Mr. Jerry Wickham
Alameda County
Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: B&C Gas Mini Mart, 2008 First Street, Livermore, California
(ACEHD Case No. RO0000278)

Dear Mr. Wickham:

Stratus Environmental, Inc. (Stratus) has recently prepared a document titled *Site Investigation Report* on my behalf. The report was prepared in regards to Alameda County Fuel Leak Case No. RO0000278, located at 2008 First Street, Livermore, California.

I have reviewed a copy of this report, sent to me by representatives of Stratus, and "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."

Sincerely,

9/11/13

Balaji Angle
B&C Gas Mini Mart

STRATUS
ENVIRONMENTAL, INC.

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

September 17, 2013
Project No. 2146-2008-01

Mr. Jerry Wickham
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: Site Investigation Report
B&C Gas Mini Mart
2008 First Street
Livermore, California

Dear Mr. Wickham:

On behalf of Mr. Balaji Angle, Stratus Environmental, Inc. (Stratus) has prepared this *Site Investigation Report* for the B&C Gas Mini Mart, located at 2008 First Street, Livermore, California (the Site, see Figures 1 and 2). Petroleum hydrocarbon impact to the soil and groundwater has previously been documented at the subject property, and Alameda County Environmental Health Department (ACEHD) currently oversees an environmental case for the site. On June 24, 2013, ACEHD personnel issued a letter indicating that the site's environmental case could potentially be closed following adoption of the State Water Resources Control Board's 'Low Threat Closure Policy' (LTCP). Prior to closure, ACEHD requested an evaluation of site conditions against the LTCP, and indicated that a minimum of two confirmation soil borings were necessary to evaluate current concentrations of petroleum products in soil in areas where the highest concentrations of fuel contaminants were historically detected.

On July 25, 2013, Stratus submitted a document titled *Work Plan for Limited Subsurface Investigation and Low Threat Closure Policy Site Evaluation*, on behalf of Mr. Angle. The document included a scope of work to advance two directional soil borings beneath the site's underground storage tanks (USTs) for collection of soil samples in this area. After reviewing the work plan, ACEHD issued a letter, dated July 31, 2013, approving the proposed scope of work. This report presents a description of activities completed in conjunction with boring advancement, and presents findings associated with performance of this work.

SCOPE OF WORK

The objective of the proposed scope of work was to evaluate current concentrations of petroleum hydrocarbon contaminants beneath the southern end of the former (and current) UST complex, where the highest levels of petroleum hydrocarbons were historically detected in soil. To accomplish these objectives, Stratus implemented the following work activities:

- Advanced two soil borings (AB-1 and AB-2) within 44-foot length boreholes at an angle of approximately 15-degrees
- Collected soil samples during the advancement of borings AB-1 and AB-2 for lithologic evaluation and chemical analysis.

Prior to implementation of field activities, a drilling permit was obtained from Zone 7 Water Agency. Drilling locations were marked 48 hours prior to fieldwork. Underground Service Alert, ACEHD, Mr. Angle, and Zone 7 Water Agency were notified 48 hours prior to beginning work activities. A description of field practices and procedures utilized by Stratus and drilling contractor personnel during boring advancement and soil sample collection are described in Appendix A. All work was conducted under the direct supervision of a State of California Professional Geologist. A copy of the drilling permit is included in Appendix B.

Field Activities

Soil Borings

A Stratus geologist was onsite to oversee Penecore Drilling, Inc. (C-57 #906899) complete the drilling activities on August 15, 2013. Each soil boring (AB-1 and AB-2) was advanced using a limited access drill rig equipped with a dual-walled soil coring system (approximately 2.5-inches in diameter). As stated earlier, both borings were advanced at a 15-degree angle in order to allow for soil sample collection beneath the former (and current) UST complex. Soil was retained from the subsurface in acetate liners situated inside of the sampling core barrel. Soils recovered in the acetate liners were classified onsite using the Unified Soil Classification System. After logging the soils, select sections of the soil core were lined with Teflon™ sheets, capped, and sealed for analytical testing. Each sample was labeled, placed in a resealable plastic bag, and stored in an ice-chilled cooler. Strict chain-of-custody procedures were followed from the time the samples were collected until the time the samples were relinquished to the laboratory. Boring logs detailing soil lithologies encountered during this investigation are presented in Appendix B. Soil boring logs have also been uploaded to the State of California's GeoTracker database, and documentation of these uploads (GeoBore) are provided in Appendix D.

Additional soil from select intervals was placed and sealed in plastic bags to allow the accumulation of volatile organic compound (VOC) vapors within the airspace in the bags. A portable photoionization detector (PID) was used to measure VOC concentrations from each sample in parts per million by volume (ppmv). PID results are included on the boring logs presented in Appendix B. PID concentrations and soil types were evaluated prior to submitting soil samples for chemical analysis.

Analytical Methods

Soil samples were forwarded to Alpha Analytical, Inc., a California state-certified laboratory (ELAP #2019), for chemical analysis under strict chain-of-custody procedures. The soil samples were analyzed for gasoline range organics (GRO) using EPA Method SW8015B/SW8260B, and for benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds), methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), and naphthalene using EPA Method SW8260B. The soil samples collected above approximately 10 feet below ground surface (bgs) were additionally analyzed for polynuclear aromatic hydrocarbons (PAH's) using EPA Method SW8270C. Soil analytical results are summarized on Table 1, and certified analytical reports and chain-of-custody documentation are provided in Appendix C. The certified analytical reports prepared by Alpha Analytical have been uploaded to the GeoTracker database (see Appendix D for documentation). Table 1 also includes sample nomenclature assigned in the field, and the actual depth of each sample, calculated based on the angle of boring advancement.

Findings

Soil Analytical Results

At boring AB-1, the highest concentrations of petroleum hydrocarbons were detected in soil samples between approximately 24 and 39 feet bgs, and at boring AB-2, the highest concentrations of petroleum hydrocarbons were detected in soil samples collected between approximately 29 and 39 feet bgs. GRO and benzene were reported at maximum concentrations of 2,600 mg/Kg and 16 mg/Kg, respectively, at boring AB-1 (sample AB-1-40), and 560 mg/Kg and 1.6 mg/Kg, respectively, at boring AB-2 (sample AB-2-35 for GRO and sample AB-2-40 for benzene). Fuel contaminant levels appear to decline appreciably in the UST area below approximately 40 feet bgs; at boring AB-1, GRO levels decline from 2,600 mg/Kg at 39 feet bgs to 8.3 mg/Kg at 43 feet bgs, and at boring AB-2, GRO levels decline from 200 mg/Kg at 39 feet bgs to 54 mg/Kg at 43 feet bgs. MTBE was reported at maximum concentrations of 2.0 mg/Kg at boring AB-1 (34 feet bgs) and 0.43 mg/Kg at boring AB-2 (39 feet bgs). Naphthalene was detected in most soil samples collected below 24 feet bgs, with naphthalene concentrations ranging from 13 mg/Kg to 35 mg/Kg at boring AB-1 and from 0.36 mg/Kg to 7.8 mg/Kg at

boring AB-2. Benzene, ethylbenzene, naphthalene and PAH's were not detected in any soil samples collected above 10 feet bgs.

Appendix E provides a figure and table illustrating soil analytical results and sampling locations from beneath the former UST complex in 1996. In the area near boring AB-1, GRO and benzene were detected at concentrations of 8,500 mg/Kg and 61 mg/Kg, respectively, at 14 feet bgs, and near boring AB-2, GRO and benzene were detected at concentrations of 7,500 mg/Kg and 33 mg/Kg, respectively, in a 14-foot depth sample. Contaminant levels in all of the samples collected during the current phase of work are considerably lower than concentrations observed at 14 feet bgs in 1996.

DISCUSSION

In our opinion, none of the data collected during this phase of investigation would prohibit closure of the site's environmental case under the LTCP. Benzene, ethylbenzene, naphthalene, and PAH concentrations in soil samples collected from borings AB-1 and AB-2 above 10 feet bgs meet the criteria for direct contact and outdoor air exposure specified in the LTCP. All of the ethylbenzene and naphthalene concentrations detected during this phase of investigation (up to 44 feet bgs) meet the commercial property outdoor air exposure property levels mentioned in the LTCP (although the LTCP is only concerned with soil above 10 feet bgs), and benzene concentrations detected in only two samples during this phase of investigation (deeper than 10 feet bgs) exceed the outdoor air exposure levels mentioned in the LTCP. Laterally, petroleum hydrocarbon concentrations in soil decline appreciably with distance from the USTs, as evidenced by recent soil analytical data collected during drilling of well borings SVE-2 and SVE-4A/B, and residual petroleum hydrocarbon impact documented beneath the USTs should not inhibit environmental case closure under the LTCP criteria. As previously established, the area surrounding the site receives water from a municipal source and the groundwater contaminant plume in the site vicinity appears stable and shows decline in contaminant concentration levels.

Pending a review of this document by ACEHD personnel, and the agency's decision regarding the case closure recommendation presented in this document, Stratus will contact ACEHD regarding the future course of action for the site's environmental case. Again, we feel that the site can be closed under the LTCP in its current condition and recommend proceeding with destruction of the site's remediation and groundwater monitoring wells to allow for final closeout of the environmental case on the subject property.

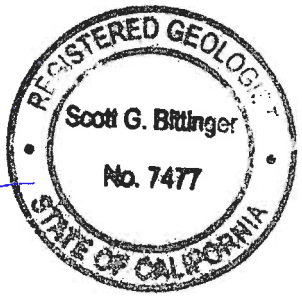
LIMITATIONS

This report was prepared in general accordance with accepted standards of care that existed at the time this work was performed. No other warranty, expressed or implied, is made. Conclusions and recommendations are based on field observations and data obtained from this work and previous investigations. It should be recognized that definition and evaluation of geologic conditions is a difficult and somewhat inexact science. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface conditions present. More extensive studies may be performed to reduce uncertainties. This report is solely for the use and information of our client unless otherwise noted.

If you have any questions or comments concerning this report, please contact Scott Bittinger at (530) 676-2062.

Sincerely,

STRATUS ENVIRONMENTAL, INC.



