



Atlantic Richfield Company
(a BP affiliated company)

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20 May 2009

Re: Soil & Ground-Water Investigation Report
Atlantic Richfield Company Station No. 2035
1001 San Pablo Avenue
Albany, California
ACEH Case No. RO0000100

“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 Manger

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1:06 pm, May 20, 2009

Alameda County
Environmental Health



SOIL & GROUND-WATER INVESTIGATION REPORT

Atlantic Richfield Company Station No. 2035
1001 San Pablo Avenue
Albany, California
ACEH Case No. RO0000100

Prepared for:

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

Prepared by:



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20 May 2009

Project No. 06-88-610

20 May 2009

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

Attn.: Mr. Paul Supple

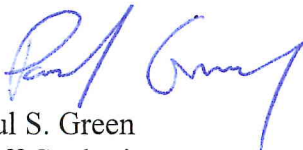
Re: Soil & Ground-Water Investigation Report, Atlantic Richfield Company Station No.2035,
1001 San Pablo Avenue, Albany, California; ACEH Case #RO0000100


Dear Mr. Supple:

Broadbent & Associates, Inc. (BAI) is pleased to submit this *Soil & Ground-Water Investigation Report* for Atlantic Richfield Company Station #2035 (herein referred to as Station No.2035) located at 1001 San Pablo Avenue, Albany, California (Site). This report presents a description of field activities conducted and results obtained from the advancement of three soil borings and subsequent installation of ground-water monitoring wells at the Site on 25 and 26 March 2009. This work was conducted in accordance with the *Work Plan for Soil & Water Investigation* (BAI, 5 January 2009), as approved by Alameda County Environmental Health (ACEH) in their letter dated 19 February 2009.

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

Sincerely,
BROADBENT & ASSOCIATES, INC.


Paul S. Green
Staff Geologist


Thomas A. Venus, P.E.
Senior Engineer



Enclosures

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

SOIL & GROUND-WATER INVESTIGATION REPORT

Atlantic Richfield Company Station No.2035

1001 San Pablo Avenue

Albany, 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 Reports

SOIL & GROUND-WATER INVESTIGATION REPORT

Atlantic Richfield Company Station No.2035

1001 San Pablo Avenue

Albany, 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* for additional soil and ground-water characterization at the Atlantic Richfield Company Station No.2035, located at 1001 San Pablo Avenue, Albany, California (Site). This on-site soil investigation was completed to evaluate the effectiveness of the remediation system that operated between 1997 and 2004 by assessing the presence of residual petroleum hydrocarbon-impacted soil, and construction of new, more-appropriately screened monitoring wells. Investigation activities were conducted in accordance with the BAI *Work Plan for Soil & Water Investigation* dated 5 January 2009, as approved with additional comments by the Alameda County Environmental Health (ACEH) in their response letter dated 19 February 2009. 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, Conclusions and Recommendations.

2.0 SITE BACKGROUND

The Site is an active ARCO-brand retail gasoline service station located on the southeastern corner of San Pablo Avenue and Marin Avenue in Albany, 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 with four gasoline underground storage tanks (USTs) with associated piping, and four pump dispensers on two dispenser islands. The Site is primarily covered with asphalt or concrete surfacing.

Numerous subsurface investigations and remedial activities have been conducted on-site since 1989. A comprehensive Site history can be found within the *Work Plan for Soil & Water Investigation* prepared by BAI dated 5 January 2009. 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 northwestern portion of the Berkeley Sub-Area in the East Bay Plain of the San Francisco Basin. The Berkeley Sub-Area contains a series of alluvial fans deposited on a west sloping bedrock surface. The alluvial deposits range from 10 to 300 feet deep, averaging 100 to 200 feet deep. According to this document, there is no historical evidence that ground-water supplies are sufficient for municipal use (primarily due to low recharge rates) and that there are no reported clay units that function as major aquitards. However, in the Berkeley Sub-Area the first encountered ground water is frequently reported as being semi-confined, particularly in West Berkeley.

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. The nearest surface water drainage is Cordornices Creek, located approximately 1,100 feet south of the Site. The overall general flow direction of Cordornices Creek is from east to west.

The Site elevation is approximately 45 feet above mean sea level. The water table fluctuates seasonally and over time with recorded static depths to water in monitor wells at the Site ranging between a historic minimum depth below top of casing measuring points of 5.69 feet (MW-3 on 1 February 2000) and maximum of 20.61 feet (RW-1 on 8 November 1991). Historically, depth-to-water measurements have typically ranged between approximately seven and 12 feet. Ground-water flow direction during the fourth quarter 2008 monitoring event on 24 November 2008 was to the west at a gradient of 0.02 ft/ft, typical according to the monitoring record.

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.

Geologic data derived from on-site borings generally indicates fine-grained silty and gravelly clay to silty and gravelly sand layer between approximately one and ten feet below ground surface (bgs). A coarser-grained clayey to silty sand and sandy gravel water-bearing zone underlies the sand and clay layer between approximately eight and 15 feet bgs. A clayey to gravelly sand layer is present between approximately 15 and 30 feet bgs. Silty clays were observed in several borings beyond 30 feet bgs.

4.0 FIELD ACTIVITIES PERFORMED

This on-site soil investigation was completed to evaluate the effectiveness of the remediation system that operated between 1997 and 2004 by assessing the presence of residual petroleum hydrocarbon-impacted soil, and construction of new, more-appropriately screened monitoring wells. On 25 and 26 March 2009, Stratus oversaw RSI Drilling, Inc. advance three hollow-stem auger soil borings (identified as B-28, B-29, and B-30) at the Site. Soil boring B-28 (completed as well MW-7) was located in the general vicinity of the previously collected soil sample S-10-B16, approximately 17 feet west-southwest of well MW-1 and approximately five feet southeast of well VW-3 (S-10-B16 sample location). Soil boring B-29 (completed as well MW-8) was located in the general vicinity of previously collected soil sample S-1-PL4, approximately seven feet east-southeast of well MW-2 and approximately 18 feet west of well VW-5. Soil boring B-30 (completed as well MW-9) was located in the general vicinity of the former waste oil tank, approximately 18 feet southeast of well MW-3 and approximately 23 feet

north-northwest of well MW-5. 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 6.5 ft bgs using an air knife rig on 25 March 2009.

4.2 Soil Boring Advancement and Soil Sampling

On 26 March 2009, Stratus field personnel observed RSI Drilling (RSI) of Woodland, California advance three soil borings (B-28, B-29, and B-30). RSI utilized a CME-75 hollow-stem auger drill rig to collect depth-discrete samples at the soil boring locations to a maximum depth of 19 ft bgs. Physical soil samples were collected at specific depths for laboratory analysis based on field observations and recommendations from ACEH. Ground-water monitoring wells were installed in each soil boring.

Soil boring B-28 was advanced to a total depth of 16 ft bgs. Soil samples were collected from boring B-28 at 8, 13, 14, and 15 ft bgs. Reportedly, no obvious visual contamination was observed. Screening with the photo-ionization detector (PID) found contamination by volatile organic compounds (VOCs) between approximately 13 and 15 ft bgs, with up to 1,143 parts per million (ppm) at 14 ft bgs. Sandy clay was observed from approximately 6.5 to eight ft bgs, and from approximately 15 to 16 ft bgs, the total depth explored to. Clay was observed from approximately eight to 9.5 ft bgs. Clayey sands were encountered from approximately 9.5 to 11 ft bgs. Sandy clay with gravel was observed from approximately 11 to 13 ft bgs. Silty sand was encountered from approximately 13 to 14 ft bgs. Following completion of soil boring advancement and collection of samples, well installation activities began for well MW-7.

Soil boring B-29 was advanced to a total depth of 19 ft bgs. Soil samples were collected from boring B-29 at 11, 13, 16, and 19 ft bgs. Reportedly, no obvious visual contamination was observed. Screening with the PID found contamination by VOCs between approximately 13 and 16 ft bgs, with up to 2,158 ppm at 13 ft bgs. Sandy clay with gravel was observed between approximately 6.5 and 11 ft bgs, 12 ft bgs to 14 ft bgs, and 15 ft bgs to 16.5 ft bgs. Clay was encountered from approximately 11 to 12 ft bgs and 14 to 15 ft bgs. Clayey sand was observed from approximately 16.5 to 18 ft bgs. Sandy clay sand was encountered from approximately 18 to 19 ft bgs, the total depth explored to. Following completion of soil boring advancement and collection of samples, well installation activities began for well MW-8.

Soil boring B-30 was advanced to a total depth of 16 ft bgs. Soil samples were collected from boring B-30 at 8, 9, 11, and 13 ft bgs. Reportedly, no obvious visual contamination was

observed. Screening with the PID found contamination by VOCs between approximately seven and 12 ft bgs, with up to 149 ppm at seven ft bgs. Sandy clay with gravel was observed between approximately 6.5 and eight ft bgs, nine ft bgs to 10.5 ft bgs, and 11.5 ft bgs to 16 ft bgs, the total depth explored to. Clay was encountered from approximately eight to nine ft bgs. Silty sand with clay was encountered from approximately 10.5 to 11.5 ft bgs. Following completion of soil boring advancement and collection of samples, well installation activities began for well MW-9.

4.3 Monitoring Well Construction

Monitoring wells MW-7 (B-28), MW-8 (B-29), and MW-9 (B-30) were constructed using flush-threaded, four-inch diameter Schedule 40 PVC pipe. The factory-slotted 0.010-inch screen interval extends from six ft bgs to 16 ft bgs in wells MW-7 and MW-9, and from six ft bgs to 19 ft bgs in well MW-8. The filter pack surrounding the screen intervals consists of silica sand from four ft bgs to 16 ft bgs in wells MW-7 and MW-9, and from four ft bgs to 19 ft bgs in well MW-8. Each well was sealed with bentonite from two ft bgs to four ft bgs and with Portland cement grout from ground surface to two ft bgs. Each wellhead was secured with a locking well cap, and protected by a traffic-rated well vault set flush with the local ground surface. Additional details of well construction are provided in the field notes, lithologic boring logs and well construction logs provided in Appendix B. Well construction information was uploaded to the GeoTracker AB2886 database. Copies of GeoTracker upload confirmation reports are provided within Appendix C.

4.4 Well Development and Surveying

Monitor wells MW-7, MW-8 and MW-9 were developed on 1 April 2009. Well development activities for each well consisted of surging and bailing the well until relatively silt-free water was removed. Each well was then purged using a submersible pump. Each well ran dry after approximately 3.5 of the targeted 10 wetted casing volumes were purged. After allowing each well to recharge, an additional three well casing volumes were purged from each well.

The site was resurveyed, incorporating new wells MW-7, MW-8, and MW-9, by Wood Rodgers of Sacramento, California on 20 April 2009. The survey map from Wood Rodgers is provided within Appendix B. The well survey information was uploaded to the GeoTracker AB2886 database. Copies of the GeoTracker upload confirmation reports (GEO_MAP, GEO_XY, and GEO_Z files) are provided within Appendix C.

Ground-water samples were collected during the second quarter ground-water monitoring event and will be reported under a separate cover.

4.5 Investigation-Derived Residuals Management

Residual solids and liquids generated during the Site investigation activities were stored temporarily onsite in Department of Transportation-approved 55-gallon drums 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 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), Tert-Butyl Alcohol (TBA), 1,2-Dichloroethane (1,2-DCA), and 1,2-Dibromoethane (EDB) using EPA Method 8260B. During the GRO analyses, the laboratory noted an unknown hydrocarbon(s) in samples MW-9 8', MW-9 9', and MW-9 11'. No other significant irregularities were reported during laboratory analysis of the soil boring samples. Soil laboratory analytical results are also summarized in tabular format below.

**Laboratory Analytical Results of Soil Boring Samples
(milligrams per kilogram, mg/kg)**

Well ID	GRO	B	T	E	X	1,2-DCA	MTBE	TBA
MW-7 8'	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010
MW-7 13'	200	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<1.0
MW-7 14'	860	<0.10	<0.10	1.9	0.10	<0.10	<0.10	<1.0
MW-7 15'	5.2	<0.0010	<0.0010	0.024	0.020	<0.0010	<0.0010	<0.010
MW-8 11'	4.1	0.51	<0.10	0.29	1.2	<0.10	<0.10	<1.0
MW-8 13'	74	1.8	1.7	4.3	20	<0.10	<0.10	<1.0
MW-8 16'	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	0.0021	0.0013	0.068
MW-8 19'	<0.50	0.0011	<0.0010	<0.0010	<0.0010	<0.0010	0.0074	0.021
MW-9 8'	11	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010
MW-9 9'	110	<0.0010	0.0013	<0.0010	0.0010	<0.0010	<0.0010	<0.010
MW-9 11'	61	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010
MW-9 13'	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010

Petroleum hydrocarbon concentrations above the various laboratory method reporting limits are represented with bold-typed font. The tested analytes were not detected above their respective reporting limits in two of the 12 soil samples collected (MW-7 8' and MW-9 13').

Concentrations of EDB, DIPE, ETBE, and TAME are not included in the above table as the results for these constituents were below their respective laboratory reporting limits for each sample. 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 CONCLUSIONS

On behalf of the Atlantic Richfield Company, RM – a BP affiliated company, BAI prepared this Soil & Water Investigation Report for Station No.2035, located at 1001 San Pablo Avenue,

Albany, California. Investigation activities were conducted in accordance with the BAI *Work Plan for Soil & Water Investigation* dated 5 January 2009, as approved with comments by the ACEH in their response letter dated 19 February 2009. Based on the information obtained and presented in this soil and ground-water investigation report, BAI concludes the following:

- No petroleum hydrocarbons were detected in the soil samples collected at eight ft bgs from boring B-28/MW-7 or at 13 ft bgs from boring B-30/MW-9.
- Up to 860 mg/kg GRO was detected in the soil samples collected from boring B-28/MW-7 in the vicinity of historic soil sample S-10-B16, which previously had contained Total Petroleum Hydrocarbons in the gasoline range (TPH-g) at 4,300 mg/kg (RESNA, 30 November 1992).
- Up to 1.8 mg/kg Benzene was detected in the soil samples collected from boring B-29/MW-8 in the vicinity of historic soil sample S-1-PL4, which previously had contained Benzene at 36 mg/kg (RESNA, 6 March 1991).
- The above listed concentrations indicate that the residual hydrocarbons in on-site soil have significantly decreased since the operation of a soil vapor extraction (SVE) system between 1997 and 2004.
- Well screen intervals for wells MW-7, MW-8, and MW-9 are inclusive of minimum and maximum ranges of depth to ground-water levels at the Site, in lieu of wells MW-1, MW-2, and MW-3, respectively, which routinely had submerged well screen intervals.

7.0 RECOMMENDATIONS

Based on the information obtained and presented in this soil and ground-water investigation report, BAI makes the following recommendations:

- Based on the analytical results obtained, the soil vapor extraction remediation system should be permanently shut down. Ground-water treatment should continue by monitored natural attenuation.
- The current ground-water monitoring and sampling schedules should be maintained with new monitoring wells MW-7, MW-8, and MW-9 replacing wells MW-1, MW-2, and MW-3.

8.0 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 ground-water

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.

