88	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Quality Control - Spike/Spike Duplicate



Stratus Environmental, inc.
 3330 Cameron Park Drive, Suite 550
 Cameron Park, CA 95682-8861

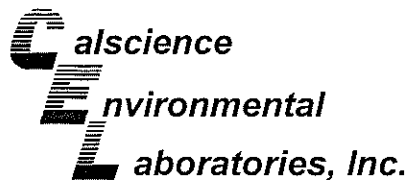
Date Received: 11/14/08
 Work Order No: 08-11-1328
 Preparation: EPA 3050B
 Method: EPA 6010B

Project ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-11-1327-1	Solid	ICP 5300	11/20/08	11/20/08	081120S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	99	102	75-125	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - PDS / PSDS

Stratus Environmental, inc.
 3330 Cameron Park Drive, Suite 550
 Cameron Park, CA 95682-8861

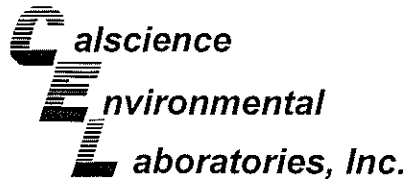
Date Received: 11/14/08
 Work Order No: 08-11-1328
 Preparation: EPA 3050B
 Method: EPA 6010B

Project: ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PSDS Batch Number
08-11-1327-1	Solid	ICP 5300	11/20/08	11/20/08	081120S01

Parameter	PDS %REC	PSDS %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	95	95	75-125	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

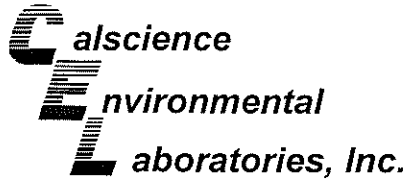
Project ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-11-1599-10	Aqueous	GC 4	11/19/08	11/20/08	081119S02

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	116	115	38-134	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



Quality Control - Spike/Spike Duplicate



Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

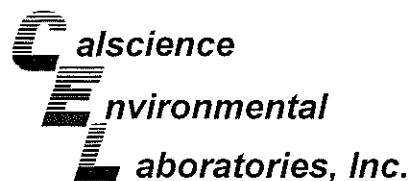
Project ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-11-1051-15	Solid	GC 1	11/15/08	11/18/08	081118S01

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	90	81	42-126	10	0-25	

RPD - Relative Percent Difference , CL - Control Limit

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Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

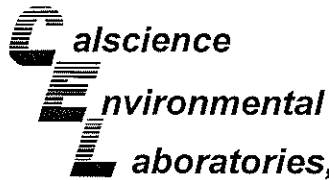
Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-2-19	Solid	GC 1	11/15/08	11/19/08	081118S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	87	87	42-126	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

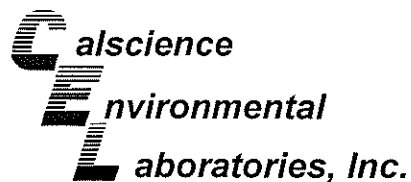
Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B

Project ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-11-1329-1	Aqueous	GC/MS BB	11/18/08	11/18/08	081118S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	100	100	86-122	1	0-8	
Carbon Tetrachloride	117	109	78-138	7	0-9	
Chlorobenzene	105	103	90-120	1	0-9	
1,2-Dibromoethane	93	91	70-130	2	0-30	
1,2-Dichlorobenzene	99	98	89-119	1	0-10	
1,1-Dichloroethene	95	94	52-142	1	0-23	
Ethylbenzene	103	100	70-130	2	0-30	
Toluene	101	99	85-127	3	0-12	
Trichloroethene	99	97	78-126	2	0-10	
Vinyl Chloride	102	104	56-140	2	0-21	
Methyl-t-Butyl Ether (MTBE)	96	92	64-136	4	0-28	
Tert-Butyl Alcohol (TBA)	114	116	27-183	2	0-60	
Diisopropyl Ether (DIPE)	96	98	78-126	2	0-16	
Ethyl-t-Butyl Ether (ETBE)	98	95	67-133	3	0-21	
Tert-Amyl-Methyl Ether (TAME)	99	94	63-141	5	0-21	
Ethanol	112	96	11-167	16	0-64	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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3330 Cameron Park Drive, Suite 550
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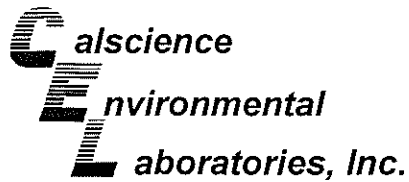
Date Received: 11/14/08
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B