Scott G. Bittinger, P.G.
Project Manager

Gowri S. Kowtha, P.E.
Principal Engineer

Attachments:

Table 1	Soil Analytical Results
Figure 1	Site Location Map
Figure 2	Site Plan
Appendix A	Field Practices and Procedures
Appendix B	Drilling Permit and Soil Boring Logs
Appendix C	Certified Analytical Reports and Chain-of-Custody Records
Appendix D	Geotracker Data Upload Confirmation Sheets
Appendix E	July 1996 Compliance Soil Sample Results and Map

cc: Mr. Balaji Angle, B&C Gas Mini Mart

TABLE 1
SOIL ANALYTICAL RESULTS
B&C Gas Mini Mart
2008 First Street, Livermore, California

Sample ID	Borehole Length (feet)	Sample Depth (feet bgs)	Date Collected	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	TBA (mg/Kg)	Naphthalene (mg/Kg)	PAH's (mg/Kg)
Boring AB-1												
AB-1-5	5	4.8	08/15/13	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.5	<0.04	ND
AB-1-10	10	9.6	08/15/13	<1.0	<0.005	<0.005	<0.005	<0.005	**0.031**	<0.5	<0.04	ND
AB-1-25	25	24.1	08/15/13	**2,300**	<2.5*	**3.8**	**31**	**276**	<2.5*	<250*	**21**	NA
AB-1-30	30	29	08/15/13	**2,000**	**1.3**	**71**	**48**	**283**	<1.3*	<130*	**13**	NA
AB-1-35	35	33.8	08/15/13	**1,400**	**12**	**29**	**30**	**164**	**2.0**	<50*	**30**	NA
AB-1-40	40	38.6	08/15/13	**2,600**	**16**	**3.2**	**53**	**270**	**1.4**	<80*	**35**	NA
AB-1-44	44	42.5	08/15/13	**8.3**	**0.009**	<0.005	**0.056**	**0.087**	**0.0054**	<0.5	<0.04	NA
Boring AB-2												
AB-2-5	5	4.8	08/15/13	<1.0	<0.005	<0.005	<0.005	**0.0089**	<0.005	<0.5	<0.04	ND
AB-2-10	10	9.6	08/15/13	<1.0	<0.005	**0.0092**	<0.005	**0.0076**	<0.005	<0.5	<0.04	ND
AB-2-25	25	24.1	08/15/13	**1.2**	**0.0092**	**0.079**	**0.014**	**0.102**	**0.0059**	<0.5	<0.04	NA
AB-2-30	30	29	08/15/13	**270**	**0.13**	<0.1*	**4.0**	**27.1**	**0.14**	<10*	**5.7**	NA
AB-2-35	35	33.8	08/15/13	**560**	**1.2**	<0.2*	**13**	**51.53**	**0.3**	<20*	**7.8**	NA
AB-2-40	40	38.6	08/15/13	**200**	**1.6**	**1.2**	**4.0**	**23.4**	**0.43**	<10*	**3.2**	NA
AB-2-44	44	42.5	08/15/13	**54**	<0.01*	<0.01*	**0.066**	**0.172**	<0.01*	<1.0*	**0.36**	NA

TABLE 1
SOIL ANALYTICAL RESULTS
B&C Gas Mini Mart
2008 First Street, Livermore, California

Sample ID	Borehole Length (feet)	Sample Depth (feet bgs)	Date Collected	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	TBA (mg/Kg)	Naphthalene (mg/Kg)	PAH's (mg/Kg)

Explanation

Note: Borehole advanced at an angle of approximately 15 degrees from vertical

GRO = Gasoline range organics / total petroleum hydrocarbons as gasoline

BTEX = Benzene, toluene, ethylbenzene, and xylenes

MTBE = Methyl tertiary butyl ether

TBA = Tertiary buyl alcohol

PAH's = Polynuclear aromatic hydrocarbons

bgs = below ground surface

mg/Kg = milligrams per kilogram

* = Reporting limits increased due to high concentrations of target analytes

ND = No PAH's were detected in samples

NA = No chemical analyses for PAH's were performed

Analytical Laboratory

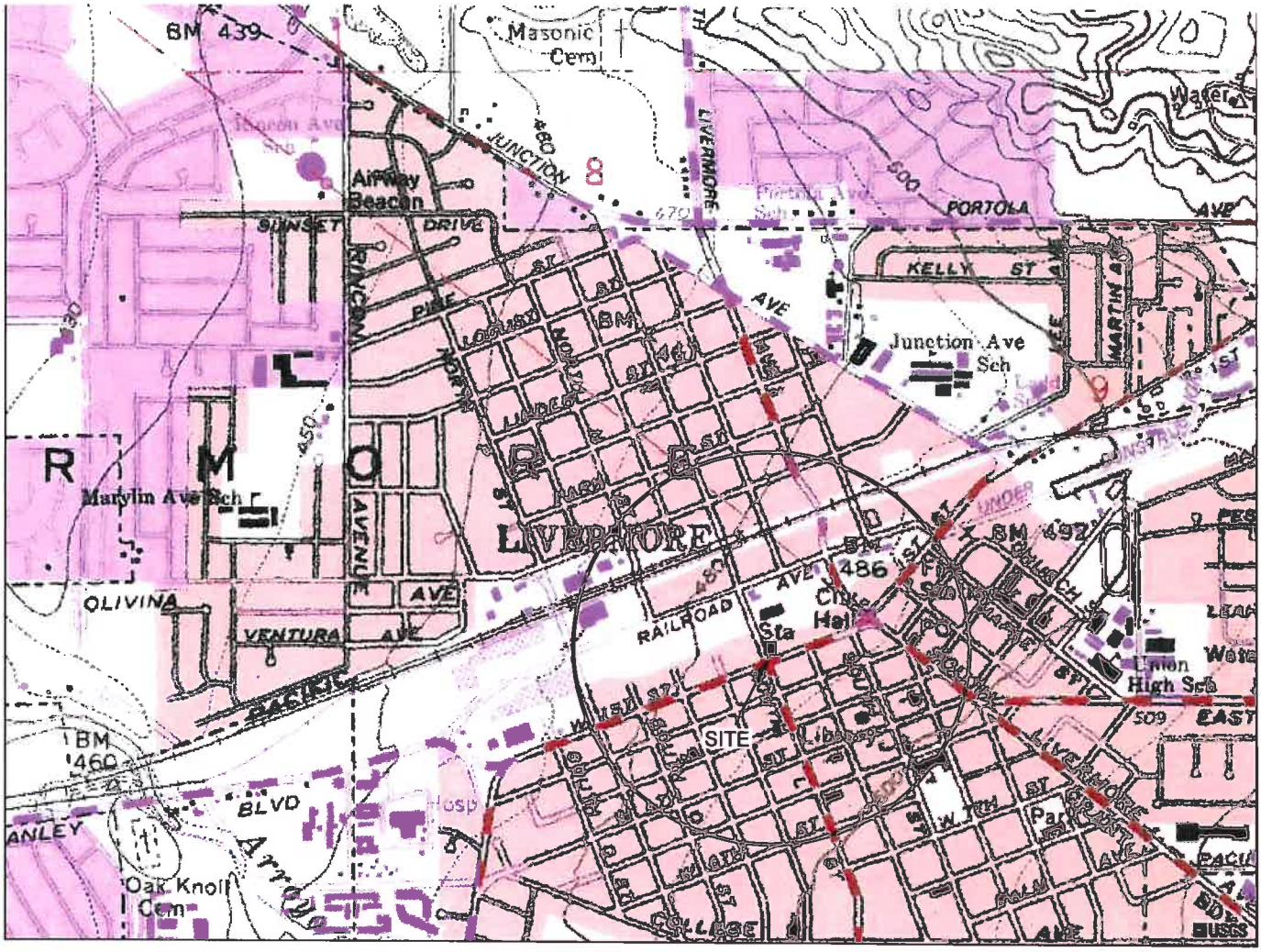
Alpha Analytical, Inc. (ELAP #2019)

Analytical Methods

GRO analyzed using EPA Method SW8015B/SW8260B

BTEX, MTBE, TBA, and naphthalene analyzed using EPA Method SW8260B

PAH's analyzed using EPA Method SW8270C



GENERAL NOTES:
BASE MAP FROM U.S.G.S.
LIVERMORE, CA.
7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED 1999

N

QUADRANGLE LOCATION

0 1800 FT

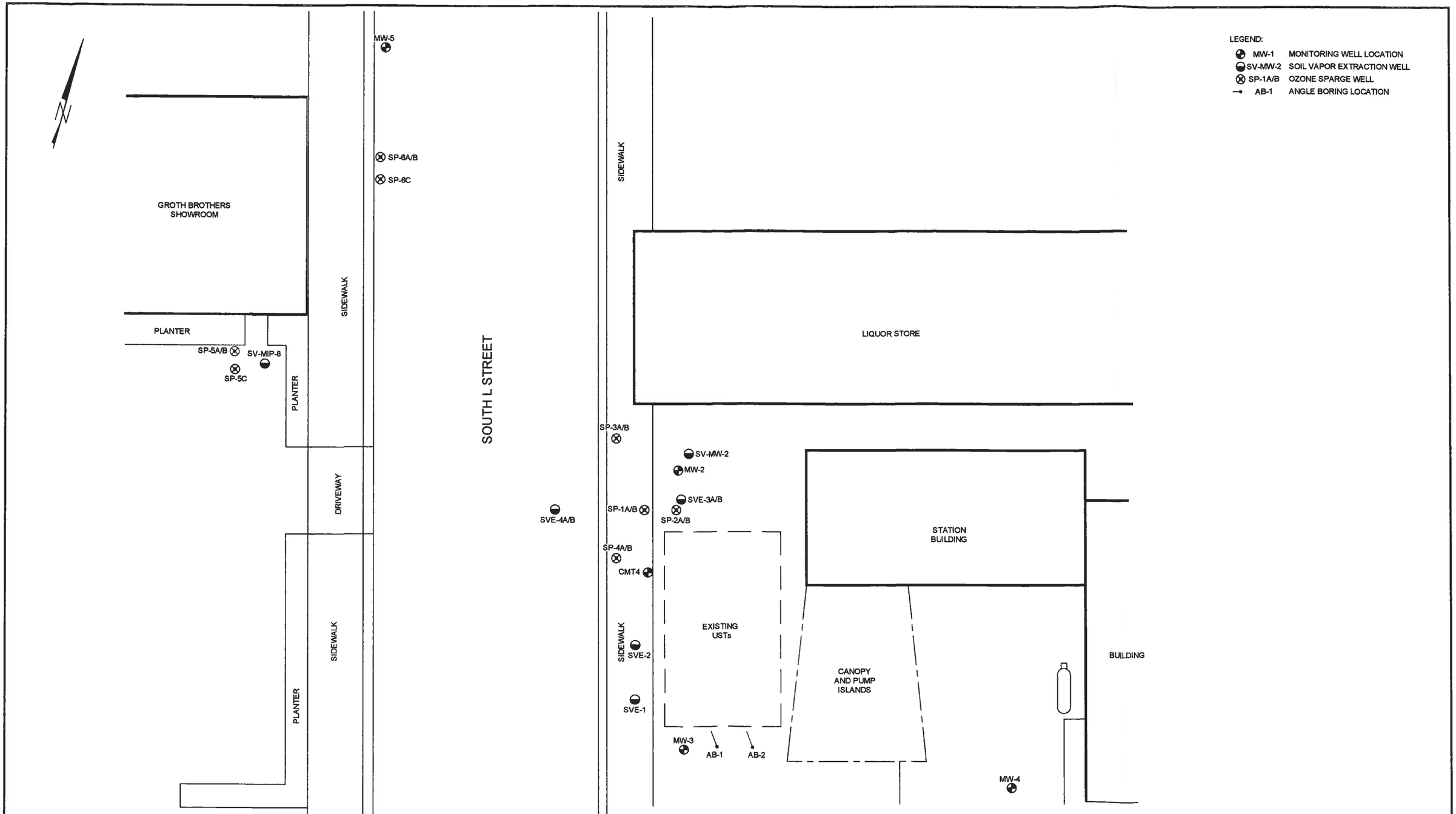
APPROXIMATE SCALE

STRATUS
ENVIRONMENTAL, INC.