9.0 REFERENCES

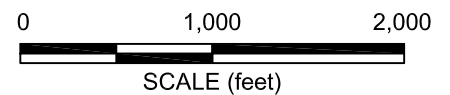
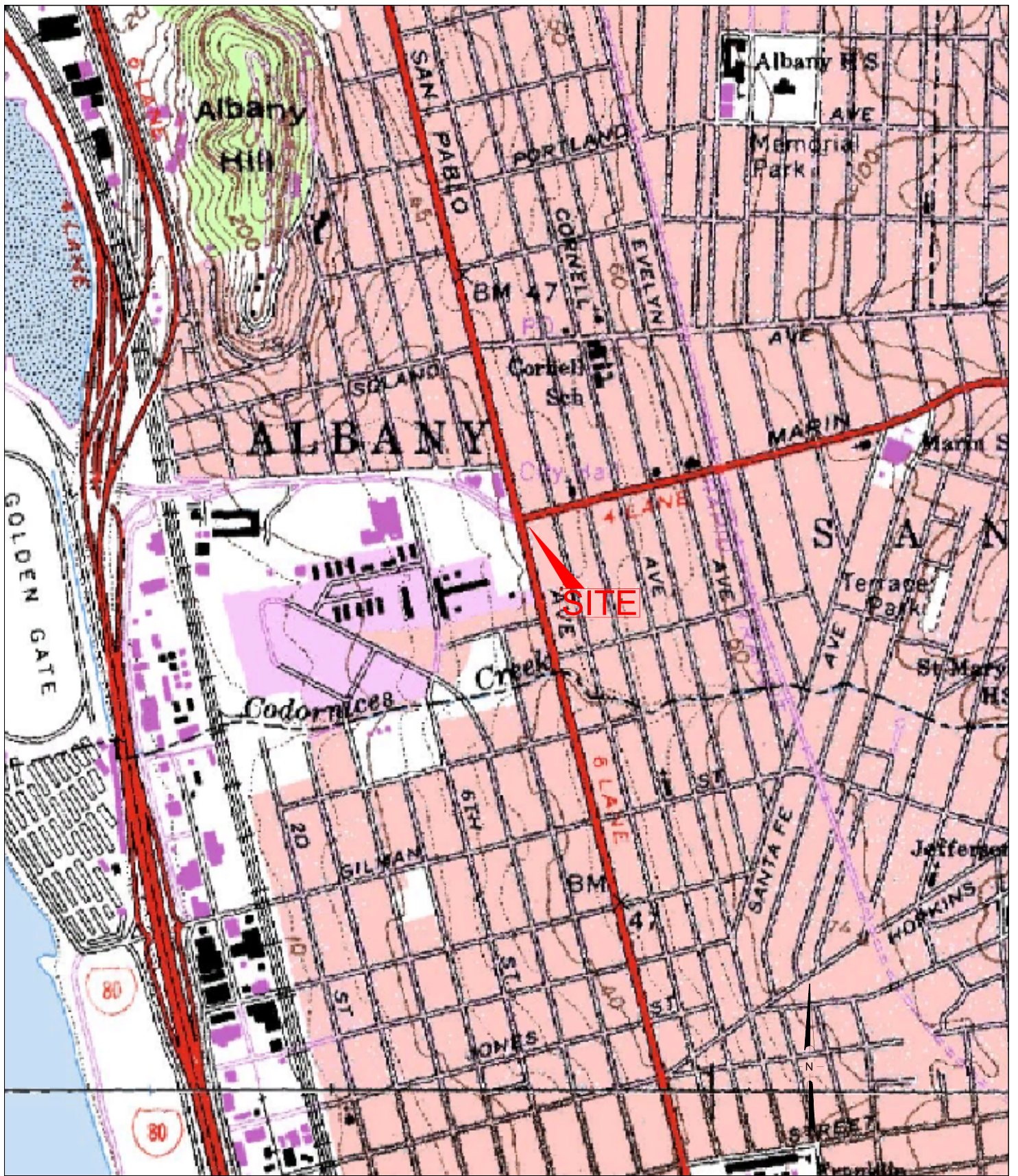
ACEH, 19 February 2009. *Fuel Leak Case No. RO 0000100 and GeoTracker Global ID T0600100081, ARCO #02035, 1001 San Pablo Ave., Albany, CA 94706.* Letter from Mr. Paresh Khatri (ACEH) to Mr. Paul Supple (Atlantic Richfield Company) approving work plan with technical comments.

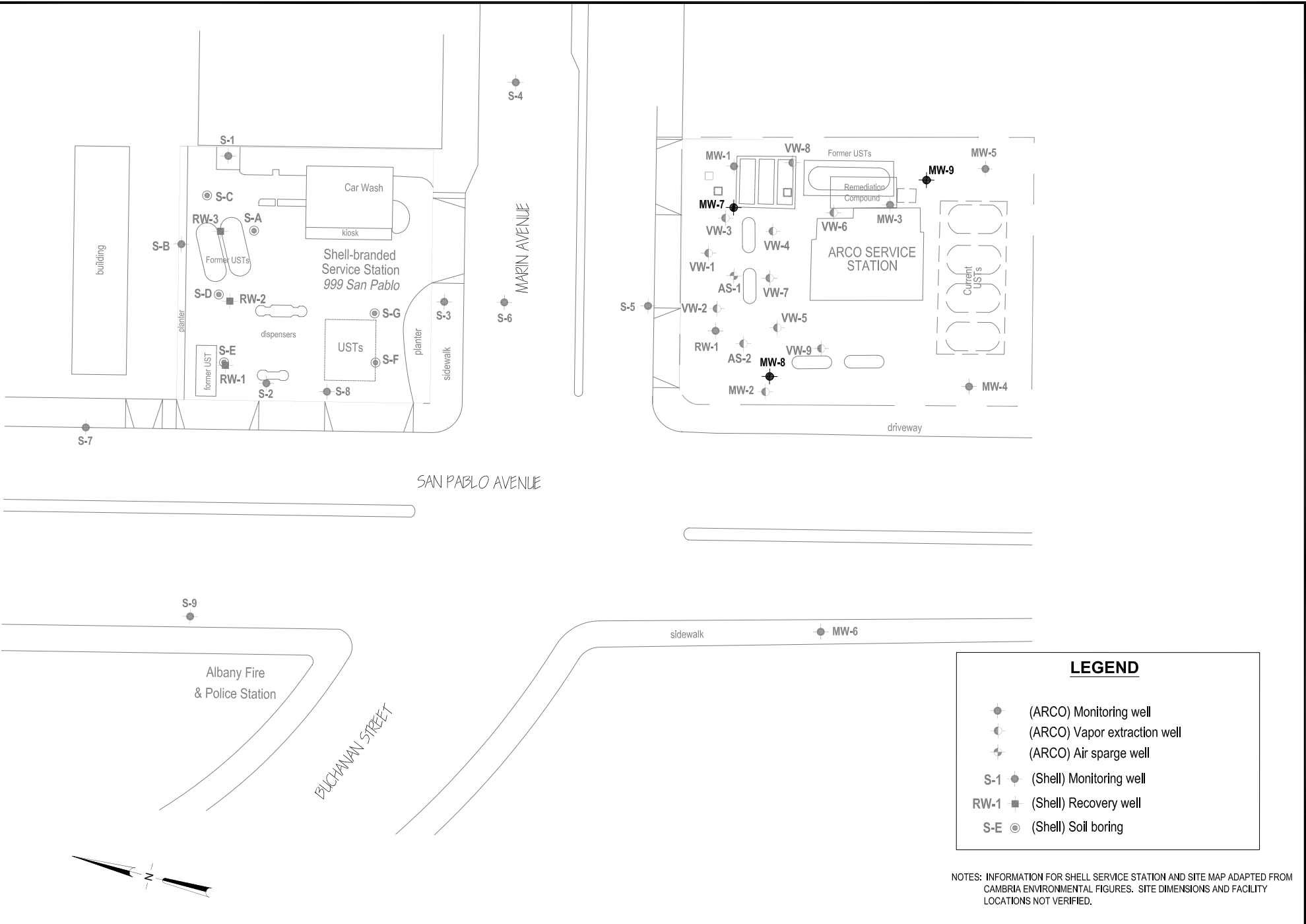
Broadbent & Associates, Inc., 5 January 2009. *Work Plan for Soil & Water Investigation, Atlantic Richfield Company Station No. 2035, 1001 San Pablo Ave., Albany, CA, ACEH Case No. R00000100.*

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.*

RESNA, 6 March 1991. *Subsurface Environmental Investigation and Pump Test, ARCO Station #2035, 1001 San Pablo Avenue, Albany, CA.*

RESNA, 30 November 1992. *Additional Subsurface Environmental Investigation and Vapor Extraction Test, ARCO Station #2035, 1001 San Pablo Avenue, Albany, CA.*

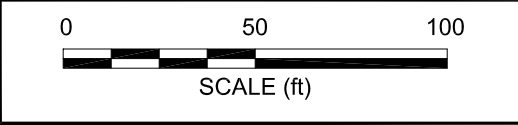




LEGEND

- (ARCO) Monitoring well
- (ARCO) Vapor extraction well
- (ARCO) Air sparge well
- (Shell) Monitoring well
- (Shell) Recovery well
- (Shell) Soil boring

NOTES: INFORMATION FOR SHELL SERVICE STATION AND SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California
Project No.: 06-08-610 Date: 5/13/09

ARCO Service Station #2035
1001 San Pablo Avenue
Albany, California

Site Plan with New
Monitoring Well Locations

APPENDIX A

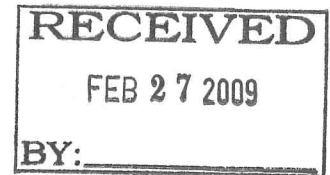
RECENT REGULATORY CORRESPONDENCE



ENVIRONMENTAL HEALTH SERVICES
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February 19, 2009

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



Subject: Fuel Leak Case No. RO0000100 and GeoTracker Global ID T0600100081, ARCO #02035, 1001 San Pablo Avenue, Albany, CA 94706

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 Ground-Water Investigation," dated January 5, 2009, which was prepared by Broadbent & Associates (BAI) for the subject site. BAI proposes advancing three borings to characterize subsurface soil following the soil vapor extraction system operation and installing three 4-inch diameter groundwater monitoring wells to collect representative groundwater samples at the site. Boring B-28 is proposed in the general vicinity of sample S-10-B16 and well MW-1, approximately 15 feet west-southwest of well MW-1 and five feet east of well VW-3 (S-10-B16 sample location). Boring B-29 is proposed in the general vicinity of sample S-1-PL4, approximately five feet east-southeast of well MW-2 and five feet northwest of the eastern dispenser islands. Boring B-30 is proposed in the general vicinity of existing well MW-3 in order to install supplemental well MW-9.

ACEH generally concurs with the proposed scope of work and requests that you address the following technical comments, perform the proposed work, and send us the technical reports described below.

TECHNICAL COMMENTS

1. **Monitoring Well Construction and Hydrogeologic Setting** – A review of the boring logs indicate that a sandy, gravelly unit is encountered at approximately 8 to 14 feet bgs in several borings installed across the site. BAI proposes to construct groundwater monitoring wells with screened intervals from 6 to 20 feet bgs. The 14 feet screened interval appears lengthy for site conditions considering that the wells may penetrate through a less permeable unit (i.e. clay) encountered from approximately 15 to 18 feet bgs, which is underlain by a more permeable sandy unit. This appears evident in boring logs for B-1, B-2, B-3, B-5, B-8, B-10, B-12, B-14, and B-15, to name a few. Therefore, in an interest to obtain representative water samples from the first water-bearing zone, it is recommended that the monitoring well screened intervals be limited or modified based on site conditions encountered. Additionally, based on the boring logs, it appears that multiple water-bearing zones may be present at the site. Therefore, it may be advantageous to collect depth discrete groundwater samples or install multi-level monitoring wells, monitoring well clusters, or systems capable of monitoring

multiple depths for verification, if it is determined that multiple water-bearing units exists. Preparation of cross-sections may aid in depicting and evaluating hydro-geologic conditions at the site. Please include a detailed discussion of the hydro-geologic conditions encountered and rationale for well construction in the 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:

- **May 20, 2009** – Soil and Water Investigation Report
- **July 30, 2009** – Quarterly Monitoring Report (2nd Quarter 2009)
- **January 30, 2010** – Quarterly Monitoring Report (4th 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 pareskhatri@acgov.org.

Sincerely,



Paresh C. Khatri
Hazardous Materials Specialist



Donna L. Drogos, PE
Supervising Hazardous Materials Specialist

Mr. Supple
RO0000100
February 19, 2009, Page 4

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

May 6, 2009

Mr. Tom Venus
Broadbent & Associates, Inc.
1324 Mangrove Avenue
Chico, California 95926

Re: Monitoring Well Installation and Development Data Package, Former ARCO Service Station No. 2035, located at 1001 San Pablo Avenue, Albany, California (field activities performed March 12th through April 1st, 2009)

General Information

Data Submittal Prepared / Reviewed by: Collin Fischer & Scott Bittinger / Jay Johnson
Phone Number: (530) 676-2062 / (530) 676-6000

Date: March 12, 2009

On-Site Supplier Representative: Collin Fischer

Scope of Work Performed: Health and safety meeting with utility locating subcontractor (Cruz Brothers Locators). Clear 3 boring locations and sketch utility locations on site map, per ground disturbance permit requirements. Mark site for Underground Service Alert (USA) clearance.

Variations from Work Scope: The location of well boring MW-7 was moved 6 feet south-southeast of the location presented in the Broadbent and Associates work plan in order to avoid a remediation trench. The location of well boring MW-9 was moved 6 feet south-southeast of the location presented in the Broadbent and Associates work plan in order to avoid an underground gas line.

Date: March 23, 2009

On-Site Supplier Representative: Levi Ford

Scope of Work Performed: Complete Health and Safety forms. Check USA markings and update site map and USA tracking sheet, per ground disturbance procedure requirement.

Variations from Work Scope: None noted

Date: March 25, 2009

On-Site Supplier Representative: Collin Fischer

Scope of Work Performed: Health and safety meeting with air knife subcontractor (RSI Drilling). Air knife 3 boring locations (MW-7, MW-8, and MW-9) to 6.5 feet bgs.

Variations from Work Scope: None noted

May 6, 2009

Date: March 26, 2009

On-Site Supplier Representative: Collin Fischer and Levi Ford

Scope of Work Performed: Health and safety meeting with drilling subcontractor (RSI Drilling). Set up exclusion zone. Drill and install 1 monitoring well (MW-8) to 19' bgs., and 2 monitoring wells (MW-7 and MW-9) to 16' bgs.

Variations from Work Scope: Well depths and screening intervals were adjusted slightly from work plan, as appropriate, based on soil types encountered and to meet Alameda County Health Care Agency's request in the work plan approval letter for this scope of work.

Date: April 1, 2009

On-Site Supplier Representative: Collin Fischer

Scope of Work Performed: Complete health & safety forms. Developed 3 monitoring wells (MW-7, MW-8, and MW-9).

Variations from Work Scope: Less than 10 well casing volumes were purged from the wells due to slow groundwater recharge rates. Initially, approximately 3.5 well casing volumes were removed from each well. After allowing each well to recharge, an additional 3 well casing volumes were purged from the each well.

This submittal presents data collected in association with the installation and development of three monitoring wells. The attachments include field data sheets, soil boring logs, DWR well completion reports, a drilling permit, a site plan, an underground utility location map, standard field procedures for well development work, certified analytical results, and chain-of-custody records. 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 interpretation or conclusions or recommendations.

May 6, 2009

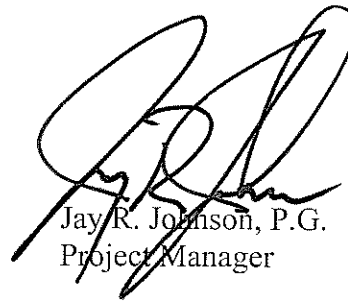
Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.

Sincerely,

STRATUS ENVIRONMENTAL, INC.



Scott G. Bittinger, P.G.
Project Geologist



Jay R. Johnson, P.G.
Project Manager



Attachments:

- Field Data Sheets
- Soil Boring logs
- DWR Well Completion Reports
- Drilling permit
- Site Plan
- Underground Utility Location Map
- Field Procedures for Well Development
- Certified Analytical Results
- Chain-of-Custody Records

cc: Paul Supple, BP/ARCO

AR10 2035

SUNNY
CLEAR
3/2/09

- 1300 → ONSITE, SAFETY MEETING
- 1315 → BEGIN LOCATING UTILITIES, CLEAR 3 BODING LOCATIONS, LOCATE ALL MISC UTILITIES @ SITE (E GAS, TEL, SWG, COMM, SEWER) & MARK ON MAP.
- 1445 → MW-7 & MW-9 MUST BE MOVED DUE TO CONFLICTS
MW-7 MOVED 16' SSE
MW-9 MOVED 16' SSE AS WELL
ALL OTHER UTILITIES LOCATED & MARKED ON MAP.
- 1500 → OFFSITE

Collin Fri

STRATUS ENV., INC.

Field Data Sheet

Site: ARCO 2035

Date: 3/23/2009

Personnel on site: Levi Ford

Weather Conditions: Sunny, Clear

Notes:

1500 -> onsite, fill out safety paperwork

-> update USA fracking sheet & mark

on site plan per ground disturbance procedures

1530 -> OFFSITE

L. Ford

Stratus Env., INC.

Field Data Sheet

Site: ALCO 2035

Date: 3/25/09

Personnel on site: Colleen Forester, PSI Drilling

Weather Conditions: Sunny, Clear

Notes:

0800 → OFFSITE SAFETY MEETING

0930 → SET UP ON (MW-7) & BEGIN AIR LIFTING.
JACKHAMMER & CHISEL HOLE.

1045 → (MW-7) CLEARED TO 6.5' BGS BY 14" DIAMETER.
PSI OFFSITE TO GET BACKFILL SAND.

1145 → ^{PSI} ONSITE, UNLOAD SAND, FILL (MW-7) & PATCH SURFACE.

1215 → MOVE TO (MW-9), JACKHAMMER & START CLEANING.