Project ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-2-10.5	Solid	GC/MS Z	11/19/08	11/19/08	081119S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	93	80	78-114	15	0-14	BA
Chloroform	89	81	80-120	10	0-20	
1,1-Dichloroethane	87	79	80-120	10	0-20	LN
1,2-Dichloroethane	77	70	80-120	10	0-20	LN
1,1-Dichloroethene	103	94	73-127	10	0-21	
Ethanol	36	45	45-135	21	0-29	LN
Tetrachloroethene	76	67	80-120	13	0-20	LN
Toluene	96	82	74-116	16	0-16	
Trichloroethene	98	83	74-122	16	0-17	
Methyl-t-Butyl Ether (MTBE)	69	65	69-123	6	0-18	LN

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
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Cameron Park, CA 95682-8861

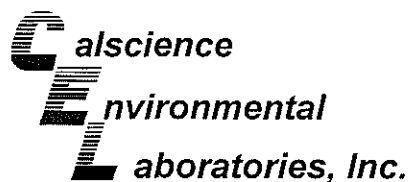
Date Received: N/A
Work Order No: 08-11-1328
Preparation: EPA 3050B
Method: EPA 6010B

Project: ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-11,743	Solid	ICP 5300	11/20/08	11/20/08	081120L01

Parameter	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Lead	110	109	80-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

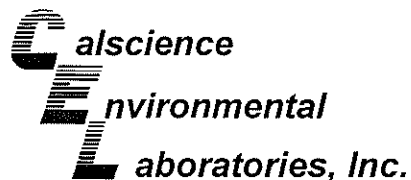
Date Received: N/A
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-338	Aqueous	GC 4	11/19/08	11/20/08	081119B02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	111	107	78-120	4	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Stratus Environmental, inc.
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Cameron Park, CA 95682-8861

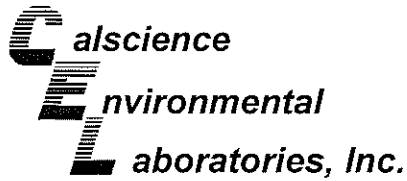
Date Received: N/A
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-697-50	Solid	GC 1	11/18/08	11/18/08	081118B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	91	87	70-118	4	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

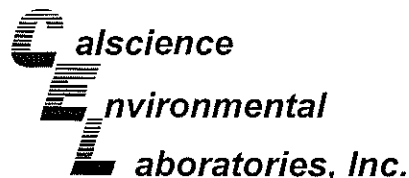
Date Received: N/A
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-697-51	Solid	GC 1	11/18/08	11/19/08	081118B02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	86	88	70-118	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: N/A
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-703-565	Aqueous	GC/MS BB	11/18/08	11/18/08	081118L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	105	102	87-117	82-122	3	0-7	
Carbon Tetrachloride	118	114	78-132	69-141	3	0-8	
Chlorobenzene	109	107	88-118	83-123	1	0-8	
1,2-Dibromoethane	91	96	80-120	73-127	5	0-20	
1,2-Dichlorobenzene	103	102	88-118	83-123	1	0-8	
1,1-Dichloroethene	101	100	71-131	61-141	1	0-14	
Ethylbenzene	106	105	80-120	73-127	1	0-20	
Toluene	106	103	85-127	78-134	2	0-7	
Trichloroethene	103	104	85-121	79-127	1	0-11	
Vinyl Chloride	113	108	64-136	52-148	5	0-10	
Methyl-t-Butyl Ether (MTBE)	95	99	67-133	56-144	4	0-16	
Tert-Butyl Alcohol (TBA)	103	111	34-154	14-174	8	0-19	
Diisopropyl Ether (DIPE)	101	102	80-122	73-129	1	0-8	
Ethyl-t-Butyl Ether (ETBE)	101	103	73-127	64-136	2	0-11	
Tert-Amyl-Methyl Ether (TAME)	96	102	69-135	58-146	5	0-12	
Ethanol	92	112	34-124	19-139	19	0-44	

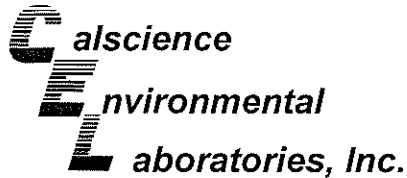
Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate

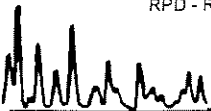
Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