B & C GAS MINI MART
2008 FIRST STREET
LIVERMORE, CALIFORNIA

SITE LOCATION MAP

FIGURE
1
PROJECT NO.
2146-2008-01



NOTE: LOCATIONS OF FEATURES DEPICTED ON THIS FIGURE ARE APPROXIMATE.

STRATUS ENVIRONMENTAL, INC.

0 20 FT

APPROXIMATE SCALE

B & C GAS MINI MART
2008 1st STREET
LIVERMORE, CALIFORNIA

SITE PLAN

FIGURE
2

PROJECT NO.
2146-2008-01

APPENDIX A

FIELD PRACTICES AND PROCEDURES

FIELD PRACTICES AND PROCEDURES

General procedures used by Stratus in site assessments for drilling exploratory borings, collecting samples, and installing monitoring wells are described herein. These general procedures are used to provide consistent and reproducible results; however, some procedure may be modified based on site conditions. A California state-registered geologist supervises the following procedures.

PRE-FIELD WORK ACTIVITIES

Health and Safety Plan

Field work performed by Stratus at the site is conducted according to guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document which describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP is at the site and available for reference by appropriate parties during work at the site.

Locating Underground Utilities

Prior to commencement of any work that is to be below surface grade, the location of the excavation, boring, etc., is marked with white paint as required by law. An underground locating service such as Underground Service Alert (USA) is contacted. The locating company contacts the owners of the various utilities in the vicinity of the site to mark the locations of their underground utilities. Any invasive work is preceded by hand augering to a minimum depth of five feet below surface grade to avoid contact with underground utilities.

FIELD METHODS AND PROCEDURES

Exploratory Soil Borings

Soil borings will be drilled using a truck-mounted, hollow stem auger drill rig. Soil samples for logging will be obtained from auger-return materials and by advancing a modified California split-spoon sampler equipped with brass or stainless steel liners into undisturbed soil beyond the tip of the auger. Soils will be logged by a geologist according to the Unified Soil Classification System and standard geological techniques. Drill cuttings well be screened using a portable photoionization detector (PID) or a flame ionization detector (FID). Exploratory soil borings not used for monitoring well installation will be backfilled to the surface with a bentonite-cement slurry pumped into the boring through a tremie pipe.

Soil sampling equipment will be cleaned with a detergent water solution, rinsed with clean water, and equipped with clean liners between sampling intervals. Augers and

samplers will be steam cleaned between each boring to reduce the possibility of cross contamination. Steam cleaning effluent will be contained in 55-gallon drums and temporarily stored on site. The disposal of the effluent will be the responsibility of the client.

Drill cuttings generated during the drilling procedure will be stockpiled on site. Stockpiled drill cuttings will be placed on and covered with plastic sheeting. The stockpiled soil is typically characterized by collecting and analyzing composite samples from the stockpile. Stratus Environmental will recommend an appropriate method for disposition of the cuttings based on the analytical results. The client will be responsible for disposal of the drill cuttings.

Soil Sample Collection

During drilling, soil samples will be collected in cleaned brass, two by six inch tubes. The tubes will be set in an 18-inch-long split-barrel sampler. The sampler will be conveyed to bottom of the borehole attached to a wire-line hammer device on the drill rig. When possible, the split-barrel sampler will be driven its entire length, either hydraulically or by repeated pounding a 140-pound hammer using a 30-inch drop. The number of drops (blows) used to drive the sampler will be recorded on the boring log. The sampler will be extracted from the borehole, and the tubes containing the soil samples will be removed. Upon removal, the ends of the lowermost tube will be sealed with Teflon sheets and plastic caps. Soil samples for chemical analysis will be labeled, placed on ice, and delivered to a state-certified analytical laboratory, along with the appropriate chain-of-custody documentation.

Soil Classification

As the samples are obtained in the field, they will be classified by the field geologist in accordance with the Unified Soil Classification System. Representative portions of the samples will be retained for further examination and for verification of the field classification. Logs of the borings indicating the depth and identification of the various strata and pertinent information regarding the method of maintaining and advancing the borehole will be prepared.

Soil Sample Screening

Soil samples selected for chemical analysis will be determined from a head-space analysis using a PID or an FID. The soil will be placed in a Ziploc® bag, sealed, and allowed to reach ambient temperature, at which time the PID probe will be inserted into the Ziploc® bag. The total volatile hydrocarbons present are detected by the PID and reported in parts per million by volume (ppmv). The PID will be calibrated to an isobutylene standard.

Generally two soil samples from each soil boring will be submitted for chemical analysis unless otherwise specified in the scope of work. Soil samples selected for analysis typically represent the highest PID reading recorded for each soil boring and the sample just above first-encountered groundwater.

Stockpiled Drill Cuttings and Soil Sampling

Soil generated during drilling operations will be stockpiled on-site. The stockpile will be set on and covered by plastic sheeting in a manner to prevent rain water from coming in contact with the soil. Prior to collecting soil samples, Stratus personnel will calculate the approximate volume of soil in the stockpile. The stockpile will then divided into sections, if warranted, containing the predetermined volume sampling interval. Soil samples will be collected at 0.5 to 2 feet below the surface of the stockpile. Four soil samples will be collected from the stockpile and composited into one sample by the laboratory prior to analysis. The soil samples will be collected in cleaned brass, two by six inch tubes using a hand driven sampling device. To reduce the potential for cross-contamination between samples, the sampler will be cleaned between each sampling event. Upon recovery, the sample container will be sealed at each end with Teflon sheeting and plastic caps to minimize the potential of volatilization and cross-contamination prior to chemical analysis. The soil sample will be labeled, placed on ice, and delivered to a state-certified analytical laboratory, along with the appropriate chain-of-custody documentation.

Direct Push Technology, Soil Sampling

GeoProbe™ is a drilling method of advancing small diameter borings without generating soil cuttings. The GeoProbe™ system consists of a 2-inch diameter, 5-feet long, stainless steel soil sampling tool that is hydraulically advanced into subsurface soils by a small, truck-mounted rig. The sampling tool is designed similar to a California-modified split-spoon sampler, and lined with a 5-foot long, clear acrylic sample tube that enables continuous core sampling.

To collect soil samples, the sampler is advanced to the desired sampling depth. The mouth of the sampling tool is plugged to prevent soil from entering the sampler. Upon reaching the desired sampling depth, the plug at the mouth of the sample tool is disengaged and retracted, the sampler is advanced, and the sampler is filled with soil. The sample tool is then retrieved from the boring, and the acrylic sample tube removed. The sample tool is then cleaned, a new acrylic tube is placed inside and the sampling equipment is advanced back down the borehole to the next sample interval.

The Stratus geologist describes the entire interval of soil visible in the acrylic tube. The bottom-most 6-inch long section is cut off and retained for possible chemical analysis. The ends of the chemical sample are lined with Teflon™ sheets, capped, labeled, and placed in an ice-chilled cooler for transport to California Department of Health Services-certified analytical laboratory under chain-of-custody.

Direct Push Technology, Water Sampling

A well known example of direct push technology for water sampling is the Hydropunch®. For the purpose of this field method the term hydropunch will be used instead of direct push technology for water sampling.

The hydropunch is typically used with a drill rig. A boring is drilled with hollow stem-augers to just above the sampling zone. In some soil conditions the drill rig can push directly from the surface to the sampling interval. The hydropunch is conveyed to the bottom of the boring using drill rods. Once on bottom the hydropunch is driven a maximum of five feet. The tool is then opened by lifting up the drill rod no more than four feet. Once the tool is opened, water enters and a sample can be collected with a bailer or tubing utilizing a peristaltic pump. Soil particles larger than silt are prevented from entering the tool by a screen within the tool. The water sample is collected, labeled, and handled according to the Quality Assurance Plan.

Monitoring Well Installation

Monitoring wells will be completed by installing 2 to 6 inch-diameter Schedule 40 polyvinyl chloride (PVC) casing. The borehole diameter for a monitoring well will be a minimum of four inches larger than the outside diameter of the casing. The 2-inch-diameter flush-threaded casing is generally used for wells dedicated for groundwater monitoring purposes.

A monitoring well is typically cased with threaded, factory-perforated and blank Schedule 40 PVC. The perforated interval consists of slotted casing, generally with 0.01 or 0.02 inch-wide by 1.5-inch-long slots, with 42 slots per foot. The screened sections of casing are factory machine slotted and will be installed approximately 5 feet above and 10 feet below first-encountered water level. The screened interval will allow for seasonal fluctuation in water level and for monitoring floating product. A threaded or slip PVC cap is secured to the bottom of the casing. The slip cap can be secured with stainless steel screws or friction; no solvents or cements are used. Centering devices may be fastened to the casing to ensure even distribution of filter material and grout within the borehole annulus. The well casing is thoroughly washed and/or steam cleaned, or may be purchased as pre-cleaned, prior to completion.

A filter pack of graded sand will be placed in the annular space between the PVC casing and the borehole wall. Sand will be added to the borehole through the hollow stem of the augers to provide a uniform filter pack around the casing and to stabilize the borehole. The sand pack will be placed to a maximum of 2 feet above the screens, followed by a minimum 1-foot seal consisting of bentonite pellets.

Cement grout containing 5 percent bentonite or concrete will be placed above the bentonite seal to the ground surface. A concrete traffic-rated vault box will be installed over the monitoring well(s). A watertight locking cap will be installed over the top of the

well casing. Reference elevations for each monitoring well will be surveyed when more than two wells will be located on site. Monitoring well elevations will be surveyed by a California licensed surveyor to the nearest 0.01-foot relative to mean sea level (MSL). Horizontal coordinates of the wells will be measured at the same time.