1230 - 1300 → LUNCH

1300 → RESUME CLEANING (MW-9), TO 6.5' BGS.

1400 → TWO @ ~ 6' BGS, CLEARED TO 6.5' BGS BUT TWO
REARS DRILLING

1415 → BACKFILL & PATCH SURFACE

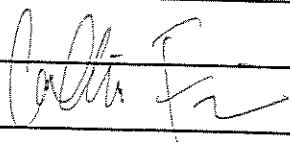
1440 → MOVE TO (MW-8), JACKHAMMER & START CLEANING.

1600 → (MW-8) CLEARED 6.5' X 14". FILL & PATCH.

1630 → EMPTY TANK INTO DRUMS, LABEL DRUMS
& CLEANUP.

1715 → SECURE SITE

1730 → OFFSITE



STRATUS B.V., INC.

Field Data Sheet

Site: ALCO 2035

Date: 3/26/09

Personnel on site: Colin Farmer, Leon Fied, PSI

Weather Conditions: Sunny, Clear.

Notes:

0700 → ON SITE, SAFETY MEETING, SUTLWATE, SET UP ON (MW-8).

SET UP DELIMITATORS & BENCH MARK ZONE.

0800 → Tower up & begin drilling.

0830 → NO CORRE, Recovering w/ 1st Sample, Try split spoon to permanent sample.

→ NO SAMPLE FROM 6-5-1, START SPLIT SPOON @ 9' TO TERMINATION.

0945 → CALL SCOTT @ 16', TELL ME TO PROCEED

0950 → CALL @ 17.5', TOLD TO PROCEED TO 19' @ 19' CALL OFFICE

TOLD TO SET WELL @ 6-12' BGS SCREEN

1015 → SET WELL @ 11' BGS

MW-8	SCREEN 6-19
	SAND 4-19
	BENT 2-4
	GRAVEL 0-2

1100 → BENTONITE ADDED, PULL FINAL AUGER & CLEANUP.

1110 → MOVE HQ TO (MW-7) & SET UP.

1315 → START SETTING WELL @ 16' BGS.

MW-7	SCREEN 6-16
	SAND 4-16
	BENT 2-4
	GRAVEL 0-2

1430 → DONE W/ (MW-7), MOVE TO (MW-9).

1500 → START DRILLING @ (MW-9) AFTER SET UP.

1600 → @ DEPTH, SET WELL @ 16' BGS

MW-9	SCREEN 6-16
	SAND 4-16
	BENT 2-4
	GRAVEL 0-2

1700 → WELL SET, TOWER DOWN & DECON.

1730 → CLEAN UP SITE & SET WELL BOXES & GRAVEL

→ FINAL DECON & CLEANUP.

1830 → SECURE SITE

1845 → OFFSITE

LOW CAPTURE @ 1615

Colin F.

STRATEGIC ENV, INC.



Site Address 1001 SAN PABLO AVENUE
 City ALBANY CA.
 Sampled by: [Signature]
 Signature [Signature]

Site Number W-102035
 Project Number E2035
 Project PM J. SCHINSON
 DATE 4/1/09

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record		Field Data	
Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Total Depth (feet)	Water column (feet)	Diameter (inches)	Multiplier	3 casing volumes (gallons)	Actual water purged (gallons)	No Purge	Bailer	Pump	other	DTW at sample time (feet)	Sample I.D	Sample Time	DO (mg/L)
MW-7	1410		6.35	15.70	8.85	4"	2	18	(21)		X	X	BAILER		(14-21) Gallons		5.87
MW-8	1235		9.39	19.60	10.21	10 casings	2	76.67 → 59 →	21		X	X	BAILER		(15-21) Gallons		7.75
MW-9	1540		8.70	15.20	6.5	4"	2	18	(15)		X	X	BAILER		(6-18) Gallons		6.75
						10 casings	2	76.67 → 44 →	6								

Multiplier
 2" = 0.5 3" = 1.0 4" = 2.0 6" = 4.4

Please refer to groundwater sampling field procedures
 pH/Conductivity/temperature Meter - Oakton Model PC-10
 DO Meter - Oakton 300 Series (DO is always measured before purge)

CALIBRATION DATE _____
 pH _____
 Conductivity _____
 DO _____

time				
purge stop time				
Well ID	MW-7			
purge start time	1420			
	Temp C	pH	cond	gallons
time	1420	17.4	7.50	718 0
time	1430	17.2	7.40	748 7
time	1440	17.4	7.30	582 14
time	1515	17.4	7.45	564 21
purge stop time				

time				
purge stop time				
Well ID	MW-8			
purge start time	1240			
	Temp C	pH	cond	gallons
time	1245	21.1	7.35	728 0
time	1325	18.2	7.25	650 15
time	1340	18.1	7.14	609 17
time	1400	18.1	7.17	612 21
purge stop time				

Well ID	MW-9			
purge start time	1540			
	Temp C	pH	cond	gallons
time	1545	17.6	7.65	496 0
time	1555	17.3	7.32	421 6
time	1620	17.3	7.40	455 12
time	1640	17.4	7.34	460 15
purge stop time				

Well ID				
purge start time				
	Temp C	pH	cond	gallons
time				
time				
time				
time				
time				
time				
purge stop time				

Well ID				
purge start time				
	Temp C	pH	cond	gallons
time				
time				
time				
time				
time				
purge stop time				

Well ID				
purge start time				
	Temp C	pH	cond	gallons
time				
time				
time				
time				
time				
time				
purge stop time				



SOIL BORING LOG

Boring No. MW-7

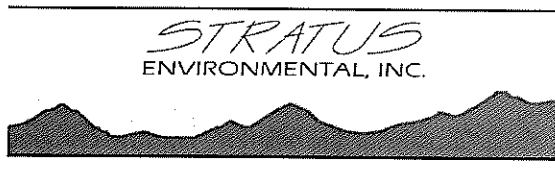
Sheet: 1 of 1

Client	ARCO 2035	Date	March 26, 2009
Address	1001 San Pablo Avenue Albany, CA	Drilling Co.	RSI Drilling rig type: CME-75
Project No.	E2035	Driller	Ramiro
Logged By:	Collin Fischer	Method	Hollow Stem Auger Hole Diameter: 10 inches
Well Pack	sand: 4 ft. to 16 ft. bent.: 2 ft. to 4 ft. grout: 0 ft. to 2 ft.	Sampler:	18-inch length split spoon
Well Construction	Casing Material: Schedule 40 PVC	Screen Interval:	6 ft. to 16 ft.
	Casing Diameter: 4 in.	Screen Slot Size:	0.010-in.
Depth to GW:	▽ first encountered: 10' bgs.	static	▼

Sample Type	Sample No.		Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
				Time	Recov.					
									Cleared to 6.5' bgs. with air knife	
							1			
							2			
							3			
							4			
							5			
							6			
							7			
S	MW-7 8'		2				8	CL	Sandy clay, CL, dark brown, moist, medium stiff, medium plasticity 80% clay, 20% fine grained sand	0
			5	1200	100		9		Clay, CL, dark grayish brown, moist, stiff, medium plasticity 100% clay	
			6				10			
			5				11	SC	Clayey sand, SC, dark grayish brown, moist to wet, very loose 60% fine to medium grained sand, 40% clay	0
			4				12			
			1				13	CL	Sandy clay with gravel, CL, dark grayish brown, moist, hard, low plasticity 50% clay, 30% coarse grained sand, 20% fine gravel	0
			1				14			
			3				15	SM	Silty sand, SM, dark gray, wet, loose, 90% medium grained sand, 10% silt	1143
			10				16			
S	MW-7 13'		14				17	CL	Sandy clay, CL, dark yellowish brown, moist, hard, low plasticity 60% clay, 40% fine to medium grained sand	136
			23	1225	100		18			
S	MW-7 14'		3				19			
			5	1245	100		20			
S	MW-7 15'		15							
			34	1255	100					
			50/6"							

Recovery _____
Sample _____

Comments:



SOIL BORING LOG

Boring No. MW-8

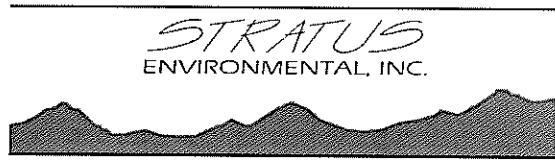
Sheet: 1 of 1

Client	ARCO 2035	Date	March 26, 2009
Address	1001 San Pablo Avenue Albany, CA	Drilling Co.	RSI Drilling rig type: CME-75
Project No.	E2035	Driller	Ramiro
Logged By:	Collin Fischer	Method	Hollow Stem Auger Hole Diameter: 10 inches
		Sampler:	18-inch length split spoon
Well Pack	sand: 4 ft. to 19 ft. bent.: 2 ft. to 4 ft. grout: 0 ft. to 2 ft.	Well Construction	Casing Material: Schedule 40 PVC Screen Interval: 6 ft. to 19 ft. Casing Diameter: 4 in. Screen Slot Size: 0.010-in. Depth to GW: ▽ first encountered: 16.5' bgs. static

Sample Type	Sample No.	Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
			Time	Recov.					
								Cleared to 6.5' bgs. with air knife	
S	MW-8 11'	4 7	0840	100				Sandy clay with gravel, CL, dark brown, moist, stiff, medium plasticity 75% clay, 30% medium to coarse grained sand	0
		14 11						Clay, CL, dark grayish brown, moist, very stiff, medium plasticity 100% clay	
S	MW-8 13'	15 24	0845	100			CL	Sandy clay with gravel, CL, dark grayish brown, moist, hard, low plasticity 50% clay, 30% coarse grained sand, 20% fine gravel	2158
		13 14							
		17 21						Clay, CL, dark grayish brown, moist, hard, medium plasticity 100% clay	136
S	MW-8 16'	21 13	0912	100				Sandy clay with gravel, CL, dark grayish brown, moist, hard, low plasticity 50% clay, 30% coarse grained sand, 20% fine gravel	85
		14 16							
		6 9					SC	Clayey sand, SC, dark yellowish brown, wet, medium dense 65% fine to medium grained sand, 35% clay	0
S	MW-8 19'	13	0955	100			CL	Sandy clay, CL, dark yellowish brown, moist to wet, very stiff medium plasticity, 60% clay, 40% fine to medium grained sand	0

Recovery _____
Sample _____

Comments:



SOIL BORING LOG

Boring No. MW-9

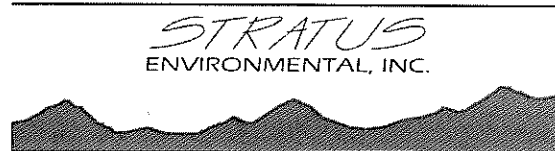
Sheet: 1 of 1

Client	ARCO 2035	Date	March 26, 2009
Address	1001 San Pablo Avenue Albany, CA	Drilling Co.	RSI Drilling rig type: CME-75
Project No.	E2035	Driller	Ramiro
Logged By:	Collin Fischer	Method	Hollow Stem Auger Hole Diameter: 10 inches
		Sampler:	18-inch length split spoon
Well Pack	sand: 4 ft. to 16 ft. bent.: 2 ft. to 4 ft. grout: 0 ft. to 2 ft.	Well Construction	Casing Material: Schedule 40 PVC Screen Interval: 6 ft. to 16 ft. Casing Diameter: 4 in. Screen Slot Size: 0.010-in. Depth to GW: ▽ first encountered: 10' bgs. static ▼

Sample Type	Sample No.	Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
			Time	Recov.					
								Cleared to 6.5' bgs. with air knife	
						1			
						2			
						3			
						4			
						5			
						6			
						7			
S	MW-9 8'	16 20	1510	100		8	CL	Sandy clay with gravel, CL, dark grayish brown, moist, hard, low plasticity 50% clay, 30% coarse grained sand, 20% fine gravel	149
S	MW-9 9'	18 12	1520	100		9	CL	Clay, CL, dark grayish brown, moist, very stiff, medium plasticity 100% clay	
		14 22				10	▽	Sandy clay with gravel, CL, dark grayish brown, moist, hard, low plasticity 50% clay, 30% coarse grained sand, 20% fine gravel	55
S	MW-9 11'	2 4	1530	100		11	SM	Silty sand with clay, SM, dark grayish brown, wet, medium dense 70% medium grained sand, 20% silt, 10% clay	15
S	MW-9 13'	20 29 31	1540	100		12 13	CL		0
		29 34				14	CL	Sandy clay with gravel, CL, dark yellowish brown, dry to moist, hard medium plasticity, 50% clay, 30% coarse grained sand, 20% medium gravel	0
		45 28				15			0
		30 37				16		Sandy clay with gravel, CL, dark yellowish brown, dry to moist, hard medium plasticity, 50% clay, 30% coarse grained sand, 20% coarse gravel	0
						17			
						18			
						19			
						20			

Recovery _____
Sample _____

Comments:



CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

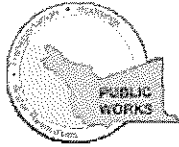
REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

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: 03/12/2009 By jamesy

Permit Numbers: W2009-0234 to W2009-0236
Permits Valid from 03/26/2009 to 03/27/2009

Application Id: 1236807180079
Site Location: 1001 San Pablo Avenue, Albany, CA
Project Start Date: 03/26/2009
Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

City of Project Site: Albany
Completion Date: 03/27/2009

Applicant: Stratus Envr. - Scott Bittinger
3330- Cameron Park Dr #550, Cameron Park, CA 95682

Phone: 530-676-2062

Property Owner: BP/ ARCO
6 Centerpointe Dr, La Palma, CA 90623

Phone: 925-275-3801

Client: ** same as Property Owner **

	Total Due:	\$1035.00
Receipt Number: WR2009-0099	Total Amount Paid:	\$1035.00
Payer Name : Stratus	Paid By: CHECK	PAID IN FULL

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 3 Wells
Driller: RSI - Lic #: 802334 - Method: auger

Work Total: \$1035.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0234	03/12/2009	06/24/2009	MW-7	10.00 in.	4.00 in.	5.00 ft	20.00 ft
W2009-0235	03/12/2009	06/24/2009	MW-8	10.00 in.	4.00 in.	5.00 ft	20.00 ft
W2009-0236	03/12/2009	06/24/2009	MW-9	10.00 in.	4.00 in.	5.00 ft	20.00 ft

Specific Work Permit Conditions

1. 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.