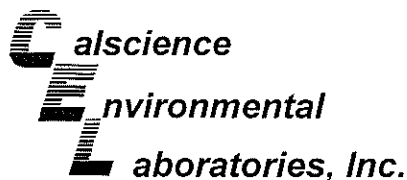
Date Received: N/A
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-66	Solid	GC/MS Z	11/19/08	11/19/08	081119L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	104	107	84-114	79-119	3	0-7	
Bromobenzene	107	108	80-120	73-127	1	0-20	
Bromochloromethane	113	108	80-120	73-127	4	0-20	
Bromodichloromethane	114	114	80-120	73-127	1	0-20	
Bromoform	107	104	80-120	73-127	4	0-20	
Bromomethane	157	129	80-120	73-127	20	0-20	LQ
n-Butylbenzene	109	111	77-123	69-131	2	0-25	
sec-Butylbenzene	110	111	80-120	73-127	1	0-20	
tert-Butylbenzene	127	115	80-120	73-127	10	0-20	LQ
Carbon Disulfide	106	107	80-120	73-127	1	0-20	
Carbon Tetrachloride	110	105	69-135	58-146	5	0-13	
Chlorobenzene	103	104	85-109	81-113	1	0-8	
Chloroethane	94	132	80-120	73-127	34	0-20	LQ,BA
Chloroform	113	112	80-120	73-127	1	0-20	
Chloromethane	108	119	80-120	73-127	9	0-20	
2-Chlorotoluene	112	113	80-120	73-127	1	0-20	
4-Chlorotoluene	108	110	80-120	73-127	2	0-20	
Dibromochloromethane	108	107	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	106	106	80-120	73-127	0	0-20	
1,2-Dibromoethane	104	102	80-120	73-127	2	0-20	
Dibromomethane	99	98	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	101	104	80-110	75-115	3	0-10	
1,3-Dichlorobenzene	101	104	80-120	73-127	3	0-20	
1,4-Dichlorobenzene	98	100	80-120	73-127	2	0-20	
Dichlorodifluoromethane	120	128	80-120	73-127	7	0-20	LQ
1,1-Dichloroethane	109	111	80-120	73-127	2	0-20	
1,2-Dichloroethane	104	103	80-120	73-127	1	0-20	
1,1-Dichloroethene	117	114	83-125	76-132	2	0-10	
c-1,2-Dichloroethene	115	116	80-120	73-127	1	0-20	
t-1,2-Dichloroethene	104	105	80-120	73-127	2	0-20	
1,2-Dichloropropane	105	106	79-115	73-121	1	0-25	
1,3-Dichloropropane	104	104	80-120	73-127	0	0-20	
2,2-Dichloropropane	93	102	80-120	73-127	9	0-20	
1,1-Dichloropropene	109	106	80-120	73-127	2	0-20	
c-1,3-Dichloropropene	114	115	80-120	73-127	1	0-20	
t-1,3-Dichloropropene	111	110	80-120	73-127	1	0-20	
Ethylbenzene	111	111	80-120	73-127	0	0-20	
Isopropylbenzene	115	115	80-120	73-127	0	0-20	

RPD - Relative Percent Difference, CL - Control Limit





Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: N/A
Work Order No: 08-11-1328
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO Station 608

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-66	Solid	GC/MS Z	11/19/08	11/19/08	081119L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
p-Isopropyltoluene	111	113	80-120	73-127	2	0-20	
Methylene Chloride	105	104	80-120	73-127	1	0-20	
Naphthalene	99	100	80-120	73-127	1	0-20	
n-Propylbenzene	111	111	80-120	73-127	0	0-20	
Styrene	112	113	80-120	73-127	2	0-20	
Ethanol	85	84	50-134	36-148	1	0-23	
1,1,1,2-Tetrachloroethane	109	109	80-120	73-127	0	0-20	
1,1,2,2-Tetrachloroethane	104	100	80-120	73-127	3	0-20	
Tetrachloroethene	80	83	80-120	73-127	4	0-20	
Toluene	106	108	79-115	73-121	2	0-8	
1,2,3-Trichlorobenzene	101	100	80-120	73-127	1	0-20	
1,2,4-Trichlorobenzene	102	101	80-120	73-127	0	0-20	
1,1,1-Trichloroethane	108	107	80-120	73-127	1	0-20	
1,1,2-Trichloroethane	102	97	80-120	73-127	5	0-20	
Trichloroethene	106	108	87-111	83-115	1	0-7	
Trichlorofluoromethane	121	127	80-120	73-127	4	0-20	LQ
1,2,3-Trichloropropane	107	103	80-120	73-127	4	0-20	
1,2,4-Trimethylbenzene	111	114	80-120	73-127	3	0-20	
1,3,5-Trimethylbenzene	114	115	80-120	73-127	1	0-20	
Vinyl Acetate	145	136	80-120	73-127	6	0-20	LQ
Vinyl Chloride	97	111	72-126	63-135	14	0-10	BA
p/m-Xylene	113	115	80-120	73-127	2	0-20	
o-Xylene	112	113	80-120	73-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	110	106	75-129	66-138	4	0-13	
Tert-Butyl Alcohol (TBA)	95	97	66-126	56-136	2	0-24	
Diisopropyl Ether (DIPE)	101	97	77-125	69-133	4	0-13	
Ethyl-t-Butyl Ether (ETBE)	111	107	72-132	62-142	4	0-12	
Tert-Amyl-Methyl Ether (TAME)	109	109	77-125	69-133	0	0-10	