Exploratory boring logs and well construction details will be prepared for the final written report.

APPENDIX B

DRILLING PERMIT AND SOIL BORING LOGS

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 2608 First St., Livermore

Coordinates Source Google Earth ft. Accuracy/? ft.
LAT: 37° 40' 52.13" N ft. LONG: 121° 46' 16.50" W ft.
APN 097-0001-024-01

CLIENT
Name Balaji Angle
Address 35584 Cameron Lane Phone 510-527-4922
City Fremont Zip 94536

APPLICANT
Name Stratus Environmental, Inc.
Email Shitting@stratusinc.net Fax 530-676-6005
Address 3330 Cameron Park Dr. #550 Phone 530-676-2062
City Cameron Park Zip 95682

TYPE OF PROJECT:
Well Construction
Well Destruction
Cathodic Protection
Geotechnical Investigation
Contamination Investigation X
Other Soil borings (angled 15°)

PROPOSED WELL USE:
Domestic
Municipal
Industrial
Dewatering
Irrigation
Remediation
Groundwater Monitoring
Other

DRILLING METHOD:
Mud Rotary Air Rotary Hollow Stem Auger
Cable Tool Direct Push ✓ Other

DRILLING COMPANY Penncore Drilling

DRILLER'S LICENSE NO. 906899 C57

WELL SPECIFICATIONS:
Drill Hole Diameter 2 in. Maximum
Casing Diameter in. Depth ft.
Surface Seal Depth ft. Number

SOIL BORINGS: 2 (AB-1 & AD-2)
Number of Borings
Hole Diameter 2 in. Maximum Depth 44 ft.

ESTIMATED STARTING DATE 8-15-13
ESTIMATED COMPLETION DATE 8-15-13

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Scott Shitting Date 7-31-2013

ATTACH SITE PLAN OR SKETCH

FOR OFFICE USE

PERMIT NUMBER 2013098
WELL NUMBER
APN 097-0001-024-01

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.
3. Permit is void if project not begun within 90 days of approval date.
4. **Notify Zone 7 at least 24 hours before the start of work.**

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

(G.) SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

Approved Wyman Hong Date 8/12/13
Wyman Hong

Revised: January 4, 2010

SOIL BORING/WELL CONSTRUCTION LOG

Boring No. AB-1 **Sheet: 1 of 3**

Client	B&C Gas	Date	August 15, 2013
Address	2008 1st Street	Drilling Co.	Penecore Drilling rig type: GeoProbe 7822DT
	Livermore, CA	Driller	Martin
Project No.	2146-2008-01	Method	Direct Push Hole Diameter: 2.5 inches
Logged By:	Allan Dudding	Sampler:	5 foot acetate sample liners
		Depth to GW:	▽ first encountered: 37 feet bgs ▼ Static:

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Actual Depth	Boring Length	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
					0.97	1		Concrete pavement at surface. Boring hand cleared to 3 feet.	
					1.93	2			
					2.90	3			
					3.86	4	ML	Silt, some clay, ML, dark brown (10YR 3/3), moist, low- to non-plastic, 80% silt, 20% clay, trace sand.	
S	AB-1-5		0900		4.83	5			0
					5.80	6			
					6.76	7		As above, 60% silt, 10% clay, 30% gravel.	
					7.73	8			
					8.69	9			
S	AB-1-10		0906		9.66	10			0
					10.63	11			
					11.59	12			
					12.56	13			
					13.52	14	CL		
S	AB-1-15		0910		14.49	15		Silty Clay, CL, dark yellowish brown (10YR 4/4), moist, medium plasticity, 70% clay, 30% silt.	0
					15.45	16			
					16.42	17			
					17.39	18		As above, 10% gravel.	
					18.35	19			
S	AB-1-20		0915		19.32	20	GC	Clayey Gravel, GC, olive brown (2.5Y 4/3), moist, 50% fine gravel, 40% clay, 10% silt.	0

Recovery
Sample

Comments: Color descriptions from Munsell Color Chart. The boring was advanced at a 15 degree angle from vertical.

STRATUS ENVIRONMENTAL, INC.

SOIL BORING/WELL CONSTRUCTION LOG

Boring No. AB-1 **Sheet: 2 of 3**

Client	B&C Gas	Date	August 15, 2013
Address	2008 1st Street	Drilling Co.	Penecore Drilling rig type: GeoProbe 7822DT
	Livermore, CA	Driller	Martin
Project No.	2146-2008-01	Method	Direct Push Hole Diameter: 2.5 inches
Logged By:	Allan Dudding	Sampler:	5 foot acetate sample liners
		Depth to GW:	▽ first encountered: 37 feet bgs ▼ Static:

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Actual Depth	Boring Length	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
					20.28	21	GC	Clayey Gravel, GC, olive brown (2.5Y 4/3), moist, 50% fine gravel, 40% clay, 10% silt.	
					21.25	22			
					22.22	23			
					23.18	24			
S	AB-1-25		0921		24.15	25	CL	Silty Clay, CL, olive, (5Y 4/3), moist, low plasticity, 60% clay, 40% silt.	303
					25.11	26			
					26.08	27			
					27.05	28			
					28.01	29		Clay with silt, CL, olive (5Y 4/3), moist, medium plasticity, 80% clay, 20% silt.	
S	AB-1-30		0925		28.98	30			496
					29.94	31			
					30.91	32			
					31.88	33	ML	Clayey Silt with gravel, ML, greenish gray (GLEY1 5/5GY), moist, low plasticity, 50% silt, 30% clay, 20% fine gravel.	
					32.84	34			
S	AB-1-35		0932		33.81	35	CL	Clay with silt, CL, greenish gray (GLEY1 5/5GY), moist, medium plasticity, 80% clay, 20% silt.	1,000+
					34.77	36			
					35.74	37			
					36.71	38	ML	Clayey Silt with gravel, ML, greenish gray (GLEY1 5/5GY), wet, low plasticity, 50% silt, 30% clay, 20% fine gravel.	
					37.67	39			
S	AB-1-40		0944		38.64	40	SM	Silty Sand with gravel, SM, greenish gray (GLEY 1 5/5GY), wet, 60% fine to coarse sand, 20% silt, 20% fine to coarse gravel, trace clay.	537

Recovery
Sample

Comments: Color descriptions from Munsell Color Chart. The boring was advanced at a 15 degree angle from vertical.

STRATUS ENVIRONMENTAL, INC.

SOIL BORING/WELL CONSTRUCTION LOG

Boring No. AB-1 **Sheet: 3 of 3**

Client	B&C Gas	Date	August 15, 2013
Address	2008 1st Street	Drilling Co.	Penecore Drilling rig type: GeoProbe 7822DT
	Livermore, CA	Driller	Martin
Project No.	2146-2008-01	Method	Direct Push Hole Diameter: 2.5 inches
Logged By:	Allan Dudding	Sampler:	5 foot acetate sample liners
		Depth to GW:	▽ first encountered: 37 feet bgs ▼ Static:

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Actual Depth	Boring Length	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
					39.60	41	SM	Silty Sand with gravel, SM, greenish gray (GLEY 1 5/5GY), wet, 60% fine to coarse sand, 20% silt, 20% fine to coarse gravel, trace clay.	
					40.57	42			
					41.53	43			
S	AB-1-44		0948		42.50	44			438
					43.47	45			
					44.43	46			
					45.40	47			
					46.36	48			
					47.33	49			
					48.30	50			
					49.26	51			
					50.23	52			
					51.19	53			
					52.16	54			
					53.13	55			
					54.09	56			
					55.06	57			
					56.02	58			
					56.99	59			
					57.96	60			

Recovery
Sample

Comments: Color descriptions from Munsell Color Chart. The boring was advanced at a 15 degree angle from vertical.

STRATUS ENVIRONMENTAL, INC.

SOIL BORING/WELL CONSTRUCTION LOG

Boring No. AB-2 **Sheet: 1 of 3**

Client	B&C Gas	Date	August 15, 2013
Address	2008 1st Street	Drilling Co.	Penecore Drilling rig type: GeoProbe 7822DT
	Livermore, CA	Driller	Martin
Project No.	2146-2008-01	Method	Direct Push Hole Diameter: 2.5 inches
Logged By:	Allan Dudding	Sampler:	5 foot acetate sample liners
		Depth to GW:	▽ first encountered: 37 feet bgs ▼ Static:

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Actual Depth	Boring Length	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
					0.97	1		Concrete pavement at surface. Boring hand cleared to 3 feet.	
					1.93	2			
					2.90	3			
					3.86	4		Non-native mix of pea gravel, silt, sand, brick, and concrete materials.	
S	AB-2-5		1030		4.83	5			0
					5.80	6			
					6.76	7	ML	Silt with gravel, ML, dark yellowish brown (10YR 4/4), moist, low plasticity, 80% silt, 20% fine to coarse gravel, some pieces of terra cotta or brick found in sediment.	
					7.73	8			
					8.69	9			
S	AB-2-10		1034		9.66	10			0
					10.63	11			
					11.59	12	GP	Poorly-graded gravel, GP, light brownish gray (10YR 6/2), dry, 95% fine angular gravel, 5% silt and fines.	
					12.56	13			
					13.52	14			
S	AB-2-15		1038		14.49	15			0
					15.45	16	ML	Clayey Silt, ML, dark yellowish brown (10YR 4/4), moist to dry, low plasticity, 70% silt, 30% clay.	
					16.42	17			
					17.39	18			
					18.35	19			
S	AB-2-20		1043		19.32	20		As above, with gravel. 50% silt, 20% clay, 30% fine to coarse gravel.	210

Recovery
Sample

Comments: Color descriptions from Munsell Color Chart. The boring was advanced at a 15 degree angle from vertical.