2. Permitte, 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.

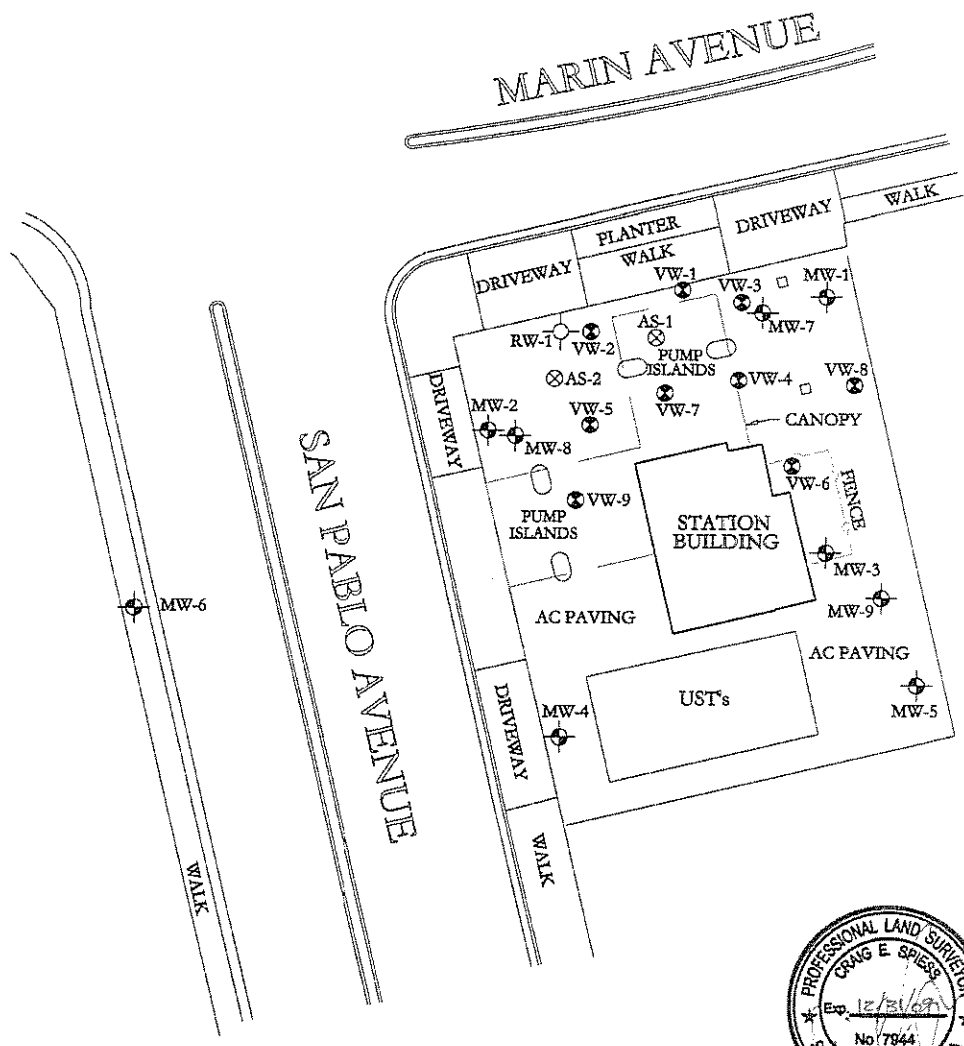
3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or 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.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with

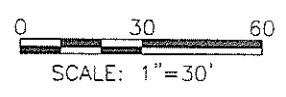
Alameda County Public Works Agency - Water Resources Well Permit

appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
 6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org 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.
 7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
 8. Minimum surface seal thickness is two inches of cement grout placed by tremie
 9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
 10. 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.
-



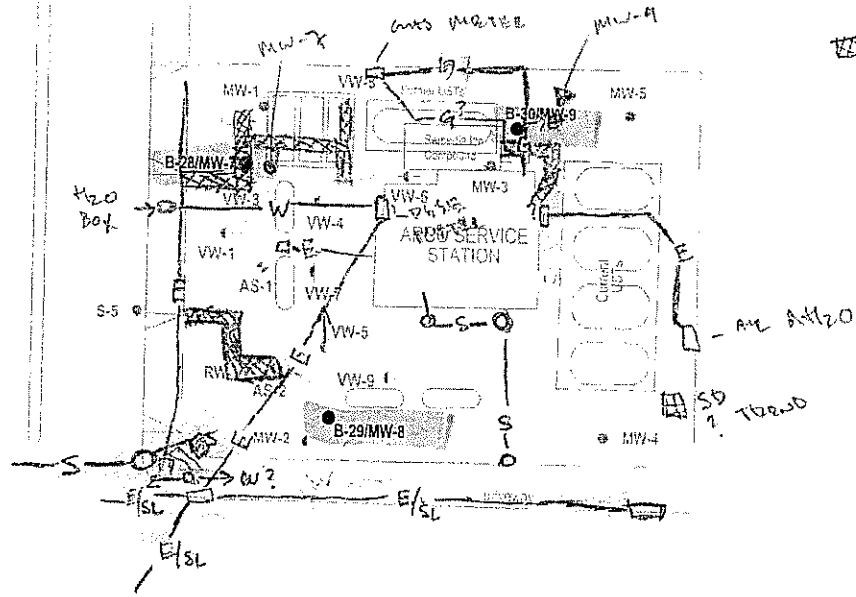
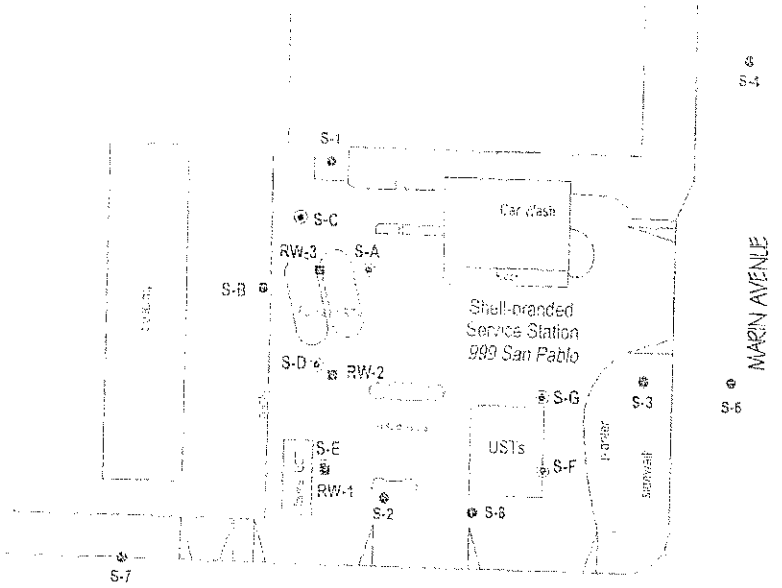
MONITORING WELL EXHIBIT
 PREPARED FOR
 STRATUS ENVIRONMENTAL
 ARCO STATION # 2035 AT 1001 SAN PABLO AVENUE
 CITY OF ALBANY, COUNTY OF ALAMEDA, STATE OF CALIFORNIA



WOOD RODGERS
 ENGINEERING • MAPPING • PLANNING • SURVEYING
 3301 C St., Bldg. 100-B Tel 916.341.7760
 Sacramento, CA 95816 Fax 916.341.7767

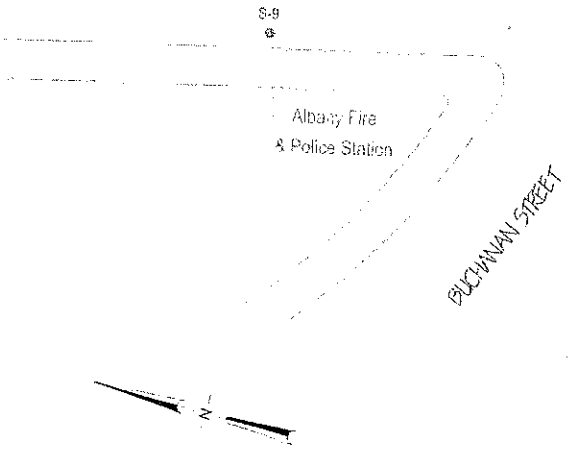
APRIL 20, 2009

WSW



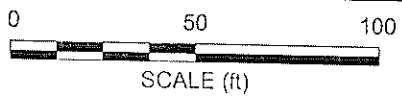
SD = REMEDIATION TRENCH

MAN COLUMN IS AERIAL SYSTEM ELECTRIC AERIAL



LEGEND	
●	Proposed boring/monitoring well
⊙	(ARCO) Monitoring well
⋈	(ARCO) Vapor extraction well
⋈	(ARCO) Air sparge well
S-1 ⊙	(Shell) Monitoring well
RW-1 ⊙	(Shell) Recovery well
S-E ⊙	(Shell) Soil boring

NOTES: INFORMATION FOR SHELL SERVICE STATION AND SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



BROADBENT & ASSOCIATES, INC.
 ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
 1324 Mangrove Ave. Suite 212, Chico, California
 Project No.: 06-08-610 Date: 12/30/08

ARCO Service Station #2035
 1001 San Pablo Avenue
 Albany, California

Site Plan with Proposed Boring and Monitoring Well Locations

Drawing

2

ATTACHMENT

FIELD PROCEDURES FOR WELL DEVELOPMENT

The procedures typically used for development of monitoring or remediation wells are contained in this appendix.

Subjective Analysis of Groundwater and Well Condition

Following installation of a monitoring or remediation well, a minimum of approximately 48 to 72 hours is allotted to allow for curing of liquid neat cement placed in the upper portion of the borehole annulus around the well casing. Upon return to the site to complete development of the well, Stratus personnel will measure depth to groundwater within the well casing and the total depth of the well. These data will be compared with well construction information recorded at the time that the well is installed. If groundwater levels and well depths correspond to construction information, well development will proceed. If the water levels and well depths differ significantly from construction information, personnel developing the well will contact the project manager to discuss the situation prior to proceeding with development activities. Using the well depth and water level measurement, the volume of water situated within the well casing is calculated.

Prior to development, a sample of groundwater is collected from the well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating liquid petroleum hydrocarbons (LPH) and the appearance of a LPH sheen. If measureable LPH is present within the well, the field representative completing the work will discuss with the project manager whether or not to proceed with development of the well.

Well Development

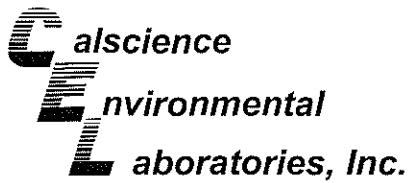
Monitoring and remediation wells are typically developed by surging and bailing, followed by groundwater pumping. Stratus personnel typically develop small diameter wells (2-inch to 4-inch) by manually raising and lowering a bailer or surge block across the screened interval of the well. Wells larger than 4-inches in diameter are typically developed using a truck mounted well development rig to complete surging and bailing activities. This well surging activity forces water movement through the filter pack sand placed around the well screen. Following surging of the well, water from the well is bailed in order to recover sediment that may have settled near the base of the well casing.

Once the surging and bailing activities have been completed, a submersible pump is placed inside of the well casing to allow for pumping of groundwater. Groundwater pumping is typically continued until the water removed from the well appears free of suspended sediment. A minimum of 10 well casing volumes are typically extracted from the well during development. However, less water may be removed from the well if insufficient recharge only allows for intermittent groundwater pumping.

Groundwater generated during development is containerized and transported off-site for disposal at an appropriate facility.

Equipment Cleaning

All reusable equipment used in well development is cleaned using phosphate-free detergents and rinsed with de-ionized water following use at each specific well.



April 03, 2009

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

Subject: **Calscience Work Order No.: 09-03-2417**
Client Reference: ARCO 2035

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 3/27/2009 and analyzed in accordance with the attached chain-of-custody.

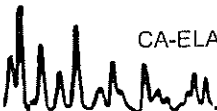
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows 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.

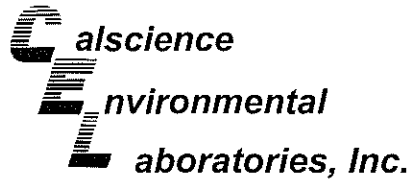
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

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

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager





Analytical Report

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

Date Received: 03/27/09
Work Order No: 09-03-2417
Preparation: EPA 3050B
Method: EPA 6010B

Project: ARCO 2035

Page 1 of 1

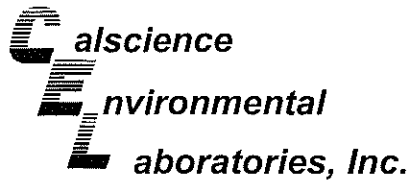
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SWC	09-03-2417-1-A	03/26/09 14:45	Solid	ICP 5300	04/01/09	04/02/09 11:05	090401L01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	7.01	0.500	1		mg/kg

Method Blank	097-01-002-12,161	N/A	Solid	ICP 5300	04/01/09	04/02/09 10:31	090401L01
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	ND	0.500	1		mg/kg

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: 03/27/09
Work Order No: 09-03-2417
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 2035

Page 1 of 1

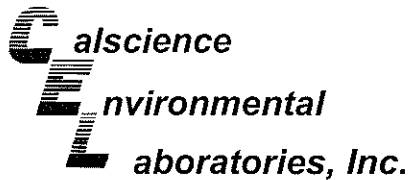
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SWC	09-03-2417-1-A	03/26/09 14:45	Solid	GC 1	03/28/09	03/28/09 14:33	090328B01

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	87	42-126			

Method Blank	099-12-697-95	N/A	Solid	GC 1	03/28/09	03/28/09 12:25	090328B01
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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	90	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: 03/27/09
Work Order No: 09-03-2417
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO 2035

Page 1 of 1

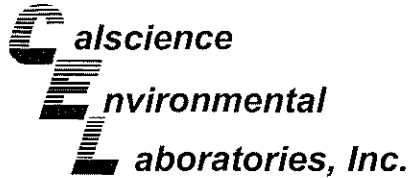
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SWC	09-03-2417-1-A	03/26/09 14:45	Solid	GC/MS Z	03/31/09	03/31/09 17:28	090331L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	0.032	0.0010	1		Xylenes (total)	0.015	0.0010	1	
Ethylbenzene	0.0069	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
Toluene	0.0022	0.0010	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	101	75-141			1,2-Dichloroethane-d4	117	73-151		
Toluene-d8	95	87-111			1,4-Bromofluorobenzene	91	71-113		

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-709-118	N/A	Solid	GC/MS Z	03/31/09	03/31/09 13:50	090331L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
Toluene	ND	0.0010	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	97	75-141			1,2-Dichloroethane-d4	108	73-151		
Toluene-d8	95	87-111			1,4-Bromofluorobenzene	95	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

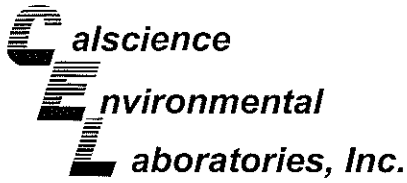
Date Received: 03/27/09
Work Order No: 09-03-2417
Preparation: EPA 3050B
Method: EPA 6010B

Project ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-03-2429-3	Solid	ICP 5300	04/01/09	04/02/09	090401S01

<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>
Lead	104	104	75-125	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - PDS / PDSD

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

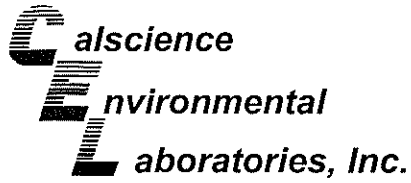
Date Received 03/27/09
 Work Order No: 09-03-2417
 Preparation: EPA 3050B
 Method: EPA 6010B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
09-03-2429-3	Solid	ICP 5300	04/01/09	04/02/09	090401S01

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	92	95	75-125	2	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

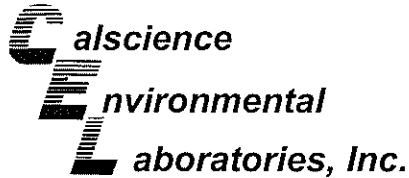
Date Received: 03/27/09
Work Order No: 09-03-2417
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SWC	Solid	GC 1	03/28/09	03/28/09	090328S01

<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)	105	98	42-126	7	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

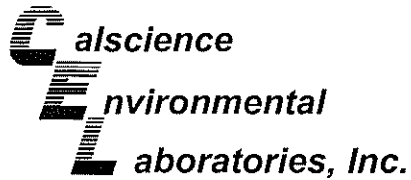
Date Received: 03/27/09
Work Order No: 09-03-2417
Preparation: EPA 5030B
Method: EPA 8260B

Project ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-03-2418-4	Solid	GC/MS Z	03/31/09	03/31/09	090331S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	98	96	78-114	2	0-14	
Chloroform	96	95	80-120	1	0-20	
1,1-Dichloroethane	94	90	80-120	5	0-20	
1,2-Dichloroethane	104	106	80-120	1	0-20	
1,1-Dichloroethene	97	96	73-127	1	0-21	
Ethanol	85	91	45-135	6	0-29	
Tetrachloroethene	70	66	80-120	6	0-20	
Toluene	93	93	74-116	0	0-16	
Trichloroethene	92	94	74-122	2	0-17	
Methyl-t-Butyl Ether (MTBE)	95	92	69-123	3	0-18	

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

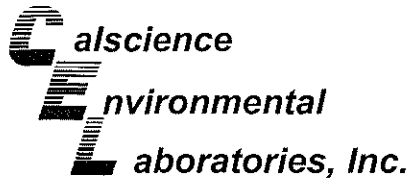
Date Received: N/A
Work Order No: 09-03-2417
Preparation: EPA 3050B
Method: EPA 6010B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-12,161	Solid	ICP 5300	04/01/09	04/02/09	090401L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	106	105	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

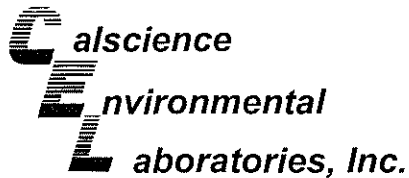
Date Received: N/A
Work Order No: 09-03-2417
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-697-95	Solid	GC 1	03/28/09	03/28/09	090328B01

Parameter	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	105	104	70-118	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate

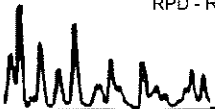
Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