Total number of LCS compounds : 66

Total number of ME compounds : 1

Total number of ME compounds allowed : 3

LCS ME CL validation result : Pass

RPD - Relative Percent Difference, CL - Control Limit



Glossary of Terms and Qualifiers

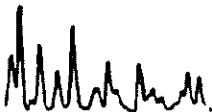
Work Order Number: 08-11-1328

<u>Qualifier</u>	<u>Definition</u>
AX	Sample too dilute to quantify surrogate.
BA	There was no MS/MSD analyzed with this batch due to insufficient sample volume (NR = not reported). See Blank Spike/Blank Spike Duplicate.
BA,AY	Relative percent difference out of control, matrix interference suspected.
BB	Sample > 4x spike concentration.
BF	Reporting limits raised due to high hydrocarbon background.
BH	Reporting limits raised due to high level of non-target analytes.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
BY	Sample received at improper temperature.
CL	Initial analysis within holding time but required dilution.
CQ	Analyte concentration greater than 10 times the blank concentration.
CU	Surrogate concentration diluted to not detectable during analysis.
DF	Reporting limits elevated due to matrix interferences.
ET	Sample was extracted past end of recommended max. holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GS	Internal standard recovery is outside method recovery limit.
IB	CCV recovery abovelimit; analyte not detected.
IH	Calibrtn. verif. recov. below method CL for this analyte.
IJ	Calibrtn. verif. recov. above method CL for this analyte.
J,DX	J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL.
LA	Confirmatory analysis was past holding time.
LG	Surrogate recovery below the acceptance limit.
LH	Surrogate recovery above the acceptance limit.
LM,AY	MS and/or MSD above acceptance limits. See Blank Spike (LCS). Matrix interference suspected.
LN,AY	MS and/or MSD below acceptance limits. See Blank Spike (LCS). Matrix interference suspected.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.



Work Order Number: 08-11-1328

<u>Qualifier</u>	<u>Definition</u>
MB	Analyte present in the method blank.
MG	Analyte is a suspected lab contaminate.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.





Chain of Custody Record

173140

Project Name: ARCO Station 608
 BP BU/AR Region/Enfos Segment: Alameda Portfolio
 State or Lead Regulatory Agency: Alameda County Health Care Services Agency
 Requested Due Date (mm/dd/yy): 11-21-08

1328

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: <u>Cal Science</u>	BP/AR Facility No.: <u>608</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>7440 Lincoln Way Garden Grove, CA 92841</u>	BP/AR Facility Address: <u>17601 Hesperian Blvd., San Lorenzo</u>	Address: <u>3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95672</u>
Lab PM:	Site Lat/Long:	Consultant/Contractor Project No.: <u>E-608</u>
Tele/Fax:	California Global ID No.: <u>T0000100085</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR EBM: <u>Paul Supple</u>	Enfos Project No.: <u>GOC 24-0032</u>	Tele/Fax: <u>530-676-6000</u>
Address:	Provision of OOC (circle one)	Report Type & QC Level: <u>Level 1 w/EDF</u>
Tele/Fax: <u>925-275-3801</u>	Phase/WBS: <u>assessment</u>	E-mail EDD To:
	Sub Phase/Task: <u>analytical cost</u>	Invoice to: Consultant or BP of Atlantic Richfield Co. (circle one)
	Cost Element: <u>Contractor Labor</u>	

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative				Requested Analysis						Sample Point Lat/Long and Comments	
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GR0, Alex	Sox45	1,2-DCA	EDB	e-trace		total lead
1	B-1-W	13:40	11-13		✓		6							✓	✓	✓	✓			
2	waste composite	13:15	11-13	✓			9							✓	✓	✓	✓			
3	B-1-b	11:35					1							✓	✓	✓	✓			
4	B-1-7.5	11:37					1							✓	✓	✓	✓			hold
5	B-1-9	11:42					1							✓	✓	✓	✓			hold
6	B-1-10.5	11:45					1							✓	✓	✓	✓			hold
7	B-1-12	11:50					1							✓	✓	✓	✓			hold
8	B-1-13.5	11:53					1							✓	✓	✓	✓			hold
9	B-1-15	12:00					1							✓	✓	✓	✓			hold
10	B-1-16.5	12:03					1							✓	✓	✓	✓			hold

Sampler's Name: <u>Stratus Environ Scott Bittling</u>	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: <u>Stratus Environmental, Inc.</u>	<u>Scott Bittling</u>					
Shipment Date: <u>11-13-08</u>						
Shipment Method: <u>G.S.O.</u>						
Shipment Tracking No: <u>105748847</u>				<u>Stratus</u>	<u>11/14/08</u>	<u>1030</u>

Special Instructions:

Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Laboratory

Page 3 of 3



Chain of Custody Record

173139

Project Name: Arco Station 608
 BP BU/AR Region/Enfos Segment: Alameda Portfolio
 State or Lead Regulatory Agency: Alameda County Health Care Agency
 Requested Due Date (mm/dd/yy): 11-21-08