STRATUS ENVIRONMENTAL, INC

SOIL BORING/WELL CONSTRUCTION LOG | Boring No. AB-2 | Sheet: 2 of 3

Client	B&C Gas	Date	August 15, 2013
Address	2008 1st Street	Drilling Co.	Penecore Drilling rig type: GeoProbe 7822DT
	Livermore, CA	Driller	Martin
Project No.	2146-2008-01	Method	Direct Push Hole Diameter: 2.5 inches
Logged By:	Allan Dudding	Sampler:	5 foot acetate sample liners
		Depth to GW:	▽ first encountered: 37 feet bgs ▼ Static:

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Actual Depth	Boring Length	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
					20.28	21	ML	Clayey Silt with gravel, ML, dark yellowish brown (10YR 4/4), moist, low plasticity, 50% silt, 20% clay, 30% fine to coarse gravel.	
					21.25	22			
					22.22	23			
					23.18	24			
S	AB-2-25		1048		24.15	25			408
					25.11	26			
					26.08	27			
					27.05	28			
					28.01	29	CL	Silty Clay, CL, olive gray (5Y 4/2), moist, medium plasticity, 70% clay, 30% silt.	
S	AB-2-30		1051		28.98	30			791
					29.94	31		Color changes to greenish gray (GLEY1 5/5GY).	
					30.91	32			
					31.88	33	ML	Clayey Silt, ML, greenish gray (GLEY1 5/5GY), moist, low plasticity, 70% silt, 30% clay, trace fine sand.	
					32.84	34	CL	Silty Clay, CL, greenish gray (GLEY1 5/5GY), moist, medium plasticity, 70% clay, 30% silt.	
S	AB-2-35		1055		33.81	35			1,000+
					34.77	36	▽		
					35.74	37	ML	Clayey Silt, ML, greenish gray (GLEY1 5/5GY), wet, low plasticity, 70% silt, 30% clay, trace fine sand.	
					36.71	38			
					37.67	39			
S	AB-2-40		1103		38.64	40			941

Recovery
Sample

Comments: Color descriptions from Munsell Color Chart. The boring was advanced at a 15 degree angle from vertical.

STRATUS ENVIRONMENTAL, INC.

SOIL BORING/WELL CONSTRUCTION LOG

Boring No. AB-2 **Sheet: 3 of 3**

Client	B&C Gas	Date	August 15, 2013
Address	2008 1st Street	Drilling Co.	Penecore Drilling rig type: GeoProbe 7822DT
	Livermore, CA	Driller	Martin
Project No.	2146-2008-01	Method	Direct Push Hole Diameter: 2.5 inches
Logged By:	Allan Dudding	Sampler:	5 foot acetate sample liners
		Depth to GW:	▽ first encountered: 37 feet bgs ▼ Static:

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Actual Depth	Boring Length	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
					39.60	41	SM-SC	Silty Clayey Sand, SM-SC, greenish gray (GLEY1 5/5GY), wet, 70% fine to coarse sand, 20% fines, 10% fine to coarse gravel.	
					40.57	42			
					41.53	43			
S	AB-2-44		1108		42.50	44			217
					43.47	45			
					44.43	46			
					45.40	47			
					46.36	48			
					47.33	49			
					48.30	50			
					49.26	51			
					50.23	52			
					51.19	53			
					52.16	54			
					53.13	55			
					54.09	56			
					55.06	57			
					56.02	58			
					56.99	59			
					57.96	60			

Recovery
Sample

Comments: Color descriptions from Munsell Color Chart. The boring was advanced at a 15 degree angle from vertical.

STRATUS ENVIRONMENTAL, INC.

APPENDIX C

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861
Job: B&C Gas

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005

Alpha Analytical Number: STR13081641-01A
Client I.D. Number: AB-1-5

Sampled: 08/15/13 09:00
Received: 08/16/13
Extracted: 08/15/13 12:42
Analyzed: 08/22/13

Semivolatile Organics by GC/MS
EPA Method SW8270C

	Compound	Concentration	Reporting Limit		Compound	Concentration	Reporting Limit	
1	Phenol	ND	660	µg/Kg	36 Hexachlorobenzene	ND	660	µg/Kg
2	2-Chlorophenol	ND	660	µg/Kg	37 Pentachlorophenol	ND	3,300	µg/Kg
3	Bis(2-chloroethyl)ether	ND	660	µg/Kg	38 Phenanthrene	ND	660	µg/Kg
4	1,3-Dichlorobenzene	ND	1,300	µg/Kg	39 Anthracene	ND	660	µg/Kg
5	1,4-Dichlorobenzene	ND	1,300	µg/Kg	40 Di-n-butyl phthalate	ND	3,300	µg/Kg
6	1,2-Dichlorobenzene	ND	1,300	µg/Kg	41 Fluoranthene	ND	660	µg/Kg
7	Bis(2-chloroisopropyl)ether	ND	660	µg/Kg	42 Pyrene	ND	660	µg/Kg
8	N-Nitrosodi-n-propylamine	ND	660	µg/Kg	43 Butyl benzyl phthalate	ND	1,300	µg/Kg
9	Hexachloroethane	ND	1,300	µg/Kg	44 Benzo(a)anthracene	ND	660	µg/Kg
10	Nitrobenzene	ND	660	µg/Kg	45 3,3'-Dichlorobenzidine	ND	1,300	µg/Kg
11	Isophorone	ND	660	µg/Kg	46 Chrysene	ND	660	µg/Kg
12	2-Nitrophenol	ND	660	µg/Kg	47 Bis(2-ethylhexyl)phthalate	ND	3,300	µg/Kg
13	2,4-Dimethylphenol	ND	660	µg/Kg	48 Di-n-octyl phthalate	ND	3,300	µg/Kg
14	Bis(2-chloroethoxy)methane	ND	660	µg/Kg	49 Benzo(b)fluoranthene	ND	660	µg/Kg
15	2,4-Dichlorophenol	ND	660	µg/Kg	50 Benzo(k)fluoranthene	ND	660	µg/Kg
16	1,2,4-Trichlorobenzene	ND	660	µg/Kg	51 Benzo(a)pyrene	ND	660	µg/Kg
17	Naphthalene	ND	660	µg/Kg	52 Indeno(1,2,3-cd)pyrene	ND	660	µg/Kg
18	Hexachlorobutadiene	ND	1,300	µg/Kg	53 Dibenz(a,h)anthracene	ND	660	µg/Kg
19	4-Chloro-3-methylphenol	ND	1,300	µg/Kg	54 Benzo(g,h,i)perylene	ND	660	µg/Kg
20	Hexachlorocyclopentadiene	ND	6,600	µg/Kg				
21	2,4,6-Trichlorophenol	ND	660	µg/Kg				
22	2-Chloronaphthalene	ND	660	µg/Kg				
23	Dimethyl phthalate	ND	660	µg/Kg				
24	Acenaphthylene	ND	660	µg/Kg				
25	2,6-Dinitrotoluene	ND	660	µg/Kg				
26	Acenaphthene	ND	660	µg/Kg				
27	2,4-Dinitrophenol	ND	6,600	µg/Kg				
28	4-Nitrophenol	ND	3,300	µg/Kg				
29	2,4-Dinitrotoluene	ND	660	µg/Kg				
30	Diethyl phthalate	ND	660	µg/Kg				
31	Fluorene	ND	660	µg/Kg				
32	4-Chlorophenyl phenyl ether	ND	660	µg/Kg				
33	4,6-Dinitro-2-methylphenol	ND	6,600	µg/Kg				
34	N-Nitrosodiphenylamine	ND	660	µg/Kg				
35	4-Bromophenyl phenyl ether	ND	660	µg/Kg				

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com
Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.
Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered an any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

8/23/13
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861
Job: B&C Gas

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005

Alpha Analytical Number: STR13081641-02A
Client I.D. Number: AB-1-10

Sampled: 08/15/13 09:06
Received: 08/16/13
Extracted: 08/15/13 12:42
Analyzed: 08/22/13

Semivolatile Organics by GC/MS
EPA Method SW8270C

	Compound	Concentration	Reporting Limit		Compound	Concentration	Reporting Limit	
1	Phenol	ND	660	µg/Kg	36 Hexachlorobenzene	ND	660	µg/Kg
2	2-Chlorophenol	ND	660	µg/Kg	37 Pentachlorophenol	ND	3,300	µg/Kg
3	Bis(2-chloroethyl)ether	ND	660	µg/Kg	38 Phenanthrene	ND	660	µg/Kg
4	1,3-Dichlorobenzene	ND	1,300	µg/Kg	39 Anthracene	ND	660	µg/Kg
5	1,4-Dichlorobenzene	ND	1,300	µg/Kg	40 Di-n-butyl phthalate	ND	3,300	µg/Kg
6	1,2-Dichlorobenzene	ND	1,300	µg/Kg	41 Fluoranthene	ND	660	µg/Kg
7	Bis(2-chloroisopropyl)ether	ND	660	µg/Kg	42 Pyrene	ND	660	µg/Kg
8	N-Nitrosodi-n-propylamine	ND	660	µg/Kg	43 Butyl benzyl phthalate	ND	1,300	µg/Kg
9	Hexachloroethane	ND	1,300	µg/Kg	44 Benzo(a)anthracene	ND	660	µg/Kg
10	Nitrobenzene	ND	660	µg/Kg	45 3,3'-Dichlorobenzidine	ND	1,300	µg/Kg
11	Isophorone	ND	660	µg/Kg	46 Chrysene	ND	660	µg/Kg
12	2-Nitrophenol	ND	660	µg/Kg	47 Bis(2-ethylhexyl)phthalate	ND	3,300	µg/Kg
13	2,4-Dimethylphenol	ND	660	µg/Kg	48 Di-n-octyl phthalate	ND	3,300	µg/Kg
14	Bis(2-chloroethoxy)methane	ND	660	µg/Kg	49 Benzo(b)fluoranthene	ND	660	µg/Kg
15	2,4-Dichlorophenol	ND	660	µg/Kg	50 Benzo(k)fluoranthene	ND	660	µg/Kg
16	1,2,4-Trichlorobenzene	ND	660	µg/Kg	51 Benzo(a)pyrene	ND	660	µg/Kg
17	Naphthalene	ND	660	µg/Kg	52 Indeno(1,2,3-cd)pyrene	ND	660	µg/Kg
18	Hexachlorobutadiene	ND	1,300	µg/Kg	53 Dibenz(a,h)anthracene	ND	660	µg/Kg
19	4-Chloro-3-methylphenol	ND	1,300	µg/Kg	54 Benzo(g,h,i)perylene	ND	660	µg/Kg
20	Hexachlorocyclopentadiene	ND	6,600	µg/Kg				
21	2,4,6-Trichlorophenol	ND	660	µg/Kg				
22	2-Chloronaphthalene	ND	660	µg/Kg				
23	Dimethyl phthalate	ND	660	µg/Kg				
24	Acenaphthylene	ND	660	µg/Kg				
25	2,6-Dinitrotoluene	ND	660	µg/Kg				
26	Acenaphthene	ND	660	µg/Kg				
27	2,4-Dinitrophenol	ND	6,600	µg/Kg				
28	4-Nitrophenol	ND	3,300	µg/Kg				
29	2,4-Dinitrotoluene	ND	660	µg/Kg				
30	Diethyl phthalate	ND	660	µg/Kg				
31	Fluorene	ND	660	µg/Kg				
32	4-Chlorophenyl phenyl ether	ND	660	µg/Kg				
33	4,6-Dinitro-2-methylphenol	ND	6,600	µg/Kg				
34	N-Nitrosodiphenylamine	ND	660	µg/Kg				
35	4-Bromophenyl phenyl ether	ND	660	µg/Kg				