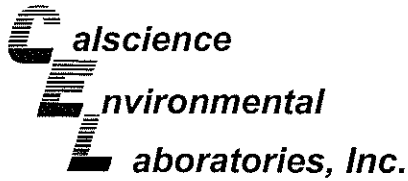
Date Received: N/A
Work Order No: 09-03-2417
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-118	Solid	GC/MS Z	03/31/09	03/31/09	090331L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	105	102	84-114	79-119	2	0-7	
Bromobenzene	104	105	80-120	73-127	1	0-20	
Bromochloromethane	93	95	80-120	73-127	2	0-20	
Bromodichloromethane	100	100	80-120	73-127	0	0-20	
Bromoform	98	98	80-120	73-127	1	0-20	
Bromomethane	103	97	80-120	73-127	5	0-20	
n-Butylbenzene	100	102	77-123	69-131	2	0-25	
sec-Butylbenzene	102	103	80-120	73-127	1	0-20	
tert-Butylbenzene	105	105	80-120	73-127	0	0-20	
Carbon Disulfide	99	95	80-120	73-127	4	0-20	
Carbon Tetrachloride	103	100	69-135	58-146	3	0-13	
Chlorobenzene	96	96	85-109	81-113	0	0-8	
Chloroethane	88	83	80-120	73-127	6	0-20	
Chloroform	141	95	80-120	73-127	38	0-20	
Chloromethane	95	95	80-120	73-127	0	0-20	
2-Chlorotoluene	99	97	80-120	73-127	2	0-20	
4-Chlorotoluene	102	102	80-120	73-127	0	0-20	
Dibromochloromethane	97	95	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	96	98	80-120	73-127	2	0-20	
1,2-Dibromoethane	97	99	80-120	73-127	2	0-20	
Dibromomethane	99	97	80-120	73-127	3	0-20	
1,2-Dichlorobenzene	98	100	80-110	75-115	2	0-10	
1,3-Dichlorobenzene	97	99	80-120	73-127	2	0-20	
1,4-Dichlorobenzene	98	99	80-120	73-127	1	0-20	
Dichlorodifluoromethane	111	112	80-120	73-127	0	0-20	
1,1-Dichloroethane	95	93	80-120	73-127	3	0-20	
1,2-Dichloroethane	108	107	80-120	73-127	1	0-20	
1,1-Dichloroethene	101	100	83-125	76-132	0	0-10	
c-1,2-Dichloroethene	88	86	80-120	73-127	3	0-20	
t-1,2-Dichloroethene	92	88	80-120	73-127	4	0-20	
1,2-Dichloropropane	97	96	79-115	73-121	1	0-25	
1,3-Dichloropropane	97	97	80-120	73-127	0	0-20	
2,2-Dichloropropane	97	94	80-120	73-127	4	0-20	
1,1-Dichloropropene	102	102	80-120	73-127	0	0-20	
c-1,3-Dichloropropene	96	97	80-120	73-127	2	0-20	
t-1,3-Dichloropropene	99	102	80-120	73-127	3	0-20	
Ethylbenzene	99	97	80-120	73-127	2	0-20	
Isopropylbenzene	103	102	80-120	73-127	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

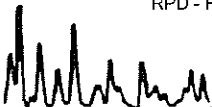
Date Received: N/A
Work Order No: 09-03-2417
Preparation: EPA 5030B
Method: EPA 8260B

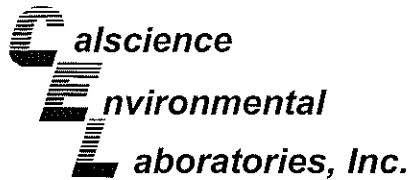
Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-118	Solid	GC/MS Z	03/31/09	03/31/09	090331L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
p-Isopropyltoluene	102	102	80-120	73-127	0	0-20	
Methylene Chloride	94	94	80-120	73-127	0	0-20	
Naphthalene	85	88	80-120	73-127	4	0-20	
n-Propylbenzene	100	100	80-120	73-127	1	0-20	
Styrene	101	99	80-120	73-127	2	0-20	
Ethanol	93	105	50-134	36-148	12	0-23	
1,1,1,2-Tetrachloroethane	101	100	80-120	73-127	1	0-20	
1,1,2,2-Tetrachloroethane	98	98	80-120	73-127	1	0-20	
Tetrachloroethene	91	95	80-120	73-127	4	0-20	
Toluene	97	98	79-115	73-121	1	0-8	
1,2,3-Trichlorobenzene	99	101	80-120	73-127	2	0-20	
1,2,4-Trichlorobenzene	98	99	80-120	73-127	1	0-20	
1,1,1-Trichloroethane	99	97	80-120	73-127	1	0-20	
1,1,2-Trichloroethane	91	92	80-120	73-127	1	0-20	
Trichloroethene	99	101	87-111	83-115	1	0-7	
Trichlorofluoromethane	107	104	80-120	73-127	2	0-20	
1,2,3-Trichloropropane	97	102	80-120	73-127	5	0-20	
1,2,4-Trimethylbenzene	106	107	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	102	102	80-120	73-127	0	0-20	
Vinyl Acetate	106	95	80-120	73-127	11	0-20	
Vinyl Chloride	93	92	72-126	63-135	2	0-10	
p/m-Xylene	98	98	80-120	73-127	0	0-20	
o-Xylene	100	98	80-120	73-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	94	93	75-129	66-138	1	0-13	
Tert-Butyl Alcohol (TBA)	94	94	66-126	56-136	0	0-24	
Diisopropyl Ether (DIPE)	104	103	77-125	69-133	1	0-13	
Ethyl-t-Butyl Ether (ETBE)	94	94	72-132	62-142	1	0-12	
Tert-Amyl-Methyl Ether (TAME)	98	99	77-125	69-133	2	0-10	

Total number of LCS compounds : 66
 Total number of ME compounds : 0
 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: 09-03-2417

<u>Qualifier</u>	<u>Definition</u>
AX	Sample too dilute to quantify surrogate.
AZ	Surrogate recovery outside of acceptance limits due to matrix interference.
BA, AY	BA = Relative percent difference out of control. AY = 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.
DU	Insufficient sample quantity for matrix spike/dup matrix spike.
ET	Sample was extracted past end of recommended max. holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	Internal standard recovery is outside method recovery limit.
IB	CCV recovery above limit; 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, AY	LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected.
LH, AY	LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected.
LM, AY	LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LN, AY	LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.

Work Order Number: 09-03-2417

<u>Qualifier</u>	<u>Definition</u>
LW	Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
LX	Quantitation of unknown hydrocarbon(s) in sample based on diesel.
MB	Analyte present in the method blank.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RA	RPD exceeds limit due to matrix interf.; % recovs. within limits.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.





Laboratory Management Program LaMP Chain of Custody Record

190423

Page 1 of 1

BP/ARC Project Name: _____

Req Due Date (mm/dd/yy): _____

(2417)

Rush TAT: Yes ___ No

BP/ARC Facility No: ARCO 2035

Lab Work Order Number: _____

Lab Name: <u>CALSCIENCE</u>	BP/ARC Facility Address: <u>1001 SAN PABLO AVE</u>	Consultant/Contractor: <u>STRATUS</u>
Lab Address: <u>7440 LINDENWAY, GARDEN GROVE, CA.</u>	City, State, ZIP Code: <u>ALBANY, CA.</u>	Consultant/Contractor Project No: <u>E2035</u>
Lab PM: <u>LUCIANO VILLAFANIA</u>	Lead Regulatory Agency: <u>ALAMEDA COUNTY</u>	Address: <u>3330 CAMBRON PARK DR. #550</u>
Lab Phone: _____	California Global ID No.: <u>T0600100081</u>	Consultant/Contractor PM: <u>JAY JOHNSON</u>
Lab Shipping Acct#: <u>9255</u>	Enfos Proposal No: <u>0009-0004</u>	Phone: <u>530 676 6000</u>
Lab Bottle Order No: _____	Accounting Mode: Provision <input checked="" type="checkbox"/> OOC-BU ___ OOC-RM ___	Email EDD To: <u>CHUFF@STRATUSINC.NET</u>
Other Info: _____	Stage: <u>OPERATE</u> Activity: <u>FIELD CHARACTERIZATION</u>	Invoice To: BP/ARC <input checked="" type="checkbox"/> Contractor ___

BPIARC EBM: <u>Paul Supple</u>				Matrix								No. Containers / Preservative				Requested Analyses								Report Type & QC Level	
EBM Phone: _____				Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO	BTEX	MTBE	TOTAL LEAD	Standard <input checked="" type="checkbox"/>		Full Data Package ___						
EBM Email: <u>PAUL.SUPPLE@BP.COM</u>																	Comments								
Lab No.	Sample Description	Date	Time																						
1	SWC	3/26/09	1445	X			1	X					X	X	X	X									

Sampler's Name: <u>Collin Fisher</u>	Relinquished By / Affiliation: <u>Collin Fisher</u>	Date: <u>3/26/09</u>	Time: <u>1700</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>3/27/09</u>	Time: <u>1000</u>
Sampler's Company: <u>STRATUS</u>						
Shipment Method: <u>GRO</u>	Ship Date: <u>3/26/09</u>					
Shipment Tracking No: <u>106160333</u>						

Special Instructions: _____

THIS LINE - LAB USE ONLY: 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 1 of 1

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: STRATUS

DATE: 03/27/09

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

Temperature 1.4 °C - 0.2 °C (CF) = 1.2 °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: KW

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
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 COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

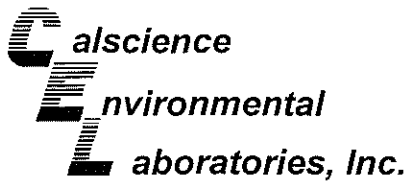
Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores® TerraCores® tot

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

Air: Tedlar® Summa® _____ **Sludge/Other:** _____ Checked/Labeled by: KW

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

Preservative: h:HCL n:HNO₃ na₂:Na₂S₂O₃ na:NaOH p:H₃PO₄ s:H₂SO₄ znn:ZnAc₂+NaOH Scanned by: YL



April 07, 2009

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

Subject: **Calscience Work Order No.: 09-03-2418**
Client Reference: **ARCO 2035**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 3/27/2009 and analyzed in accordance with the attached chain-of-custody.

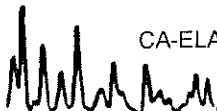
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows 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.

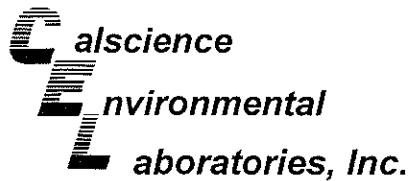
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

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

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager





Analytical Report

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

Date Received: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 2035

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8 11'	09-03-2418-1-A	03/26/09 08:40	Solid	GC 1	03/28/09	03/28/09 17:45	090328B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	4.1	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	97	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8 13'	09-03-2418-2-A	03/26/09 08:45	Solid	GC 1	03/28/09	03/30/09 14:19	090330B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	74	12	25		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	101	42-126			

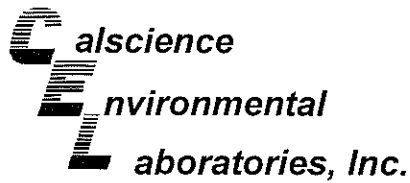
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8 16'	09-03-2418-3-A	03/26/09 09:12	Solid	GC 1	03/28/09	03/28/09 18:48	090328B01

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	92	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8 19'	09-03-2418-4-A	03/26/09 09:55	Solid	GC 1	03/28/09	03/28/09 19:20	090328B01

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	88	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: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 2035

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7 8'	09-03-2418-5-A	03/26/09 12:00	Solid	GC 1	03/28/09	03/28/09 19:52	090328B01

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	88	42-126			

MW-7 13'	09-03-2418-6-A	03/26/09 12:25	Solid	GC 1	03/28/09	03/29/09 23:35	090328B02
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	200	62	125		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	98	42-126			

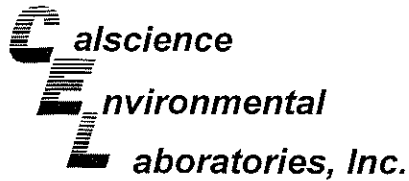
MW-7 14'	09-03-2418-7-A	03/26/09 12:45	Solid	GC 1	03/28/09	03/29/09 00:07	090328B02
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	860	120	250		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	106	42-126			

MW-7 15'	09-03-2418-8-A	03/26/09 12:55	Solid	GC 1	03/28/09	03/28/09 20:56	090328B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	5.2	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	104	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: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 2035

Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9 8'	09-03-2418-9-A	03/26/09 15:10	Solid	GC 1	03/28/09	03/28/09 21:28	090328B01

Comment(s): -LW = Quantitation of unknown hydrocarbon(s) in sample based on gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	11	0.50	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	110	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9 9'	09-03-2418-10-A	03/26/09 15:20	Solid	GC 1	03/28/09	03/30/09 14:51	090330B01

Comment(s): -LW = Quantitation of unknown hydrocarbon(s) in sample based on gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	110	12	25		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	114	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9 11'	09-03-2418-11-A	03/26/09 15:30	Solid	GC 1	03/28/09	03/30/09 15:23	090330B01

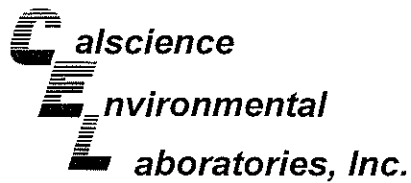
Comment(s): -LW = Quantitation of unknown hydrocarbon(s) in sample based on gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	61	6.2	12.5		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	116	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9 13'	09-03-2418-12-A	03/26/09 15:40	Solid	GC 1	03/28/09	03/29/09 23:03	090328B01

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	91	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: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 2035

Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-697-95	N/A	Solid	GC 1	03/28/09	03/28/09 12:25	090328B01

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	90	42-126			

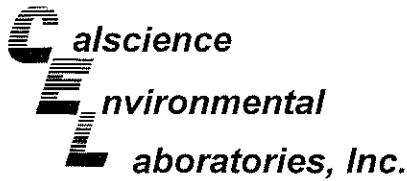
Method Blank	099-12-697-96	N/A	Solid	GC 1	03/28/09	03/28/09 14:01	090328B02
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	5.0	10		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	86	42-126			

Method Blank	099-12-697-97	N/A	Solid	GC 1	03/28/09	03/30/09 13:47	090330B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	5.0	10		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	90	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: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO 2035

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8 11'	09-03-2418-1-A	03/26/09 08:40	Solid	GC/MS Z	03/31/09	03/31/09 17:59	090331L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	0.51	0.10	100		Methyl-t-Butyl Ether (MTBE)	ND	0.10	100	
1,2-Dibromoethane	ND	0.10	100		Tert-Butyl Alcohol (TBA)	ND	1.0	100	
1,2-Dichloroethane	ND	0.10	100		Diisopropyl Ether (DIPE)	ND	0.20	100	
Ethylbenzene	0.29	0.10	100		Ethyl-t-Butyl Ether (ETBE)	ND	0.20	100	
Toluene	ND	0.10	100		Tert-Amyl-Methyl Ether (TAME)	ND	0.20	100	
Xylenes (total)	1.2	0.10	100						
<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	93	75-141			1,2-Dichloroethane-d4	111	73-151		
Toluene-d8	97	87-111			1,4-Bromofluorobenzene	96	71-113		

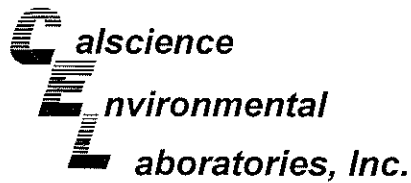
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8 13'	09-03-2418-2-A	03/26/09 08:45	Solid	GC/MS Z	03/31/09	03/31/09 18:30	090331L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	1.8	0.10	100		Methyl-t-Butyl Ether (MTBE)	ND	0.10	100	
1,2-Dibromoethane	ND	0.10	100		Tert-Butyl Alcohol (TBA)	ND	1.0	100	
1,2-Dichloroethane	ND	0.10	100		Diisopropyl Ether (DIPE)	ND	0.20	100	
Ethylbenzene	4.3	0.10	100		Ethyl-t-Butyl Ether (ETBE)	ND	0.20	100	
Toluene	1.7	0.10	100		Tert-Amyl-Methyl Ether (TAME)	ND	0.20	100	
Xylenes (total)	20	0.10	100						
<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	110	73-151		
Toluene-d8	99	87-111			1,4-Bromofluorobenzene	97	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8 16'	09-03-2418-3-A	03/26/09 09:12	Solid	GC/MS Z	03/31/09	03/31/09 19:01	090331L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	0.0013	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	0.068	0.010	1	
1,2-Dichloroethane	0.0021	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	ND	0.0010	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	106	75-141			1,2-Dichloroethane-d4	113	73-151		
Toluene-d8	95	87-111			1,4-Bromofluorobenzene	94	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: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO 2035

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8 19'	09-03-2418-4-A	03/26/09 09:55	Solid	GC/MS Z	03/31/09	03/31/09 14:21	090331L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	0.0011	0.0010	1		Methyl-t-Butyl Ether (MTBE)	0.0074	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	0.021	0.010	1	
1,2-Dichloroethane	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	ND	0.0010	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	98	75-141			1,2-Dichloroethane-d4	109	73-151		
Toluene-d8	96	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
MW-7 8'	09-03-2418-5-A	03/26/09 12:00	Solid	GC/MS Z	04/01/09	04/01/09 21:48	090401L01