1328

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: <u>Cal Science</u>	BP/AR Facility No.: <u>608</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>7440 Lincoln Way</u> <u>Gardena, CA 90241</u>	BP/AR Facility Address: <u>17601 Hesperian Blvd., San Lorenzo</u>	Address: <u>3530 Cameron Park Dr., #550</u> <u>Cameron Park, CA 95622</u>
Lab PM:	California Global ID No.: <u>TD600100085</u>	Consultant/Contractor Project No.: <u>E-608</u>
Tele/Fax:	Enfos Project No.: <u>GOC 24-0032</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR EBM: <u>Pand Supply</u>	Provision or OOC (circle one)	Tele/Fax: <u>530-676-6004</u>
Address:	Phase/WBS: <u>assessment</u>	Report Type & QC Level: <u>Level 1 w/ EDF</u>
Tele/Fax: <u>925-275-3801</u>	Sub Phase/Task: <u>analytical cost</u>	E-mail EDD To:
	Cost Element: <u>contractor labor</u>	Invoice to: Consultant or BP or <u>Atlantic Richfield Co. (circle one)</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments		
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GLX/STEX	Seals	1,2-DCA	EDB	ethanol		10 lead lead	
11	B-1-18	12:11	11-13	✓											✓	✓	✓	✓	✓		
12	B-1-19.5	12:13		✓											✓	✓	✓	✓	✓		hold
13	B-1-21.5	12:32		✓											✓	✓	✓	✓	✓		
14	B-1-24	12:42		✓											✓	✓	✓	✓	✓		hold
15	B-2-6	13:53		✓											✓	✓	✓	✓	✓		hold
16	B-2-7.5	13:57		✓											✓	✓	✓	✓	✓		
17	B-2-9	14:10		✓											✓	✓	✓	✓	✓		hold
18	B-2-10.5	14:12		✓											✓	✓	✓	✓	✓		
19	B-2-14.5	14:17		✓											✓	✓	✓	✓	✓		
20	B-2-16	14:25		✓											✓	✓	✓	✓	✓		

Sampler's Name: <u>Scott Bittinger</u>	Relinquished By / Affiliation: <u>Scott Bittinger</u>	Date:	Time:	Accepted By / Affiliation: <u>Alameda</u>	Date: <u>11/19/08</u>	Time: <u>1030</u>
Sampler's Company: <u>Stratus Environmental, Inc.</u>						
Shipment Date: <u>11-13-08</u>						
Shipment Method: <u>650</u>						
Shipment Tracking No:						

Special Instructions:

Custody Seals In Place: Yes / No Temp Blank: Yes / No Cooler Temp on Receipt: _____ °F/C Trip Blank: Yes / No MS/MSD Sample Submitted: Yes / No

Page 2 of 3



Chain of Custody Record

173142

Project Name: Arco Station 608 1328
 BP BU/AR Region/Enfos Segment: Alameda Portfolio
 State or Lead Regulatory Agency: Alameda County Health Care Agency
 Requested Due Date (mm/dd/yy): 11-21-08

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: <u>Cal Scener</u>	BP/AR Facility No.: <u>608</u>	Consultant/Contractor: <u>Stratus Environmental Inc</u>
Address: <u>9</u>	BP/AR Facility Address: <u>4760 Heyburn Blvd, San Leandro CA</u>	Address: <u>3330 Cameron Park Dr #550</u>
Lab PM:	Site Lat/Long:	<u>Cameron Park, CA 95082</u>
Tele/Fax:	California Global ID No.: <u>T0600180085</u>	Consultant/Contractor Project No.: <u>P-608</u>
BP/AR EBM: <u>Paul Supple</u>	Enfos Project No.: <u>GOC 24-0032</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
Address:	Provision or OOC (circle one)	Tele/Fax: <u>530-676-6004</u>
Tele/Fax:	Phase/WBS: <u>assessment</u>	Report Type & QC Level: <u>lead w/ EDP</u>
	Sub Phase/Task: <u>analytical cost</u>	E-mail EDD To:
	Cost Element: <u>contract labor</u>	Invoice to: Consultant or BP or <u>Atlantic Richfield Co</u> (circle one)

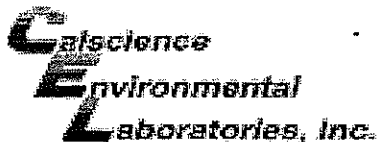
Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments		
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	Col/Blex	Soxh	1/2-DCA	EDB	ethanol		total lead	
21	B-2-17.5	14:28	11-13	✓				1							✓	✓	✓	✓	✓		hold
22	B-2-19	14:35		✓				1							✓	✓	✓	✓	✓		
23	B-2-21	14:40		✓				1							✓	✓	✓	✓	✓		hold
24	B-2-23	14:45		✓				1							✓	✓	✓	✓	✓		
25	B-2-w	14:58			✓			6							✓	✓	✓	✓	✓		
26																					
7																					
8																					
9																					
10																					