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered an any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

8/23/13
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861
Job: B&C Gas

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005

Alpha Analytical Number: STR13081641-08A
Client I.D. Number: AB-2-5

Sampled: 08/15/13 10:30
Received: 08/16/13
Extracted: 08/15/13 12:42
Analyzed: 08/22/13

Semivolatile Organics by GC/MS
EPA Method SW8270C

	Compound	Concentration	Reporting Limit		Compound	Concentration	Reporting Limit	
1	Phenol	ND	660	µg/Kg	36 Hexachlorobenzene	ND	660	µg/Kg
2	2-Chlorophenol	ND	660	µg/Kg	37 Pentachlorophenol	ND	3,300	µg/Kg
3	Bis(2-chloroethyl)ether	ND	660	µg/Kg	38 Phenanthrene	ND	660	µg/Kg
4	1,3-Dichlorobenzene	ND	1,300	µg/Kg	39 Anthracene	ND	660	µg/Kg
5	1,4-Dichlorobenzene	ND	1,300	µg/Kg	40 Di-n-butyl phthalate	ND	3,300	µg/Kg
6	1,2-Dichlorobenzene	ND	1,300	µg/Kg	41 Fluoranthene	ND	660	µg/Kg
7	Bis(2-chloroisopropyl)ether	ND	660	µg/Kg	42 Pyrene	ND	660	µg/Kg
8	N-Nitrosodi-n-propylamine	ND	660	µg/Kg	43 Butyl benzyl phthalate	ND	1,300	µg/Kg
9	Hexachloroethane	ND	1,300	µg/Kg	44 Benzo(a)anthracene	ND	660	µg/Kg
10	Nitrobenzene	ND	660	µg/Kg	45 3,3'-Dichlorobenzidine	ND	1,300	µg/Kg
11	Isophorone	ND	660	µg/Kg	46 Chrysene	ND	660	µg/Kg
12	2-Nitrophenol	ND	660	µg/Kg	47 Bis(2-ethylhexyl)phthalate	ND	3,300	µg/Kg
13	2,4-Dimethylphenol	ND	660	µg/Kg	48 Di-n-octyl phthalate	ND	3,300	µg/Kg
14	Bis(2-chloroethoxy)methane	ND	660	µg/Kg	49 Benzo(b)fluoranthene	ND	660	µg/Kg
15	2,4-Dichlorophenol	ND	660	µg/Kg	50 Benzo(k)fluoranthene	ND	660	µg/Kg
16	1,2,4-Trichlorobenzene	ND	660	µg/Kg	51 Benzo(a)pyrene	ND	660	µg/Kg
17	Naphthalene	ND	660	µg/Kg	52 Indeno(1,2,3-cd)pyrene	ND	660	µg/Kg
18	Hexachlorobutadiene	ND	1,300	µg/Kg	53 Dibenz(a,h)anthracene	ND	660	µg/Kg
19	4-Chloro-3-methylphenol	ND	1,300	µg/Kg	54 Benzo(g,h,i)perylene	ND	660	µg/Kg
20	Hexachlorocyclopentadiene	ND	6,600	µg/Kg				
21	2,4,6-Trichlorophenol	ND	660	µg/Kg				
22	2-Chloronaphthalene	ND	660	µg/Kg				
23	Dimethyl phthalate	ND	660	µg/Kg				
24	Acenaphthylene	ND	660	µg/Kg				
25	2,6-Dinitrotoluene	ND	660	µg/Kg				
26	Acenaphthene	ND	660	µg/Kg				
27	2,4-Dinitrophenol	ND	6,600	µg/Kg				
28	4-Nitrophenol	ND	3,300	µg/Kg				
29	2,4-Dinitrotoluene	ND	660	µg/Kg				
30	Diethyl phthalate	ND	660	µg/Kg				
31	Fluorene	ND	660	µg/Kg				
32	4-Chlorophenyl phenyl ether	ND	660	µg/Kg				
33	4,6-Dinitro-2-methylphenol	ND	6,600	µg/Kg				
34	N-Nitrosodiphenylamine	ND	660	µg/Kg				
35	4-Bromophenyl phenyl ether	ND	660	µg/Kg				

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com
Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.
Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered an.any way.

ACCREDITED ACLASS DoD ELAP

NELAP ACCREDITED TNI LABORATORY

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

8/23/13
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861
Job: B&C Gas

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005

Alpha Analytical Number: STR13081641-09A
Client I.D. Number: AB-2-10

Sampled: 08/15/13 10:34
Received: 08/16/13
Extracted: 08/15/13 12:42
Analyzed: 08/22/13

Semivolatile Organics by GC/MS
EPA Method SW8270C

	Compound	Concentration	Reporting Limit		Compound	Concentration	Reporting Limit	
1	Phenol	ND	660	µg/Kg	36 Hexachlorobenzene	ND	660	µg/Kg
2	2-Chlorophenol	ND	660	µg/Kg	37 Pentachlorophenol	ND	3,300	µg/Kg
3	Bis(2-chloroethyl)ether	ND	660	µg/Kg	38 Phenanthrene	ND	660	µg/Kg
4	1,3-Dichlorobenzene	ND	1,300	µg/Kg	39 Anthracene	ND	660	µg/Kg
5	1,4-Dichlorobenzene	ND	1,300	µg/Kg	40 Di-n-butyl phthalate	ND	3,300	µg/Kg
6	1,2-Dichlorobenzene	ND	1,300	µg/Kg	41 Fluoranthene	ND	660	µg/Kg
7	Bis(2-chloroisopropyl)ether	ND	660	µg/Kg	42 Pyrene	ND	660	µg/Kg
8	N-Nitrosodi-n-propylamine	ND	660	µg/Kg	43 Butyl benzyl phthalate	ND	1,300	µg/Kg
9	Hexachloroethane	ND	1,300	µg/Kg	44 Benzo(a)anthracene	ND	660	µg/Kg
10	Nitrobenzene	ND	660	µg/Kg	45 3,3'-Dichlorobenzidine	ND	1,300	µg/Kg
11	Isophorone	ND	660	µg/Kg	46 Chrysene	ND	660	µg/Kg
12	2-Nitrophenol	ND	660	µg/Kg	47 Bis(2-ethylhexyl)phthalate	ND	3,300	µg/Kg
13	2,4-Dimethylphenol	ND	660	µg/Kg	48 Di-n-octyl phthalate	ND	3,300	µg/Kg
14	Bis(2-chloroethoxy)methane	ND	660	µg/Kg	49 Benzo(b)fluoranthene	ND	660	µg/Kg
15	2,4-Dichlorophenol	ND	660	µg/Kg	50 Benzo(k)fluoranthene	ND	660	µg/Kg
16	1,2,4-Trichlorobenzene	ND	660	µg/Kg	51 Benzo(a)pyrene	ND	660	µg/Kg
17	Naphthalene	ND	660	µg/Kg	52 Indeno(1,2,3-cd)pyrene	ND	660	µg/Kg
18	Hexachlorobutadiene	ND	1,300	µg/Kg	53 Dibenz(a,h)anthracene	ND	660	µg/Kg
19	4-Chloro-3-methylphenol	ND	1,300	µg/Kg	54 Benzo(g,h,i)perylene	ND	660	µg/Kg
20	Hexachlorocyclopentadiene	ND	6,600	µg/Kg				
21	2,4,6-Trichlorophenol	ND	660	µg/Kg				
22	2-Chloronaphthalene	ND	660	µg/Kg				
23	Dimethyl phthalate	ND	660	µg/Kg				
24	Acenaphthylene	ND	660	µg/Kg				
25	2,6-Dinitrotoluene	ND	660	µg/Kg				
26	Acenaphthene	ND	660	µg/Kg				
27	2,4-Dinitrophenol	ND	6,600	µg/Kg				
28	4-Nitrophenol	ND	3,300	µg/Kg				
29	2,4-Dinitrotoluene	ND	660	µg/Kg				
30	Diethyl phthalate	ND	660	µg/Kg				
31	Fluorene	ND	660	µg/Kg				
32	4-Chlorophenyl phenyl ether	ND	660	µg/Kg				
33	4,6-Dinitro-2-methylphenol	ND	6,600	µg/Kg				
34	N-Nitrosodiphenylamine	ND	660	µg/Kg				
35	4-Bromophenyl phenyl ether	ND	660	µg/Kg				

Sample results were calculated on a wet weight basis.
ND = Not Detected

ACLASS ACCREDITED DoD ELAP

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com
Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.
Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered an any way.

NELAP ACCREDITED LABORATORY

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

8/23/13
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received : 08/16/13

Job: B&C Gas

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B / SW8260B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

		Parameter	Concentration		Reporting Limit	Date Extracted	Date Analyzed
Client ID :	**AB-1-5**						
Lab ID :	STR13081641-01A	TPH-P (GRO)	ND		1,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 09:00	Tertiary Butyl Alcohol (TBA)	ND		500 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	ND		5.0 µg/Kg	08/16/13	08/22/13
		Benzene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Toluene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	ND		5.0 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	ND		5.0 µg/Kg	08/16/13	08/22/13
		o-Xylene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Naphthalene	ND		40 µg/Kg	08/16/13	08/22/13
Client ID :	**AB-1-10**						
Lab ID :	STR13081641-02A	TPH-P (GRO)	ND		1,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 09:06	Tertiary Butyl Alcohol (TBA)	ND		500 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	31		5.0 µg/Kg	08/16/13	08/22/13
		Benzene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Toluene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	ND		5.0 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	ND		5.0 µg/Kg	08/16/13	08/22/13
		o-Xylene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Naphthalene	ND		40 µg/Kg	08/16/13	08/22/13
Client ID :	**AB-1-25**						
Lab ID :	STR13081641-03A	TPH-P (GRO)	2,300,000		500,000 µg/Kg	08/16/13	08/23/13
Date Sampled	08/15/13 09:21	Tertiary Butyl Alcohol (TBA)	ND	V	250,000 µg/Kg	08/16/13	08/23/13
		Methyl tert-butyl ether (MTBE)	ND	V	2,500 µg/Kg	08/16/13	08/23/13
		Benzene	ND	V	2,500 µg/Kg	08/16/13	08/23/13
		Toluene	3,800		2,500 µg/Kg	08/16/13	08/23/13
		Ethylbenzene	31,000		2,500 µg/Kg	08/16/13	08/23/13
		m,p-Xylene	210,000		2,500 µg/Kg	08/16/13	08/23/13
		o-Xylene	66,000		2,500 µg/Kg	08/16/13	08/23/13
		Naphthalene	21,000		20,000 µg/Kg	08/16/13	08/23/13
Client ID :	**AB-1-30**						
Lab ID :	STR13081641-04A	TPH-P (GRO)	2,000,000		250,000 µg/Kg	08/16/13	08/23/13
Date Sampled	08/15/13 09:25	Tertiary Butyl Alcohol (TBA)	ND	V	130,000 µg/Kg	08/16/13	08/23/13
		Methyl tert-butyl ether (MTBE)	ND	V	1,300 µg/Kg	08/16/13	08/23/13
		Benzene	1,300		1,300 µg/Kg	08/16/13	08/23/13
		Toluene	71,000		1,300 µg/Kg	08/16/13	08/23/13
		Ethylbenzene	48,000		1,300 µg/Kg	08/16/13	08/23/13
		m,p-Xylene	210,000		1,300 µg/Kg	08/16/13	08/23/13
		o-Xylene	73,000		1,300 µg/Kg	08/16/13	08/23/13
		Naphthalene	13,000		10,000 µg/Kg	08/16/13	08/23/13