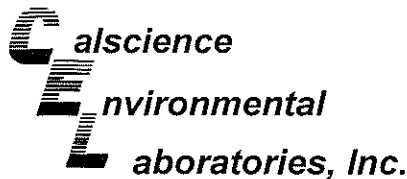
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
1,2-Dichloroethane	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	ND	0.0010	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	104	75-141			1,2-Dichloroethane-d4	124	73-151		
Toluene-d8	94	87-111			1,4-Bromofluorobenzene	99	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7 13'	09-03-2418-6-A	03/26/09 12:25	Solid	GC/MS Z	04/02/09	04/02/09 20:12	090402L02

Comment(s): -BH

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.10	100		Methyl-t-Butyl Ether (MTBE)	ND	0.10	100	
1,2-Dibromoethane	ND	0.10	100		Tert-Butyl Alcohol (TBA)	ND	1.0	100	
1,2-Dichloroethane	ND	0.10	100		Diisopropyl Ether (DIPE)	ND	0.20	100	
Ethylbenzene	ND	0.10	100		Ethyl-t-Butyl Ether (ETBE)	ND	0.20	100	
Toluene	ND	0.10	100		Tert-Amyl-Methyl Ether (TAME)	ND	0.20	100	
Xylenes (total)	ND	0.10	100						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	99	75-141			1,2-Dichloroethane-d4	115	73-151		
Toluene-d8	92	87-111			1,4-Bromofluorobenzene	89	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: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO 2035

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7 14'	09-03-2418-7-A	03/26/09 12:45	Solid	GC/MS Z	03/31/09	03/31/09 20:35	090331L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.10	100		Methyl-t-Butyl Ether (MTBE)	ND	0.10	100	
1,2-Dibromoethane	ND	0.10	100		Tert-Butyl Alcohol (TBA)	ND	1.0	100	
1,2-Dichloroethane	ND	0.10	100		Diisopropyl Ether (DIPE)	ND	0.20	100	
Ethylbenzene	1.9	0.10	100		Ethyl-t-Butyl Ether (ETBE)	ND	0.20	100	
Toluene	ND	0.10	100		Tert-Amyl-Methyl Ether (TAME)	ND	0.20	100	
Xylenes (total)	0.10	0.10	100						
<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	104	75-141			1,2-Dichloroethane-d4	114	73-151		
Toluene-d8	98	87-111			1,4-Bromofluorobenzene	109	71-113		

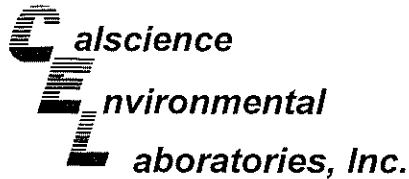
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7 15'	09-03-2418-8-A	03/26/09 12:55	Solid	GC/MS Z	04/02/09	04/02/09 20:43	090402L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
1,2-Dichloroethane	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	0.024	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	0.020	0.0010	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	97	75-141			1,2-Dichloroethane-d4	97	73-151		
Toluene-d8	102	87-111			1,4-Bromofluorobenzene	101	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9 8'	09-03-2418-9-A	03/26/09 15:10	Solid	GC/MS Z	03/31/09	03/31/09 21:37	090331L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
1,2-Dichloroethane	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	ND	0.0010	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	106	75-141			1,2-Dichloroethane-d4	120	73-151		
Toluene-d8	98	87-111			1,4-Bromofluorobenzene	103	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: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO 2035

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9 9'	09-03-2418-10-A	03/26/09 15:20	Solid	GC/MS Z	03/31/09	03/31/09 22:08	090331L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
1,2-Dichloroethane	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	0.0013	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	0.0010	0.0010	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	100	75-141			1,2-Dichloroethane-d4	117	73-151		
Toluene-d8	97	87-111			1,4-Bromofluorobenzene	78	71-113		

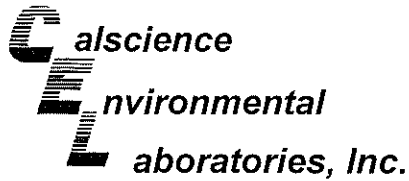
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9 11'	09-03-2418-11-A	03/26/09 15:30	Solid	GC/MS Z	03/31/09	03/31/09 22:39	090331L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
1,2-Dichloroethane	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	ND	0.0010	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	76	75-141			1,2-Dichloroethane-d4	119	73-151		
Toluene-d8	99	87-111			1,4-Bromofluorobenzene	104	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9 13'	09-03-2418-12-A	03/26/09 15:40	Solid	GC/MS Z	04/01/09	04/01/09 21:17	090401L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
1,2-Dichloroethane	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	ND	0.0010	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	103	75-141			1,2-Dichloroethane-d4	115	73-151		
Toluene-d8	96	87-111			1,4-Bromofluorobenzene	95	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: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO 2035

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-709-118	N/A	Solid	GC/MS Z	03/31/09	03/31/09 13:50	090331L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
1,2-Dichloroethane	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	ND	0.0010	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	97	75-141			1,2-Dichloroethane-d4	108	73-151		
Toluene-d8	95	87-111			1,4-Bromofluorobenzene	95	71-113		

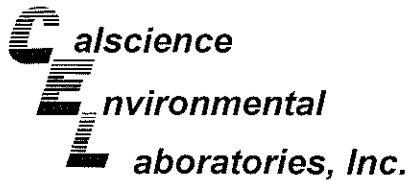
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-709-119	N/A	Solid	GC/MS Z	03/31/09	03/31/09 13:19	090331L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.10	100		Methyl-t-Butyl Ether (MTBE)	ND	0.10	100	
1,2-Dibromoethane	ND	0.10	100		Tert-Butyl Alcohol (TBA)	ND	1.0	100	
1,2-Dichloroethane	ND	0.10	100		Diisopropyl Ether (DIPE)	ND	0.20	100	
Ethylbenzene	ND	0.10	100		Ethyl-t-Butyl Ether (ETBE)	ND	0.20	100	
Toluene	ND	0.10	100		Tert-Amyl-Methyl Ether (TAME)	ND	0.20	100	
Xylenes (total)	ND	0.10	100						
<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	108	73-151		
Toluene-d8	98	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
Method Blank	099-12-709-120	N/A	Solid	GC/MS Z	04/01/09	04/01/09 13:00	090401L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
1,2-Dichloroethane	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	ND	0.0010	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	102	75-141			1,2-Dichloroethane-d4	120	73-151		
Toluene-d8	101	87-111			1,4-Bromofluorobenzene	92	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: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B
Units: mg/kg

Project: ARCO 2035

Page 6 of 6

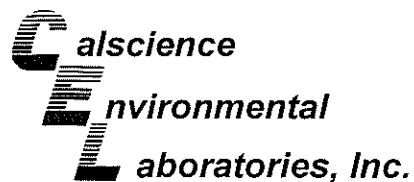
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-709-122	N/A	Solid	GC/MS Z	04/02/09	04/02/09 17:06	090402L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
1,2-Dichloroethane	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethylbenzene	ND	0.0010	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Xylenes (total)	ND	0.0010	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	110	73-151		
Toluene-d8	97	87-111			1,4-Bromofluorobenzene	84	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-709-123	N/A	Solid	GC/MS Z	04/02/09	04/02/09 16:35	090402L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.10	100		Methyl-t-Butyl Ether (MTBE)	ND	0.10	100	
1,2-Dibromoethane	ND	0.10	100		Tert-Butyl Alcohol (TBA)	ND	1.0	100	
1,2-Dichloroethane	ND	0.10	100		Diisopropyl Ether (DIPE)	ND	0.20	100	
Ethylbenzene	ND	0.10	100		Ethyl-t-Butyl Ether (ETBE)	ND	0.20	100	
Toluene	ND	0.10	100		Tert-Amyl-Methyl Ether (TAME)	ND	0.20	100	
Xylenes (total)	ND	0.10	100						
<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	101	73-151		
Toluene-d8	98	87-111			1,4-Bromofluorobenzene	94	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

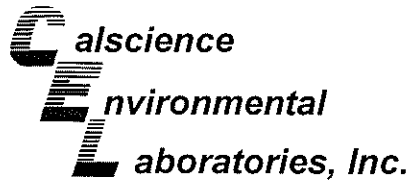
Date Received: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-03-2417-1	Solid	GC 1	03/28/09	03/28/09	090328S01

<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)	105	98	42-126	7	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

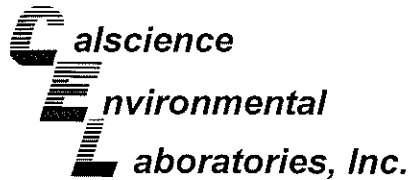
Date Received: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-8 19'	Solid	GC/MS Z	03/31/09	03/31/09	090331S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	98	96	78-114	2	0-14	
Chloroform	96	95	80-120	1	0-20	
1,1-Dichloroethane	94	90	80-120	5	0-20	
1,2-Dichloroethane	104	106	80-120	1	0-20	
1,1-Dichloroethene	97	96	73-127	1	0-21	
Ethanol	85	91	45-135	6	0-29	
Tetrachloroethene	70	66	80-120	6	0-20	
Toluene	93	93	74-116	0	0-16	
Trichloroethene	92	94	74-122	2	0-17	
Methyl-t-Butyl Ether (MTBE)	95	92	69-123	3	0-18	

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

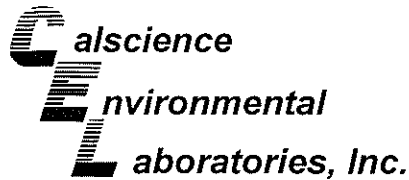
Date Received: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-03-2183-4	Solid	GC/MS Z	04/01/09	04/01/09	090401S01

<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>
Benzene	105	98	78-114	7	0-14	
Chloroform	115	116	80-120	1	0-20	
1,1-Dichloroethane	113	114	80-120	1	0-20	
1,2-Dichloroethane	129	124	80-120	4	0-20	LM,AY
1,1-Dichloroethene	110	115	73-127	4	0-21	
Ethanol	109	107	45-135	2	0-29	
Tetrachloroethene	74	71	80-120	4	0-20	
Toluene	103	94	74-116	9	0-16	
Trichloroethene	96	100	74-122	4	0-17	
Methyl-t-Butyl Ether (MTBE)	100	105	69-123	5	0-18	

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

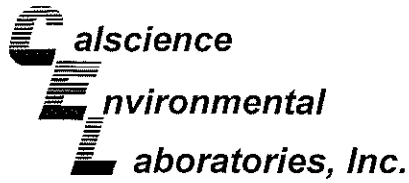
Date Received: 03/27/09
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-03-2574-5	Solid	GC/MS Z	04/02/09	04/02/09	090402S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	87	78	79-115	11	0-13	LN,AY
Carbon Tetrachloride	85	84	55-139	1	0-15	
Chlorobenzene	90	83	79-115	9	0-17	
1,2-Dibromoethane	96	86	70-130	11	0-30	
1,2-Dichlorobenzene	78	78	63-123	1	0-23	
1,1-Dichloroethene	87	84	69-123	4	0-16	
Ethylbenzene	93	86	70-130	8	0-30	
Toluene	87	87	79-115	1	0-15	
Trichloroethene	84	91	66-144	8	0-14	
Vinyl Chloride	74	81	60-126	8	0-14	
Methyl-t-Butyl Ether (MTBE)	88	85	68-128	3	0-14	
Tert-Butyl Alcohol (TBA)	73	87	44-134	17	0-37	
Diisopropyl Ether (DIPE)	58	55	75-123	3	0-12	LN,AY
Ethyl-t-Butyl Ether (ETBE)	94	88	75-117	7	0-12	
Tert-Amyl-Methyl Ether (TAME)	94	87	79-115	8	0-12	
Ethanol	80	85	42-138	6	0-28	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
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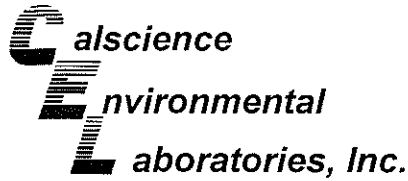
Date Received: N/A
 Work Order No: 09-03-2418
 Preparation: EPA 5030B
 Method: EPA 8015B (M)

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-697-96	Solid	GC 1	03/28/09	03/28/09	090328B02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	105	104	70-118	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
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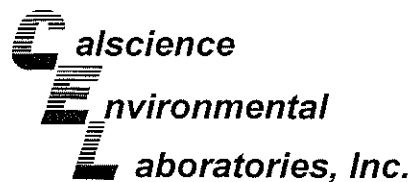
Date Received: N/A
 Work Order No: 09-03-2418
 Preparation: EPA 5030B
 Method: EPA 8015B (M)

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-697-97	Solid	GC 1	03/28/09	03/30/09	090330B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	101	107	70-118	6	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: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8015B (M)

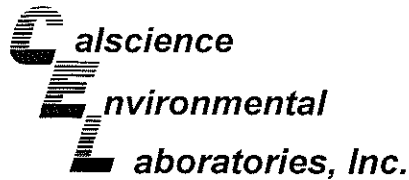
Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-697-95	Solid	GC 1	03/28/09	03/28/09	090328B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	105	104	70-118	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Quality Control - LCS/LCS Duplicate

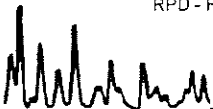
Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

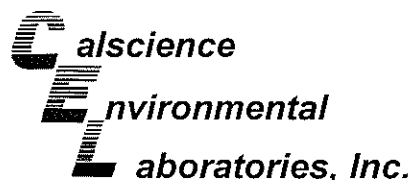
Date Received: N/A
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-118	Solid	GC/MS Z	03/31/09	03/31/09	090331L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	105	102	84-114	79-119	2	0-7	
Bromobenzene	104	105	80-120	73-127	1	0-20	
Bromochloromethane	93	95	80-120	73-127	2	0-20	
Bromodichloromethane	100	100	80-120	73-127	0	0-20	
Bromoform	98	98	80-120	73-127	1	0-20	
Bromomethane	103	97	80-120	73-127	5	0-20	
n-Butylbenzene	100	102	77-123	69-131	2	0-25	
sec-Butylbenzene	102	103	80-120	73-127	1	0-20	
tert-Butylbenzene	105	105	80-120	73-127	0	0-20	
Carbon Disulfide	99	95	80-120	73-127	4	0-20	
Carbon Tetrachloride	103	100	69-135	58-146	3	0-13	
Chlorobenzene	96	96	85-109	81-113	0	0-8	
Chloroethane	88	83	80-120	73-127	6	0-20	
Chloroform	141	95	80-120	73-127	38	0-20	
Chloromethane	95	95	80-120	73-127	0	0-20	
2-Chlorotoluene	99	97	80-120	73-127	2	0-20	
4-Chlorotoluene	102	102	80-120	73-127	0	0-20	
Dibromochloromethane	97	95	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	96	98	80-120	73-127	2	0-20	
1,2-Dibromoethane	97	99	80-120	73-127	2	0-20	
Dibromomethane	99	97	80-120	73-127	3	0-20	
1,2-Dichlorobenzene	98	100	80-110	75-115	2	0-10	
1,3-Dichlorobenzene	97	99	80-120	73-127	2	0-20	
1,4-Dichlorobenzene	98	99	80-120	73-127	1	0-20	
Dichlorodifluoromethane	111	112	80-120	73-127	0	0-20	
1,1-Dichloroethane	95	93	80-120	73-127	3	0-20	
1,2-Dichloroethane	108	107	80-120	73-127	1	0-20	
1,1-Dichloroethene	101	100	83-125	76-132	0	0-10	
c-1,2-Dichloroethene	88	86	80-120	73-127	3	0-20	
t-1,2-Dichloroethene	92	88	80-120	73-127	4	0-20	
1,2-Dichloropropane	97	96	79-115	73-121	1	0-25	
1,3-Dichloropropane	97	97	80-120	73-127	0	0-20	
2,2-Dichloropropane	97	94	80-120	73-127	4	0-20	
1,1-Dichloropropene	102	102	80-120	73-127	0	0-20	
c-1,3-Dichloropropene	96	97	80-120	73-127	2	0-20	
t-1,3-Dichloropropene	99	102	80-120	73-127	3	0-20	
Ethylbenzene	99	97	80-120	73-127	2	0-20	
Isopropylbenzene	103	102	80-120	73-127	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: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-118	Solid	GC/MS Z	03/31/09	03/31/09	090331L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
p-isopropyltoluene	102	102	80-120	73-127	0	0-20	
Methylene Chloride	94	94	80-120	73-127	0	0-20	
Naphthalene	85	88	80-120	73-127	4	0-20	
n-Propylbenzene	100	100	80-120	73-127	1	0-20	
Styrene	101	99	80-120	73-127	2	0-20	
Ethanol	93	105	50-134	36-148	12	0-23	
1,1,1,2-Tetrachloroethane	101	100	80-120	73-127	1	0-20	
1,1,2,2-Tetrachloroethane	98	98	80-120	73-127	1	0-20	
Tetrachloroethene	91	95	80-120	73-127	4	0-20	
Toluene	97	98	79-115	73-121	1	0-8	
1,2,3-Trichlorobenzene	99	101	80-120	73-127	2	0-20	
1,2,4-Trichlorobenzene	98	99	80-120	73-127	1	0-20	
1,1,1-Trichloroethane	99	97	80-120	73-127	1	0-20	
1,1,2-Trichloroethane	91	92	80-120	73-127	1	0-20	
Trichloroethene	99	101	87-111	83-115	1	0-7	
Trichlorofluoromethane	107	104	80-120	73-127	2	0-20	
1,2,3-Trichloropropane	97	102	80-120	73-127	5	0-20	
1,2,4-Trimethylbenzene	106	107	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	102	102	80-120	73-127	0	0-20	
Vinyl Acetate	106	95	80-120	73-127	11	0-20	
Vinyl Chloride	93	92	72-126	63-135	2	0-10	
p/m-Xylene	98	98	80-120	73-127	0	0-20	
o-Xylene	100	98	80-120	73-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	94	93	75-129	66-138	1	0-13	
Tert-Butyl Alcohol (TBA)	94	94	66-126	56-136	0	0-24	
Diisopropyl Ether (DIPE)	104	103	77-125	69-133	1	0-13	
Ethyl-t-Butyl Ether (ETBE)	94	94	72-132	62-142	1	0-12	
Tert-Amyl-Methyl Ether (TAME)	98	99	77-125	69-133	2	0-10	