Sampler's Name: <u>Scott Bittings</u>	Relinquished By / Affiliation: <u>Scott Bittings</u>	Date:	Time:	Accepted By / Affiliation: <u>Stratus</u>	Date: <u>11/18/08</u>	Time: <u>10:35</u>
Sampler's Company: <u>Stratus Environmental Inc.</u>						
Shipment Date: <u>11-13-08</u>						
Shipment Method: <u>Golden State Overnight</u>						
Shipment Tracking No:						

Special Instructions:

Custody Seals In Place: Yes / No Temp Blank: Yes / No Cooler Temp on Receipt: _____ °F/C Trip Blank: Yes / No MS/MSD Sample Submitted: Yes / No

Page 3 of 3



WORK ORDER #: 08-11-1328

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Stratus

DATE: 11/14/08

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 4.1 °C - 0.2°C (CF) = 3.9 °C Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter Metals Only PCBs Only Initial: JP

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Initial: JP

Sample _____ No (Not Intact) Not Present Initial: AL

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores® TerraCores® _____

Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBpo₄ 1AGB 1AGBna₂ 1AGBs 500AGB 500AGBs 250CGB 250CGBs 1PB 500PB 500PBna 250PB 250PBn 125PB 125PBzanna 100PBsterile 100PBna₂ _____ _____ _____

Air: Tedlar® Summa® _____

Container: C:Clear A:Amber P:Poly/Plastic G:Glass J:Jar B:Bottle

Preservative: h:HCL n:HNO₃ na₂:Na₂S₂O₃ na:NaOH po₄:H₃PO₄ s:H₂SO₄ znna:ZnAc₂+NaOH

Checked/Labeled by: AL

Reviewed by: JP

Scanned by: AL

APPENDIX C

GEOTRACKER UPLOAD CONFIRMATION

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

<u>Submittal Type:</u>	EDF - Soil and Water Investigation Report
<u>Submittal Title:</u>	4Q08 Boring Samples
<u>Facility Global ID:</u>	T0600100085
<u>Facility Name:</u>	ARCO #00608
<u>File Name:</u>	08111328.zip
<u>Organization Name:</u>	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
<u>IP Address:</u>	67.118.40.90
<u>Submittal Date/Time:</u>	12/4/2008 11:05:40 AM
<u>Confirmation Number:</u>	1041118800

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600100085
<u>Field Point:</u>	B-1
<u>Facility Name:</u>	ARCO #00608
<u>File Name:</u>	BEO_BORE B-1.pdf
<u>Username:</u>	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
<u>IP Address:</u>	67.118.40.90
<u>Submittal Date/Time:</u>	12/4/2008 10:54:41 AM
<u>Confirmation Number:</u>	2318142116

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600100085
<u>Field Point:</u>	B-2
<u>Facility Name:</u>	ARCO #00608
<u>File Name:</u>	GEO_BORE B-2.pdf
<u>Username:</u>	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
<u>IP Address:</u>	67.118.40.90
<u>Submittal Date/Time:</u>	12/4/2008 10:56:06 AM
<u>Confirmation Number:</u>	7831252157

APPENDIX D

COPIES OF PRIVATE WELL STATUS INQUIRY LETTERS SENT
WITH CERTIFICATES OF MAILING

5 November 2008

Project No. 06-08-606

Resident
634 Hacienda Avenue
San Lorenzo, CA 94580

Re: Private Well Status, 634 Hacienda Avenue, San Lorenzo, California

Dear Resident of 634 Hacienda Avenue:

Broadbent & Associates, Inc. (BAI) is an environmental consulting firm currently working for Atlantic Richfield Company. Our client has been directed by the Alameda County Environmental Health Services (ACEHS) to perform a status review of private wells within the vicinity of nearby ARCO Gasoline Service Station No.608, located at 17601 Hesperian Boulevard, San Lorenzo, California. Historic records indicate that a private drinking water or irrigation supply well was once operated at your property and may have previously been sampled by a consultant for Atlantic Richfield Company. The status of private wells has been requested by ACEHS. Please complete the following information regarding the current status of the well previously or currently located on your property:

	Yes	No
Is a water supply well located on your property?	<input type="checkbox"/>	<input type="checkbox"/>
If a well is present, is it functional/operable?	<input type="checkbox"/>	<input type="checkbox"/>
If a well is not present, was the previous well properly abandoned?	<input type="checkbox"/>	<input type="checkbox"/>

Please return this survey letter within the enclosed self-addressed stamped envelope at your earliest convenience. If a functional well is still in place on your property, a representative from Stratus Environmental, Inc. will contact you to offer to collect a sample from your well and test water quality parameters at no charge to you. Would you please list your name, telephone number, and the best time to contact you in the space provided below?

Should you have questions regarding this letter request, please do not hesitate to contact me at (530) 566-1400, or Mr. Paresh Khatri of ACEHS at (510) 777-2478.

Sincerely,
BROADBENT & ASSOCIATES, INC.