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID :	**AB-1-35**						
Lab ID :	STR13081641-05A	TPH-P (GRO)	1,400,000		100,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 09:32	Tertiary Butyl Alcohol (TBA)	ND	V	50,000 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	2,000		500 µg/Kg	08/16/13	08/22/13
		Benzene	12,000		500 µg/Kg	08/16/13	08/22/13
		Toluene	29,000		500 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	30,000		500 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	120,000		500 µg/Kg	08/16/13	08/22/13
		o-Xylene	44,000		500 µg/Kg	08/16/13	08/22/13
		Naphthalene	30,000		4,000 µg/Kg	08/16/13	08/22/13
Client ID :	**AB-1-40**						
Lab ID :	STR13081641-06A	TPH-P (GRO)	2,600,000		160,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 09:44	Tertiary Butyl Alcohol (TBA)	ND	V	80,000 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	1,400		800 µg/Kg	08/16/13	08/22/13
		Benzene	16,000		800 µg/Kg	08/16/13	08/22/13
		Toluene	3,200		800 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	53,000		800 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	210,000		800 µg/Kg	08/16/13	08/22/13
		o-Xylene	60,000		800 µg/Kg	08/16/13	08/22/13
		Naphthalene	35,000		6,400 µg/Kg	08/16/13	08/22/13
Client ID :	**AB-1-44**						
Lab ID :	STR13081641-07A	TPH-P (GRO)	8,300		1,000 µg/Kg	08/16/13	08/23/13
Date Sampled	08/15/13 09:48	Tertiary Butyl Alcohol (TBA)	ND		500 µg/Kg	08/16/13	08/23/13
		Methyl tert-butyl ether (MTBE)	5.4		5.0 µg/Kg	08/16/13	08/23/13
		Benzene	9.0		5.0 µg/Kg	08/16/13	08/23/13
		Toluene	ND		5.0 µg/Kg	08/16/13	08/23/13
		Ethylbenzene	56		5.0 µg/Kg	08/16/13	08/23/13
		m,p-Xylene	66		5.0 µg/Kg	08/16/13	08/23/13
		o-Xylene	21		5.0 µg/Kg	08/16/13	08/23/13
		Naphthalene	ND		40 µg/Kg	08/16/13	08/23/13
Client ID :	**AB-2-5**						
Lab ID :	STR13081641-08A	TPH-P (GRO)	ND		1,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 10:30	Tertiary Butyl Alcohol (TBA)	ND		500 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	ND		5.0 µg/Kg	08/16/13	08/22/13
		Benzene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Toluene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	ND		5.0 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	8.9		5.0 µg/Kg	08/16/13	08/22/13
		o-Xylene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Naphthalene	ND		40 µg/Kg	08/16/13	08/22/13
Client ID :	**AB-2-10**						
Lab ID :	STR13081641-09A	TPH-P (GRO)	ND		1,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 10:34	Tertiary Butyl Alcohol (TBA)	ND		500 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	ND		5.0 µg/Kg	08/16/13	08/22/13
		Benzene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Toluene	9.2		5.0 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	ND		5.0 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	7.6		5.0 µg/Kg	08/16/13	08/22/13
		o-Xylene	ND		5.0 µg/Kg	08/16/13	08/22/13
		Naphthalene	ND		40 µg/Kg	08/16/13	08/22/13

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID :	**AB-2-25**						
Lab ID :	STR13081641-10A	TPH-P (GRO)	1,200		1,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 10:48	Tertiary Butyl Alcohol (TBA)	ND		500 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	5.9		5.0 µg/Kg	08/16/13	08/22/13
		Benzene	9.2		5.0 µg/Kg	08/16/13	08/22/13
		Toluene	79		5.0 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	14		5.0 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	81		5.0 µg/Kg	08/16/13	08/22/13
		o-Xylene	21		5.0 µg/Kg	08/16/13	08/22/13
		Naphthalene	ND		40 µg/Kg	08/16/13	08/22/13
Client ID :	**AB-2-30**						
Lab ID :	STR13081641-11A	TPH-P (GRO)	270,000		20,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 10:51	Tertiary Butyl Alcohol (TBA)	ND	V	10,000 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	140		100 µg/Kg	08/16/13	08/22/13
		Benzene	130		100 µg/Kg	08/16/13	08/22/13
		Toluene	ND	V	100 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	4,000		100 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	20,000		100 µg/Kg	08/16/13	08/22/13
		o-Xylene	7,100		100 µg/Kg	08/16/13	08/22/13
		Naphthalene	5,700		800 µg/Kg	08/16/13	08/22/13
Client ID :	**AB-2-35**						
Lab ID :	STR13081641-12A	TPH-P (GRO)	560,000		40,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 10:55	Tertiary Butyl Alcohol (TBA)	ND	V	20,000 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	300		200 µg/Kg	08/16/13	08/22/13
		Benzene	1,200		200 µg/Kg	08/16/13	08/22/13
		Toluene	ND	V	200 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	13,000		200 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	51,000		200 µg/Kg	08/16/13	08/22/13
		o-Xylene	530		200 µg/Kg	08/16/13	08/22/13
		Naphthalene	7,800		1,600 µg/Kg	08/16/13	08/22/13
Client ID :	**AB-2-40**						
Lab ID :	STR13081641-13A	TPH-P (GRO)	200,000		20,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 11:03	Tertiary Butyl Alcohol (TBA)	ND	V	10,000 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	430		100 µg/Kg	08/16/13	08/22/13
		Benzene	1,600		100 µg/Kg	08/16/13	08/22/13
		Toluene	1,200		100 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	4,000		100 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	17,000		100 µg/Kg	08/16/13	08/22/13
		o-Xylene	6,400		100 µg/Kg	08/16/13	08/22/13
		Naphthalene	3,200		800 µg/Kg	08/16/13	08/22/13
Client ID :	**AB-2-44**						
Lab ID :	STR13081641-14A	TPH-P (GRO)	54,000		2,000 µg/Kg	08/16/13	08/22/13
Date Sampled	08/15/13 11:08	Tertiary Butyl Alcohol (TBA)	ND	V	1,000 µg/Kg	08/16/13	08/22/13
		Methyl tert-butyl ether (MTBE)	ND	V	10 µg/Kg	08/16/13	08/22/13
		Benzene	ND	V	10 µg/Kg	08/16/13	08/22/13
		Toluene	ND	V	10 µg/Kg	08/16/13	08/22/13
		Ethylbenzene	66		10 µg/Kg	08/16/13	08/22/13
		m,p-Xylene	160		10 µg/Kg	08/16/13	08/22/13
		o-Xylene	12		10 µg/Kg	08/16/13	08/22/13
		Naphthalene	360		80 µg/Kg	08/16/13	08/22/13

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Gasoline Range Organics (GRO) C4-C13

V = Reporting Limits were increased due to high concentrations of target analytes.

Sample results were calculated on a wet weight basis.

ND = Not Detected

Reported in micrograms per Kilogram, per client request.

ACLASS ACCREDITED DoD ELAP

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered an any way.

NELAP ACCREDITED TNI LABORATORY

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

8/23/13

Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 23-Aug-13

QC Summary Report

Work Order: 13081641

Method Blank Type: **MBLK** Test Code: **EPA Method SW8270C**

File ID: **13082207.D** Batch ID: **31481** Analysis Date: **08/22/2013 17:48**

Sample ID: **MBLK-31481** Units : **µg/Kg** Run ID: **MSD_16_130815A** Prep Date: **08/15/2013 12:42**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phenol	ND	660								
2-Chlorophenol	ND	660								
Bis(2-chloroethyl)ether	ND	660								
1,3-Dichlorobenzene	ND	1300								
1,4-Dichlorobenzene	ND	1300								
1,2-Dichlorobenzene	ND	1300								
Bis(2-chloroisopropyl)ether	ND	660								
N-Nitrosodi-n-propylamine	ND	660								
Hexachloroethane	ND	1300								
Nitrobenzene	ND	660								
Isophorone	ND	660								
2-Nitrophenol	ND	660								
2,4-Dimethylphenol	ND	660								
Bis(2-chloroethoxy)methane	ND	660								
2,4-Dichlorophenol	ND	660								
1,2,4-Trichlorobenzene	ND	660								
Naphthalene	ND	660								
4-Chloro-3-methylphenol	ND	1300								
Hexachlorobutadiene	ND	1300								
Hexachlorocyclopentadiene	ND	6600								
2,4,6-Trichlorophenol	ND	660								
2-Chloronaphthalene	ND	660								
Dimethyl phthalate	ND	660								
Acenaphthylene	ND	660								
2,6-Dinitrotoluene	ND	660								
Acenaphthene	ND	660								
2,4-Dinitrophenol	ND	6600								
4-Nitrophenol	ND	3300								
2,4-Dinitrotoluene	ND	660								
Diethyl phthalate	ND	660								
Fluorene	ND	660								
4-Chlorophenyl phenyl ether	ND	660								
4,6-Dinitro-2-methylphenol	ND	6600								
N-Nitrosodiphenylamine	ND	660								
4-Bromophenyl phenyl ether	ND	660								
Hexachlorobenzene	ND	660								
Pentachlorophenol	ND	3300								
Phenanthrene	ND	660								
Anthracene	ND	660								
Di-n-butyl phthalate	ND	3300								
Fluoranthene	ND	660								
Pyrene	ND	660								
Butyl benzyl phthalate	ND	1300								
Benzo(a)anthracene	ND	660								
3,3´-Dichlorobenzidine	ND	1300								
Chrysene	ND	660								
Bis(2-ethylhexyl)phthalate	ND	3300								
Di-n-octyl phthalate	ND	3300								
Benzo(b)fluoranthene	ND	660								
Benzo(k)fluoranthene	ND	660								
Benzo(a)pyrene	ND	660								
Indeno(1,2,3-cd)pyrene	ND	660								
Dibenz(a,h)anthracene	ND	660								
Benzo(g,h,i)perylene	ND	660								
Surr: 2-Fluorophenol	11400		12500		91	60	143			
Surr: Phenol-d5	10000		12500		80	56	148			
Surr: Nitrobenzene-d5	5060		6250		81	48	131			
Surr: 2-Fluorobiphenyl	5330		6250		85	53	130			
Surr: 2,4,6-Tribromophenol	7020		12500		56	44	154			
Surr: 4-Terphenyl-d14	2490		6250		40	42	145			S54