Total number of LCS compounds : 66

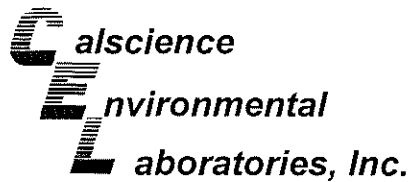
Total number of ME compounds : 0

Total number of ME compounds allowed : 3

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate

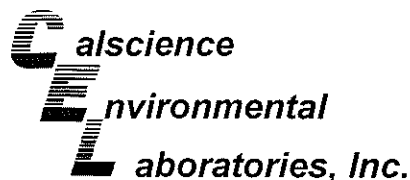
Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: N/A
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-119	Solid	GC/MS Z	03/31/09	03/31/09	090331L02		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	105	102	84-114	79-119	2	0-7	
Bromobenzene	104	105	80-120	73-127	1	0-20	
Bromochloromethane	93	95	80-120	73-127	2	0-20	
Bromodichloromethane	100	100	80-120	73-127	0	0-20	
Bromoform	98	98	80-120	73-127	1	0-20	
Bromomethane	103	97	80-120	73-127	5	0-20	
n-Butylbenzene	100	102	77-123	69-131	2	0-25	
sec-Butylbenzene	102	103	80-120	73-127	1	0-20	
tert-Butylbenzene	105	105	80-120	73-127	0	0-20	
Carbon Disulfide	99	95	80-120	73-127	4	0-20	
Carbon Tetrachloride	103	100	69-135	58-146	3	0-13	
Chlorobenzene	96	96	85-109	81-113	0	0-8	
Chloroethane	88	83	80-120	73-127	6	0-20	
Chloroform	141	95	80-120	73-127	38	0-20	
Chloromethane	95	95	80-120	73-127	0	0-20	
2-Chlorotoluene	99	97	80-120	73-127	2	0-20	
4-Chlorotoluene	102	102	80-120	73-127	0	0-20	
Dibromochloromethane	97	95	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	96	98	80-120	73-127	2	0-20	
1,2-Dibromoethane	97	99	80-120	73-127	2	0-20	
Dibromomethane	99	97	80-120	73-127	3	0-20	
1,2-Dichlorobenzene	98	100	80-110	75-115	2	0-10	
1,3-Dichlorobenzene	97	99	80-120	73-127	2	0-20	
1,4-Dichlorobenzene	98	99	80-120	73-127	1	0-20	
Dichlorodifluoromethane	111	112	80-120	73-127	0	0-20	
1,1-Dichloroethane	95	93	80-120	73-127	3	0-20	
1,2-Dichloroethane	108	107	80-120	73-127	1	0-20	
1,1-Dichloroethene	101	100	83-125	76-132	0	0-10	
c-1,2-Dichloroethene	88	86	80-120	73-127	3	0-20	
t-1,2-Dichloroethene	92	88	80-120	73-127	4	0-20	
1,2-Dichloropropane	97	96	79-115	73-121	1	0-25	
1,3-Dichloropropane	97	97	80-120	73-127	0	0-20	
2,2-Dichloropropane	97	94	80-120	73-127	4	0-20	
1,1-Dichloropropene	102	102	80-120	73-127	0	0-20	
c-1,3-Dichloropropene	96	97	80-120	73-127	2	0-20	
t-1,3-Dichloropropene	99	102	80-120	73-127	3	0-20	
Ethylbenzene	99	97	80-120	73-127	2	0-20	
Isopropylbenzene	103	102	80-120	73-127	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: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-119	Solid	GC/MS Z	03/31/09	03/31/09	090331L02		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
p-Isopropyltoluene	102	102	80-120	73-127	0	0-20	
Methylene Chloride	94	94	80-120	73-127	0	0-20	
Naphthalene	85	88	80-120	73-127	4	0-20	
n-Propylbenzene	100	100	80-120	73-127	1	0-20	
Styrene	101	99	80-120	73-127	2	0-20	
Ethanol	93	105	50-134	36-148	12	0-23	
1,1,1,2-Tetrachloroethane	101	100	80-120	73-127	1	0-20	
1,1,2,2-Tetrachloroethane	98	98	80-120	73-127	1	0-20	
Tetrachloroethene	91	95	80-120	73-127	4	0-20	
Toluene	97	98	79-115	73-121	1	0-8	
1,2,3-Trichlorobenzene	99	101	80-120	73-127	2	0-20	
1,2,4-Trichlorobenzene	98	99	80-120	73-127	1	0-20	
1,1,1-Trichloroethane	99	97	80-120	73-127	1	0-20	
1,1,2-Trichloroethane	91	92	80-120	73-127	1	0-20	
Trichloroethene	99	101	87-111	83-115	1	0-7	
Trichlorofluoromethane	107	104	80-120	73-127	2	0-20	
1,2,3-Trichloropropane	97	102	80-120	73-127	5	0-20	
1,2,4-Trimethylbenzene	106	107	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	102	102	80-120	73-127	0	0-20	
Vinyl Acetate	106	95	80-120	73-127	11	0-20	
Vinyl Chloride	93	92	72-126	63-135	2	0-10	
p/m-Xylene	98	98	80-120	73-127	0	0-20	
o-Xylene	100	98	80-120	73-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	94	93	75-129	66-138	1	0-13	
Tert-Butyl Alcohol (TBA)	94	94	66-126	56-136	0	0-24	
Diisopropyl Ether (DIPE)	104	103	77-125	69-133	1	0-13	
Ethyl-t-Butyl Ether (ETBE)	94	94	72-132	62-142	1	0-12	
Tert-Amyl-Methyl Ether (TAME)	98	99	77-125	69-133	2	0-10	

Total number of LCS compounds : 66

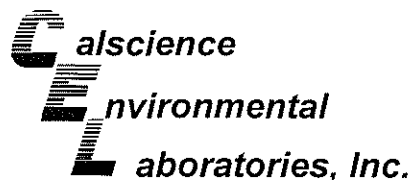
Total number of ME compounds : 0

Total number of ME compounds allowed : 3

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate

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

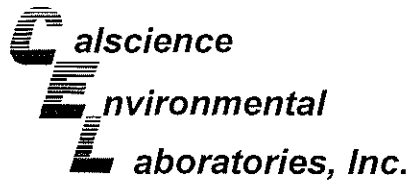
Date Received: N/A
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-120	Solid	GC/MS Z	04/01/09	04/01/09	090401L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	105	103	84-114	79-119	2	0-7	
Bromobenzene	113	113	80-120	73-127	0	0-20	
Bromochloromethane	105	109	80-120	73-127	4	0-20	
Bromodichloromethane	110	108	80-120	73-127	2	0-20	
Bromoform	111	115	80-120	73-127	3	0-20	
Bromomethane	119	120	80-120	73-127	1	0-20	
n-Butylbenzene	101	90	77-123	69-131	12	0-25	
sec-Butylbenzene	102	101	80-120	73-127	2	0-20	
tert-Butylbenzene	107	103	80-120	73-127	3	0-20	
Carbon Disulfide	104	108	80-120	73-127	4	0-20	
Carbon Tetrachloride	107	109	69-135	58-146	1	0-13	
Chlorobenzene	99	96	85-109	81-113	4	0-8	
Chloroethane	96	97	80-120	73-127	1	0-20	
Chloroform	107	108	80-120	73-127	2	0-20	
Chloromethane	110	109	80-120	73-127	1	0-20	
2-Chlorotoluene	100	101	80-120	73-127	1	0-20	
4-Chlorotoluene	100	100	80-120	73-127	0	0-20	
Dibromochloromethane	107	106	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	101	106	80-120	73-127	5	0-20	
1,2-Dibromoethane	100	97	80-120	73-127	3	0-20	
Dibromomethane	98	102	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	104	92	80-110	75-115	13	0-10	
1,3-Dichlorobenzene	103	104	80-120	73-127	0	0-20	
1,4-Dichlorobenzene	105	106	80-120	73-127	1	0-20	
Dichlorodifluoromethane	111	118	80-120	73-127	7	0-20	
1,1-Dichloroethane	106	111	80-120	73-127	5	0-20	
1,2-Dichloroethane	114	118	80-120	73-127	4	0-20	
1,1-Dichloroethene	108	110	83-125	76-132	1	0-10	
c-1,2-Dichloroethene	91	90	80-120	73-127	1	0-20	
t-1,2-Dichloroethene	98	99	80-120	73-127	1	0-20	
1,2-Dichloropropane	101	107	79-115	73-121	6	0-25	
1,3-Dichloropropane	99	94	80-120	73-127	5	0-20	
2,2-Dichloropropane	106	108	80-120	73-127	2	0-20	
1,1-Dichloropropene	95	93	80-120	73-127	2	0-20	
c-1,3-Dichloropropene	102	100	80-120	73-127	3	0-20	
t-1,3-Dichloropropene	102	97	80-120	73-127	5	0-20	
Ethylbenzene	99	99	80-120	73-127	0	0-20	
Isopropylbenzene	105	107	80-120	73-127	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: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-120	Solid	GC/MS Z	04/01/09	04/01/09	090401L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
p-Isopropyltoluene	103	101	80-120	73-127	2	0-20	
Methylene Chloride	95	99	80-120	73-127	4	0-20	
Naphthalene	88	90	80-120	73-127	3	0-20	
n-Propylbenzene	103	104	80-120	73-127	1	0-20	
Styrene	105	106	80-120	73-127	1	0-20	
Ethanol	108	115	50-134	36-148	6	0-23	
1,1,1,2-Tetrachloroethane	105	109	80-120	73-127	4	0-20	
1,1,2,2-Tetrachloroethane	102	104	80-120	73-127	2	0-20	
Tetrachloroethene	85	91	80-120	73-127	7	0-20	
Toluene	102	99	79-115	73-121	3	0-8	
1,2,3-Trichlorobenzene	108	113	80-120	73-127	4	0-20	
1,2,4-Trichlorobenzene	110	109	80-120	73-127	1	0-20	
1,1,1-Trichloroethane	98	101	80-120	73-127	3	0-20	
1,1,2-Trichloroethane	95	93	80-120	73-127	3	0-20	
Trichloroethene	103	108	87-111	83-115	5	0-7	
Trichlorofluoromethane	121	128	80-120	73-127	5	0-20	
1,2,3-Trichloropropane	101	107	80-120	73-127	5	0-20	
1,2,4-Trimethylbenzene	102	103	80-120	73-127	0	0-20	
1,3,5-Trimethylbenzene	104	106	80-120	73-127	2	0-20	
Vinyl Acetate	115	115	80-120	73-127	0	0-20	
Vinyl Chloride	99	97	72-126	63-135	2	0-10	
p/m-Xylene	101	101	80-120	73-127	0	0-20	
o-Xylene	100	100	80-120	73-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	95	97	75-129	66-138	3	0-13	
Tert-Butyl Alcohol (TBA)	94	95	66-126	56-136	2	0-24	
Diisopropyl Ether (DIPE)	106	110	77-125	69-133	3	0-13	
Ethyl-t-Butyl Ether (ETBE)	95	102	72-132	62-142	7	0-12	
Tert-Amyl-Methyl Ether (TAME)	90	93	77-125	69-133	4	0-10	

Total number of LCS compounds : 66

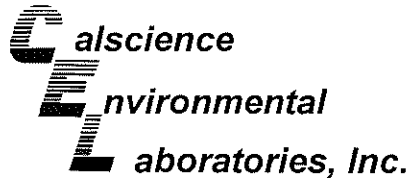
Total number of ME compounds : 1

Total number of ME compounds allowed : 3

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate

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

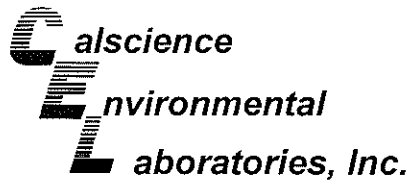
Date Received: N/A
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-122	Solid	GC/MS Z	04/02/09	04/02/09	090402L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	103	102	84-114	79-119	1	0-7	
Bromobenzene	96	93	80-120	73-127	2	0-20	
Bromochloromethane	98	86	80-120	73-127	13	0-20	
Bromodichloromethane	106	94	80-120	73-127	12	0-20	
Bromoform	94	97	80-120	73-127	3	0-20	
Bromomethane	114	86	80-120	73-127	28	0-20	
n-Butylbenzene	103	98	77-123	69-131	5	0-25	
sec-Butylbenzene	103	100	80-120	73-127	4	0-20	
tert-Butylbenzene	100	112	80-120	73-127	11	0-20	
Carbon Disulfide	103	91	80-120	73-127	12	0-20	
Carbon Tetrachloride	100	93	69-135	58-146	8	0-13	
Chlorobenzene	104	98	85-109	81-113	6	0-8	
Chloroethane	108	96	80-120	73-127	12	0-20	
Chloroform	101	88	80-120	73-127	13	0-20	
Chloromethane	96	88	80-120	73-127	9	0-20	
2-Chlorotoluene	102	100	80-120	73-127	1	0-20	
4-Chlorotoluene	100	94	80-120	73-127	6	0-20	
Dibromochloromethane	99	102	80-120	73-127	2	0-20	
1,2-Dibromo-3-Chloropropane	95	93	80-120	73-127	3	0-20	
1,2-Dibromoethane	94	93	80-120	73-127	0	0-20	
Dibromomethane	106	96	80-120	73-127	10	0-20	
1,2-Dichlorobenzene	96	93	80-110	75-115	3	0-10	
1,3-Dichlorobenzene	97	94	80-120	73-127	4	0-20	
1,4-Dichlorobenzene	97	97	80-120	73-127	0	0-20	
Dichlorodifluoromethane	103	91	80-120	73-127	13	0-20	
1,1-Dichloroethane	106	93	80-120	73-127	13	0-20	
1,2-Dichloroethane	101	99	80-120	73-127	2	0-20	
1,1-Dichloroethene	107	94	83-125	76-132	13	0-10	
c-1,2-Dichloroethene	96	87	80-120	73-127	9	0-20	
t-1,2-Dichloroethene	99	88	80-120	73-127	13	0-20	
1,2-Dichloropropane	105	107	79-115	73-121	2	0-25	
1,3-Dichloropropane	95	95	80-120	73-127	1	0-20	
2,2-Dichloropropane	102	95	80-120	73-127	8	0-20	
1,1-Dichloropropene	102	89	80-120	73-127	14	0-20	
c-1,3-Dichloropropene	106	96	80-120	73-127	10	0-20	
t-1,3-Dichloropropene	102	99	80-120	73-127	2	0-20	
Ethylbenzene	99	99	80-120	73-127	0	0-20	
Isopropylbenzene	103	104	80-120	73-127	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: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-122	Solid	GC/MS Z	04/02/09	04/02/09	090402L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
p-Isopropyltoluene	102	101	80-120	73-127	2	0-20	
Methylene Chloride	105	97	80-120	73-127	7	0-20	
Naphthalene	91	92	80-120	73-127	1	0-20	
n-Propylbenzene	97	96	80-120	73-127	1	0-20	
Styrene	106	97	80-120	73-127	8	0-20	
Ethanol	109	90	50-134	36-148	19	0-23	
1,1,1,2-Tetrachloroethane	92	97	80-120	73-127	5	0-20	
1,1,2,2-Tetrachloroethane	92	92	80-120	73-127	0	0-20	
Tetrachloroethane	108	89	80-120	73-127	20	0-20	
Toluene	105	91	79-115	73-121	14	0-8	RB
1,2,3-Trichlorobenzene	93	73	80-120	73-127	23	0-20	
1,2,4-Trichlorobenzene	94	99	80-120	73-127	5	0-20	
1,1,1-Trichloroethane	103	93	80-120	73-127	9	0-20	
1,1,2-Trichloroethane	96	95	80-120	73-127	0	0-20	
Trichloroethene	110	102	87-111	83-115	7	0-7	
Trichlorofluoromethane	104	92	80-120	73-127	13	0-20	
1,2,3-Trichloropropane	103	104	80-120	73-127	1	0-20	
1,2,4-Trimethylbenzene	102	102	80-120	73-127	0	0-20	
1,3,5-Trimethylbenzene	107	107	80-120	73-127	0	0-20	
Vinyl Acetate	101	92	80-120	73-127	9	0-20	
Vinyl Chloride	96	90	72-126	63-135	6	0-10	
p/m-Xylene	98	102	80-120	73-127	3	0-20	
o-Xylene	107	94	80-120	73-127	13	0-20	
Methyl-t-Butyl Ether (MTBE)	102	91	75-129	66-138	11	0-13	
Tert-Butyl Alcohol (TBA)	89	91	66-126	56-136	2	0-24	
Diisopropyl Ether (DIPE)	99	90	77-125	69-133	10	0-13	
Ethyl-t-Butyl Ether (ETBE)	109	102	72-132	62-142	6	0-12	
Tert-Amyl-Methyl Ether (TAME)	97	96	77-125	69-133	1	0-10	