Thomas A. Venus, P.E.
Senior Engineer

cc: Mr. Paresh Khatri, Alameda County Environmental Health Services (Submitted via ACEHS ftp site)
Mr. Paul Supple, Atlantic Richfield Company (Submitted by ENFOS)

5 November 2008

Project No. 06-08-606

Resident
642 Hacienda Avenue
San Lorenzo, CA 94580

Re: Private Well Status, 642 Hacienda Avenue, San Lorenzo, California

Dear Resident of 642 Hacienda Avenue:

Broadbent & Associates, Inc. (BAI) is an environmental consulting firm currently working for Atlantic Richfield Company. Our client has been directed by the Alameda County Environmental Health Services (ACEHS) to perform a status review of private wells within the vicinity of nearby ARCO Gasoline Service Station No.608, located at 17601 Hesperian Boulevard, San Lorenzo, California. Historic records indicate that a private drinking water or irrigation supply well was once operated at your property and may have previously been sampled by a consultant for Atlantic Richfield Company. The status of private wells has been requested by ACEHS. Please complete the following information regarding the current status of the well previously or currently located on your property:

	Yes	No
Is a water supply well located on your property?	<input type="checkbox"/>	<input type="checkbox"/>
If a well is present, is it functional/operable?	<input type="checkbox"/>	<input type="checkbox"/>
If a well is not present, was the previous well properly abandoned?	<input type="checkbox"/>	<input type="checkbox"/>

Please return this survey letter within the enclosed self-addressed stamped envelope at your earliest convenience. If a functional well is still in place on your property, a representative from Stratus Environmental, Inc. will contact you to offer to collect a sample from your well and test water quality parameters at no charge to you. Would you please list your name, telephone number, and the best time to contact you in the space provided below?

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Sincerely,
BROADBENT & ASSOCIATES, INC.



Thomas A. Venus, P.E.
Senior Engineer

cc: Mr. Paresh Khatri, Alameda County Environmental Health Services (Submitted via ACEHS ftp site)
Mr. Paul Supple, Atlantic Richfield Company (Submitted by ENFOS)

5 November 2008

Project No. 06-08-606

Resident
17302 Via Magdalena
San Lorenzo, CA 94580

Re: Private Well Status, 17302 Via Magdalena, San Lorenzo, California

Dear Resident of 17302 Via Magdalena:

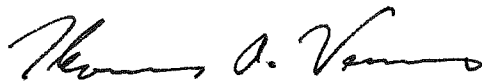
Broadbent & Associates, Inc. (BAI) is an environmental consulting firm currently working for Atlantic Richfield Company. Our client has been directed by the Alameda County Environmental Health Services (ACEHS) to perform a status review of private wells within the vicinity of nearby ARCO Gasoline Service Station No.608, located at 17601 Hesperian Boulevard, San Lorenzo, California. Historic records indicate that a private drinking water or irrigation supply well was once operated at your property and may have previously been sampled by a consultant for Atlantic Richfield Company. The status of private wells has been requested by ACEHS. Please complete the following information regarding the current status of the well previously or currently located on your property:

	Yes	No
Is a water supply well located on your property?	<input type="checkbox"/>	<input type="checkbox"/>
If a well is present, is it functional/operable?	<input type="checkbox"/>	<input type="checkbox"/>
If a well is not present, was the previous well properly abandoned?	<input type="checkbox"/>	<input type="checkbox"/>

Please return this survey letter within the enclosed self-addressed stamped envelope at your earliest convenience. If a functional well is still in place on your property, a representative from Stratus Environmental, Inc. will contact you to offer to collect a sample from your well and test water quality parameters at no charge to you. Would you please list your name, telephone number, and the best time to contact you in the space provided below?

Should you have questions regarding this letter request, please do not hesitate to contact me at (530) 566-1400, or Mr. Paresh Khatri of ACEHS at (510) 777-2478.

Sincerely,
BROADBENT & ASSOCIATES, INC.



Thomas A. Venus, P.E.
Senior Engineer

cc: Mr. Paresh Khatri, Alameda County Environmental Health Services (Submitted via ACEHS ftp site)
Mr. Paul Supple, Atlantic Richfield Company (Submitted by ENFOS)

5 November 2008

Project No. 06-08-606

Resident
17372 Via Magdalena
San Lorenzo, CA 94580

Re: Private Well Status, 17372 Via Magdalena, San Lorenzo, California

Dear Resident of 17372 Via Magdalena:

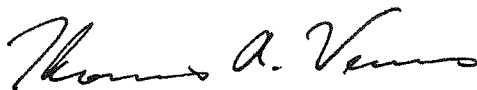
Broadbent & Associates, Inc. (BAI) is an environmental consulting firm currently working for Atlantic Richfield Company. Our client has been directed by the Alameda County Environmental Health Services (ACEHS) to perform a status review of private wells within the vicinity of nearby ARCO Gasoline Service Station No.608, located at 17601 Hesperian Boulevard, San Lorenzo, California. Historic records indicate that a private drinking water or irrigation supply well was once operated at your property and may have previously been sampled by a consultant for Atlantic Richfield Company. The status of private wells has been requested by ACEHS. Please complete the following information regarding the current status of the well previously or currently located on your property:

	Yes	No
Is a water supply well located on your property?	<input type="checkbox"/>	<input type="checkbox"/>
If a well is present, is it functional/operable?	<input type="checkbox"/>	<input type="checkbox"/>
If a well is not present, was the previous well properly abandoned?	<input type="checkbox"/>	<input type="checkbox"/>

Please return this survey letter within the enclosed self-addressed stamped envelope at your earliest convenience. If a functional well is still in place on your property, a representative from Stratus Environmental, Inc. will contact you to offer to collect a sample from your well and test water quality parameters at no charge to you. Would you please list your name, telephone number, and the best time to contact you in the space provided below?

Should you have questions regarding this letter request, please do not hesitate to contact me at (530) 566-1400, or Mr. Paresh Khatri of ACEHS at (510) 777-2478.

Sincerely,
BROADBENT & ASSOCIATES, INC.



Thomas A. Venus, P.E.
Senior Engineer

cc: Mr. Paresh Khatri, Alameda County Environmental Health Services (Submitted via ACEHS ftp site)
Mr. Paul Supple, Atlantic Richfield Company (Submitted by ENFOS)

5 November 2008

Project No. 06-08-606

Resident
17348 Via Encinas
San Lorenzo, CA 94580

Re: Private Well Status, 17348 Via Encinas, San Lorenzo, California

Dear Resident of 17348 Via Encinas:


Broadbent & Associates, Inc. (BAI) is an environmental consulting firm currently working for Atlantic Richfield Company. Our client has been directed by the Alameda County Environmental Health Services (ACEHS) to perform a status review of private wells within the vicinity of nearby ARCO Gasoline Service Station No.608, located at 17601 Hesperian Boulevard, San Lorenzo, California. Historic records indicate that a private drinking water or irrigation supply well was once operated at your property and may have previously been sampled by a consultant for Atlantic Richfield Company. The status of private wells has been requested by ACEHS. Please complete the following information regarding the current status of the well previously or currently located on your property:

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If a well is not present, was the previous well properly abandoned?	<input type="checkbox"/>	<input type="checkbox"/>

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Sincerely,
BROADBENT & ASSOCIATES, INC.


Thomas A. Venus, P.E.
Senior Engineer

cc: Mr. Paresh Khatri, Alameda County Environmental Health Services (Submitted via ACEHS ftp site)
Mr. Paul Supple, Atlantic Richfield Company (Submitted by ENFOS)

APPENDIX E

RETURNED PRIVATE WELL STATUS INQUIRY LETTERS

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
Voice (530) 566-1400
Fax (530) 566-1401



5 November 2008

Project No. 06-08-606

Resident
17302 Via Magdalena
San Lorenzo, CA 94580

Re: Private Well Status, 17302 Via Magdalena, San Lorenzo, California

Dear Resident of 17302 Via Magdalena:

Broadbent & Associates, Inc. (BAI) is an environmental consulting firm currently working for Atlantic Richfield Company. Our client has been directed by the Alameda County Environmental Health Services (ACEHS) to perform a status review of private wells within the vicinity of nearby ARCO Gasoline Service Station No.608, located at 17601 Hesperian Boulevard, San Lorenzo, California. Historic records indicate that a private drinking water or irrigation supply well was once operated at your property and may have previously been sampled by a consultant for Atlantic Richfield Company. The status of private wells has been requested by ACEHS. Please complete the following information regarding the current status of the well previously or currently located on your property:

	Yes	No
Is a water supply well located on your property?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If a well is present, is it functional/operable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If a well is not present, was the previous well properly abandoned?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Sincerely,
BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, P.E.
Senior Engineer

cc: Mr. Paresh Khatri, Alameda County Environmental Health Services (Submitted via ACEHS ftp site)
Mr. Paul Supple, Atlantic Richfield Company (Submitted by ENFOS)



5 November 2008

Project No. 06-08-606

Resident
17372 Via Magdalena
San Lorenzo, CA 94580

Re: Private Well Status, 17372 Via Magdalena, San Lorenzo, California

Dear Resident of 17372 Via Magdalena:

Broadbent & Associates, Inc. (BAI) is an environmental consulting firm currently working for Atlantic Richfield Company. Our client has been directed by the Alameda County Environmental Health Services (ACEHS) to perform a status review of private wells within the vicinity of nearby ARCO Gasoline Service Station No.608, located at 17601 Hesperian Boulevard, San Lorenzo, California. Historic records indicate that a private drinking water or irrigation supply well was once operated at your property and may have previously been sampled by a consultant for Atlantic Richfield Company. The status of private wells has been requested by ACEHS. Please complete the following information regarding the current status of the well previously or currently located on your property:

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