Total number of LCS compounds : 66

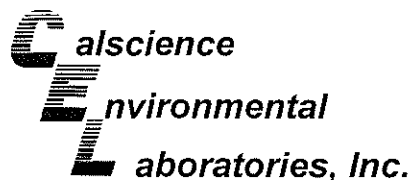
Total number of ME compounds : 0

Total number of ME compounds allowed : 3

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

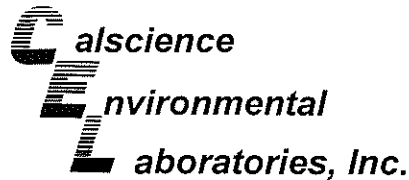
Date Received: N/A
Work Order No: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-123	Solid	GC/MS Z	04/02/09	04/02/09	090402L02		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	103	102	84-114	79-119	1	0-7	
Bromobenzene	96	93	80-120	73-127	2	0-20	
Bromochloromethane	98	86	80-120	73-127	13	0-20	
Bromodichloromethane	106	94	80-120	73-127	12	0-20	
Bromoforn	94	97	80-120	73-127	3	0-20	
Bromomethane	114	86	80-120	73-127	28	0-20	
n-Butylbenzene	103	98	77-123	69-131	5	0-25	
sec-Butylbenzene	103	100	80-120	73-127	4	0-20	
tert-Butylbenzene	100	112	80-120	73-127	11	0-20	
Carbon Disulfide	103	91	80-120	73-127	12	0-20	
Carbon Tetrachloride	100	93	69-135	58-146	8	0-13	
Chlorobenzene	104	98	85-109	81-113	6	0-8	
Chloroethane	108	96	80-120	73-127	12	0-20	
Chloroform	101	88	80-120	73-127	13	0-20	
Chloromethane	96	88	80-120	73-127	9	0-20	
2-Chlorotoluene	102	100	80-120	73-127	1	0-20	
4-Chlorotoluene	100	94	80-120	73-127	6	0-20	
Dibromochloromethane	99	102	80-120	73-127	2	0-20	
1,2-Dibromo-3-Chloropropane	95	93	80-120	73-127	3	0-20	
1,2-Dibromoethane	94	93	80-120	73-127	0	0-20	
Dibromomethane	106	96	80-120	73-127	10	0-20	
1,2-Dichlorobenzene	96	93	80-110	75-115	3	0-10	
1,3-Dichlorobenzene	97	94	80-120	73-127	4	0-20	
1,4-Dichlorobenzene	97	97	80-120	73-127	0	0-20	
Dichlorodifluoromethane	103	91	80-120	73-127	13	0-20	
1,1-Dichloroethane	106	93	80-120	73-127	13	0-20	
1,2-Dichloroethane	101	99	80-120	73-127	2	0-20	
1,1-Dichloroethene	107	94	83-125	76-132	13	0-10	
c-1,2-Dichloroethene	96	87	80-120	73-127	9	0-20	
t-1,2-Dichloroethene	99	88	80-120	73-127	13	0-20	
1,2-Dichloropropane	105	107	79-115	73-121	2	0-25	
1,3-Dichloropropane	95	95	80-120	73-127	1	0-20	
2,2-Dichloropropane	102	95	80-120	73-127	8	0-20	
1,1-Dichloropropene	102	89	80-120	73-127	14	0-20	
c-1,3-Dichloropropene	106	96	80-120	73-127	10	0-20	
t-1,3-Dichloropropene	102	99	80-120	73-127	2	0-20	
Ethylbenzene	99	99	80-120	73-127	0	0-20	
Isopropylbenzene	103	104	80-120	73-127	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: 09-03-2418
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-709-123	Solid	GC/MS Z	04/02/09	04/02/09	090402L02		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD_CL	Qualifiers
p-Isopropyltoluene	102	101	80-120	73-127	2	0-20	
Methylene Chloride	105	97	80-120	73-127	7	0-20	
Naphthalene	91	92	80-120	73-127	1	0-20	
n-Propylbenzene	97	96	80-120	73-127	1	0-20	
Styrene	106	97	80-120	73-127	8	0-20	
Ethanol	109	90	50-134	36-148	19	0-23	
1,1,1,2-Tetrachloroethane	92	97	80-120	73-127	5	0-20	
1,1,2,2-Tetrachloroethane	92	92	80-120	73-127	0	0-20	
Tetrachloroethene	108	89	80-120	73-127	20	0-20	
Toluene	105	91	79-115	73-121	14	0-8	RB
1,2,3-Trichlorobenzene	93	73	80-120	73-127	23	0-20	
1,2,4-Trichlorobenzene	94	99	80-120	73-127	5	0-20	
1,1,1-Trichloroethane	103	93	80-120	73-127	9	0-20	
1,1,2-Trichloroethane	96	95	80-120	73-127	0	0-20	
Trichloroethene	110	102	87-111	83-115	7	0-7	
Trichlorofluoromethane	104	92	80-120	73-127	13	0-20	
1,2,3-Trichloropropane	103	104	80-120	73-127	1	0-20	
1,2,4-Trimethylbenzene	102	102	80-120	73-127	0	0-20	
1,3,5-Trimethylbenzene	107	107	80-120	73-127	0	0-20	
Vinyl Acetate	101	92	80-120	73-127	9	0-20	
Vinyl Chloride	96	90	72-126	63-135	6	0-10	
p/m-Xylene	98	102	80-120	73-127	3	0-20	
o-Xylene	107	94	80-120	73-127	13	0-20	
Methyl-t-Butyl Ether (MTBE)	102	91	75-129	66-138	11	0-13	
Tert-Butyl Alcohol (TBA)	89	91	66-126	56-136	2	0-24	
Diisopropyl Ether (DIPE)	99	90	77-125	69-133	10	0-13	
Ethyl-t-Butyl Ether (ETBE)	109	102	72-132	62-142	6	0-12	
Tert-Amyl-Methyl Ether (TAME)	97	96	77-125	69-133	1	0-10	

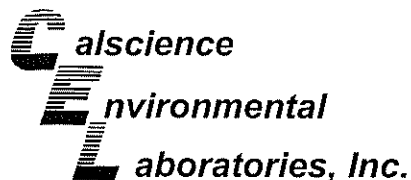
Total number of LCS compounds : 66

Total number of ME compounds : 0

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: 09-03-2418

<u>Qualifier</u>	<u>Definition</u>
AX	Sample too dilute to quantify surrogate.
AZ	Surrogate recovery outside of acceptance limits due to matrix interference.
BA, AY	BA = Relative percent difference out of control. AY = 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.
DU	Insufficient sample quantity for matrix spike/dup matrix spike.
ET	Sample was extracted past end of recommended max. holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	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, AY	LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected.
LH, AY	LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected.
LM, AY	LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LN, AY	LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.



<u>Qualifier</u>	<u>Definition</u>
LW	Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
LX	Quantitation of unknown hydrocarbon(s) in sample based on diesel.
MB	Analyte present in the method blank.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RA	RPD exceeds limit due to matrix interf.; % recovs. within limits.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.



BP/ARC Project Name: _____

Req Due Date (mm/dd/yy):

12/18

Rush TAT: Yes ___ No X

BP/ARC Facility No: ARLO 2035

Lab Work Order Number: _____

Lab Name: <u>CAISCIENCE</u>				BP/ARC Facility Address: <u>1001 SAN PABLO AVE</u>				Consultant/Contractor: <u>STRATUS</u>																		
Lab Address: <u>7440 LINCOLN WAY, GARDEN GROVE, CA.</u>				City, State, ZIP Code: <u>HILBANG, CA.</u>				Consultant/Contractor Project No: <u>E2035</u>																		
Lab PM: <u>RICHARD VILLA-FANJA</u>				Lead Regulatory Agency: <u>ALAMEDA COUNTY</u>				Address: <u>3330 CAMELON PARK PL #550</u>																		
Lab Phone: _____				California Global ID No.: <u>T0600100081</u>				Consultant/Contractor PM: <u>JIM JOHNSON</u>																		
Lab Shipping Acct: <u>9255</u>				Enfos Proposal No: <u>000P9-0004</u>				Phone: <u>530 676 6000</u>																		
Lab Bottle Order No: _____				Accounting Mode: Provision <u>X</u> OOC-BU ___ OOC-RM ___				Email EDD To: <u>CHUFF@STRATUS INC. NET</u>																		
Other Info: _____				Stage: <u>OPERATE</u> Activity: <u>FIELD CHARACTERIZATION</u>				Invoice To: BP/ARC <u>X</u> Contractor ___																		
BP/ARC EBM: <u>PAUL SUPPLE</u>				Matrix				Requested Analyses				Report Type & QC Level														
EBM Phone: _____				<table border="1"> <tr> <th>No. Containers / Preservative</th> <th>Soil / Solid</th> <th>Water / Liquid</th> <th>Air / Vapor</th> <th>Total Number of Containers</th> <th>Unpreserved</th> <th>H₂SO₄</th> <th>HNO₃</th> <th>HCl</th> <th>Methanol</th> <th>GRO</th> <th>BTEX</th> <th>*SO₂</th> <th>EDB</th> <th>1,2 DCA</th> </tr> </table>				No. Containers / Preservative	Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO	BTEX	*SO ₂	EDB	1,2 DCA	Standard <u>X</u>			
No. Containers / Preservative	Soil / Solid	Water / Liquid	Air / Vapor					Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO	BTEX	*SO ₂	EDB	1,2 DCA								
EBM Email: <u>PAUL.SUPPLE@BP.COM</u>				Full Data Package ___																						
Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO	BTEX	*SO ₂	EDB	1,2 DCA	Comments								
1	MW-8 11'	3/26/09	0840	X			1	X						X	X	X	X									
2	MW-8 13'		0845											X	X	X	X		SO ₂ =? ETR MTR PCR TAN TBA.							
3	MW-8 16'		0912																							
4	MW-8 19'		0955																							
5	MW-7 8'		1200																							
6	MW-7 13'		1225																							
7	MW-7 14'		1245																							
8	MW-7 15'		1255																							
9	MW-7 8'		1510																							
10	MW-9 9'		1520																							
11	MW-9 11'		1530																							
12	MW-9 13'		1540																							
Sampler's Name: <u>CF</u>				Relinquished By / Affiliation: <u>[Signature]</u>				Date: <u>3/26/09</u>		Time: <u>1700</u>		Accepted By / Affiliation: <u>[Signature]</u>				Date: <u>3/27/09</u>		Time: <u>1000</u>								
Sampler's Company: <u>STRATUS</u>				Shipment Method: <u>GRSO</u>				Ship Date: <u>3/26/09</u>				Shipment Tracking No: <u>106160333</u>														
Special Instructions: _____																										

THIS LINE - LAB USE ONLY: 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

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: STRATUS

DATE: 03/27/09

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

Temperature 1.4 °C - 0.2 °C (CF) = 1.2 °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
- Sample _____ No (Not Intact) Not Present

Initial: JP
Initial: KVI

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
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 COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

- Solid:** 4ozCGJ 8ozCGJ 16ozCGJ ¹²Sleeve EnCores® TerraCores® ~~test~~
- Water:** VOA VOA_h VOA_{na2} 125AGB 125AGB_h 125AGB_{po4} 1AGB 1AGB_{na2}
- 1AGB_s 500AGB 500AGB_s 250CGB 250CGB_s 1PB 500PB 500PB_{na} 250PB
- 250PB_n 125PB 125PB_{znna} 100PBsterile 100PB_{na2} _____ _____ _____

Air: Tedlar® Summa® _____ **Sludge/Other:** _____ **Checked/Labeled by:** KVI

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

Preservative: h:HCL n:HNO₃ na₂:Na₂S₂O₃ na:NaOH p:H₃PO₄ s:H₂SO₄ znna:ZnAc₂+NaOH **Scanned by:** YL

APPENDIX C

GEOTRACKER UPLOAD CONFIRMATION REPORTS

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A GEO_MAP FILE

SUCCESS

Your GEO_MAP file has been successfully submitted!

<u>Submittal Type:</u>	GEO_MAP
<u>Facility Global ID:</u>	T0600100081
<u>Facility Name:</u>	ARCO #02035
<u>File Name:</u>	1001 San Pablo Ave_2009-04-20.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>	5/15/2009 4:45:30 PM
<u>Confirmation Number:</u>	7606560826

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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>	T0600100081
<u>Field Point:</u>	MW-7
<u>Facility Name:</u>	ARCO #02035
<u>File Name:</u>	GEO_BORE MW-7.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>	5/15/2009 4:52:55 PM
<u>Confirmation Number:</u>	8416628181

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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>	T0600100081
<u>Field Point:</u>	MW-8
<u>Facility Name:</u>	ARCO #02035
<u>File Name:</u>	GEO_BORE MW-8.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>	5/15/2009 4:53:25 PM
<u>Confirmation Number:</u>	8744457423

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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>	T0600100081
<u>Field Point:</u>	MW-9
<u>Facility Name:</u>	ARCO #02035
<u>File Name:</u>	GEO_BORE MW-9.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>	5/15/2009 4:53:52 PM
<u>Confirmation Number:</u>	8699388802

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GEOTRACKER ESI

UPLOADING A GEO_XY FILE

SUCCESS

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

<u>Submittal Type:</u>	GEO_XY
<u>Submittal Title:</u>	GEO_XY MW-1 to 9, VW-1 to 9, AS-1, AS-2, RW-1
<u>Facility Global ID:</u>	T0600100081
<u>Facility Name:</u>	ARCO #02035
<u>File Name:</u>	GEO_XY.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>	5/15/2009 4:37:25 PM
<u>Confirmation Number:</u>	4156978785

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UPLOADING A GEO_Z FILE

SUCCESS

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

<u>Submittal Type:</u>	GEO_Z
<u>Submittal Title:</u>	GEO_Z MW-1 to 9, VW-1 to 9, AS-1, AS-2, RW-1
<u>Facility Global ID:</u>	T0600100081
<u>Facility Name:</u>	ARCO #02035
<u>File Name:</u>	GEO_Z.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>	5/15/2009 4:44:14 PM
<u>Confirmation Number:</u>	8861299812

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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>	SWC
<u>Facility Global ID:</u>	T0600100081
<u>Facility Name:</u>	ARCO #02035
<u>File Name:</u>	09032417.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>	5/19/2009 3:46:22 PM
<u>Confirmation Number:</u>	9150314807

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[VIEW DETECTIONS REPORT](#)

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>	Soil Sampling MW-7, 8, 9
<u>Facility Global ID:</u>	T0600100081
<u>Facility Name:</u>	ARCO #02035
<u>File Name:</u>	09032418 fix.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>	5/19/2009 4:17:30 PM
<u>Confirmation Number:</u>	9888683497

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[VIEW DETECTIONS REPORT](#)