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 23-Aug-13

QC Summary Report

Work Order: 13081641

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8270C**
File ID: **13082208.D** Batch ID: **31481** Analysis Date: **08/22/2013 18:13**
Sample ID: **LCS-31481** Units : **µg/Kg** Run ID: **MSD_16_130815A** Prep Date: **08/15/2013 12:42**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phenol	5100	660	6250		82	45	130			
2-Chlorophenol	5030	660	6250		80	66	130			
1,4-Dichlorobenzene	4130	1300	6250		66	59	130			
N-Nitrosodi-n-propylamine	4380	660	6250		70	52	136			
1,2,4-Trichlorobenzene	3240	660	6250		52	46	130			
4-Chloro-3-methylphenol	4160	1300	6250		67	49	130			
Acenaphthene	4090	660	6250		65	57	130			
4-Nitrophenol	14400	3300	25000		57	13	142			
2,4-Dinitrotoluene	3370	660	6250		54	50	136			
Pentachlorophenol	15500	3300	25000		62	24	138			
Pyrene	3690	660	6250		59	38	141			
Surr: 2-Fluorophenol	11200		12500		90	60	143			
Surr: Phenol-d5	10500		12500		84	56	148			
Surr: Nitrobenzene-d5	3740		6250		60	48	131			
Surr: 2-Fluorobiphenyl	5210		6250		83	53	130			
Surr: 2,4,6-Tribromophenol	8190		12500		66	44	154			
Surr: 4-Terphenyl-d14	2840		6250		45	42	145			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8270C**
File ID: **13082214.D** Batch ID: **31481** Analysis Date: **08/22/2013 20:45**
Sample ID: **13081641-01AMS** Units : **µg/Kg** Run ID: **MSD_16_130815A** Prep Date: **08/15/2013 12:42**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phenol	4880	660	6250	0	78	28	132			
2-Chlorophenol	4750	660	6250	0	76	32	143			
1,4-Dichlorobenzene	4130	1300	6250	0	66	40	130			
N-Nitrosodi-n-propylamine	4300	660	6250	0	69	43	145			
1,2,4-Trichlorobenzene	3160	660	6250	0	51	28	136			
4-Chloro-3-methylphenol	4160	1300	6250	0	67	15	144			
Acenaphthene	4160	660	6250	0	67	27	140			
4-Nitrophenol	9020	3300	25000	0	36	5	142			
2,4-Dinitrotoluene	3120	660	6250	0	50	23	151			
Pentachlorophenol	5940	3300	25000	0	24	5	140			
Pyrene	3230	660	6250	0	52	29	145			
Surr: 2-Fluorophenol	10300		12500		82	60	143			
Surr: Phenol-d5	9830		12500		79	56	148			
Surr: Nitrobenzene-d5	3620		6250		58	48	131			
Surr: 2-Fluorobiphenyl	5130		6250		82	53	130			
Surr: 2,4,6-Tribromophenol	7250		12500		58	44	154			
Surr: 4-Terphenyl-d14	2500		6250		40	42	145			S54

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8270C**
File ID: **13082215.D** Batch ID: **31481** Analysis Date: **08/22/2013 21:10**
Sample ID: **13081641-01AMSD** Units : **µg/Kg** Run ID: **MSD_16_130815A** Prep Date: **08/15/2013 12:42**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phenol	4850	660	6250	0	78	28	132	4884	0.7(27)	
2-Chlorophenol	4600	660	6250	0	74	32	143	4752	3.2(26)	
1,4-Dichlorobenzene	4050	1300	6250	0	65	40	130	4135	2.2(20)	
N-Nitrosodi-n-propylamine	4370	660	6250	0	70	43	145	4296	1.8(21)	
1,2,4-Trichlorobenzene	3140	660	6250	0	50	28	136	3158	0.7(31)	
4-Chloro-3-methylphenol	4090	1300	6250	0	65	15	144	4161	1.7(40)	
Acenaphthene	4150	660	6250	0	66	27	140	4164	0.3(31)	
4-Nitrophenol	9800	3300	25000	0	39	5	142	9019	8.3(41)	
2,4-Dinitrotoluene	2940	660	6250	0	47	23	151	3121	5.9(39)	
Pentachlorophenol	6880	3300	25000	0	28	5	140	5944	14.6(30)	
Pyrene	3370	660	6250	0	54	29	145	3229	4.3(29)	
Surr: 2-Fluorophenol	9800		12500		78	60	143			
Surr: Phenol-d5	9490		12500		76	56	148			
Surr: Nitrobenzene-d5	3590		6250		57	48	131			
Surr: 2-Fluorobiphenyl	5140		6250		82	53	130			
Surr: 2,4,6-Tribromophenol	6860		12500		55	44	154			
Surr: 4-Terphenyl-d14	2510		6250		40	42	145			S54

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *23-Aug-13*

QC Summary Report

Work Order: 13081641

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

S54 = Surrogate recovery was below laboratory acceptance limits.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *23-Aug-13*

QC Summary Report

Work Order: 13081641

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8015B/C / SW8260B**

File ID: **13082206.D** Batch ID: **MS08S1488B** Analysis Date: **08/22/2013 12:09**

Sample ID: **MBLK MS08S1488B** Units : **µg/Kg** Run ID: **MSD_08_130822A** Prep Date: **08/22/2013 12:09**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	1000								
Surr: 1,2-Dichloroethane-d4	207		200		104	70	130			
Surr: Toluene-d8	194		200		97	70	130			
Surr: 4-Bromofluorobenzene	205		200		102	70	130			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8015B/C / SW8260B**

File ID: **13082211.D** Batch ID: **MS08S1488B** Analysis Date: **08/22/2013 14:37**

Sample ID: **GLCS MS08S1488B** Units : **µg/Kg** Run ID: **MSD_08_130822A** Prep Date: **08/22/2013 14:37**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	14200	2000	16000		88	63	149			
Surr: 1,2-Dichloroethane-d4	390		400		97	70	130			
Surr: Toluene-d8	337		400		84	70	130			
Surr: 4-Bromofluorobenzene	446		400		112	70	130			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8015B/C / SW8260B**

File ID: **13082212.D** Batch ID: **MS08S1488B** Analysis Date: **08/22/2013 15:01**

Sample ID: **13081641-01AGS** Units : **µg/Kg** Run ID: **MSD_08_130822A** Prep Date: **08/22/2013 15:01**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	14400	2000	16000	0	90	36	164			
Surr: 1,2-Dichloroethane-d4	400		400		100	70	130			
Surr: Toluene-d8	337		400		84	70	130			
Surr: 4-Bromofluorobenzene	445		400		111	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8015B/C / SW8260B**

File ID: **13082213.D** Batch ID: **MS08S1488B** Analysis Date: **08/22/2013 15:26**

Sample ID: **13081641-01AGSD** Units : **µg/Kg** Run ID: **MSD_08_130822A** Prep Date: **08/22/2013 15:26**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	14300	2000	16000	0	89	36	164	14360	0.5(40)	
Surr: 1,2-Dichloroethane-d4	392		400		98	70	130			
Surr: Toluene-d8	339		400		85	70	130			
Surr: 4-Bromofluorobenzene	448		400		112	70	130			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per Kilogram, per client request.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 23-Aug-13

QC Summary Report

Work Order: 13081641

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8260B**

File ID: **13082206.D** Batch ID: **MS08S1488A** Analysis Date: **08/22/2013 12:09**

Sample ID: **MBLK MS08S1488A** Units : **µg/Kg** Run ID: **MSD_08_130822A** Prep Date: **08/22/2013 12:09**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	500								
Methyl tert-butyl ether (MTBE)	ND	5								
Benzene	ND	5								
Toluene	ND	5								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
o-Xylene	ND	5								
Naphthalene	ND	40								
Surr: 1,2-Dichloroethane-d4	207		200		104	70	130			
Surr: Toluene-d8	194		200		97	70	130			
Surr: 4-Bromofluorobenzene	205		200		102	70	130			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8260B**

File ID: **13082208.D** Batch ID: **MS08S1488A** Analysis Date: **08/22/2013 12:59**

Sample ID: **LCS MS08S1488A** Units : **µg/Kg** Run ID: **MSD_08_130822A** Prep Date: **08/22/2013 12:59**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	363	10	400		91	65	145			
Benzene	394	10	400		98	70	137			
Toluene	416	10	400		104	70	139			
Ethylbenzene	387	10	400		97	70	137			
m,p-Xylene	395	10	400		99	70	145			
o-Xylene	387	10	400		97	70	145			
Surr: 1,2-Dichloroethane-d4	414		400		103	70	130			
Surr: Toluene-d8	350		400		88	70	130			
Surr: 4-Bromofluorobenzene	437		400		109	70	130			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8260B**

File ID: **13082209.D** Batch ID: **MS08S1488A** Analysis Date: **08/22/2013 13:47**

Sample ID: **13081641-01AMS** Units : **µg/Kg** Run ID: **MSD_08_130822A** Prep Date: **08/22/2013 13:47**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	324	10	400	0	81	45	155			
Benzene	346	10	400	0	87	52	151			
Toluene	365	10	400	0	91	47	154			
Ethylbenzene	343	10	400	0	86	52	154			
m,p-Xylene	349	10	400	0	87	51	162			
o-Xylene	344	10	400	0	86	52	162			
Surr: 1,2-Dichloroethane-d4	418		400		105	70	130			
Surr: Toluene-d8	348		400		87	70	130			
Surr: 4-Bromofluorobenzene	442		400		110	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8260B**

File ID: **13082210.D** Batch ID: **MS08S1488A** Analysis Date: **08/22/2013 14:11**

Sample ID: **13081641-01AMSD** Units : **µg/Kg** Run ID: **MSD_08_130822A** Prep Date: **08/22/2013 14:11**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	292	10	400	0	73	45	155	324.3	10.5(32)	
Benzene	323	10	400	0	81	52	151	346.2	6.8(30)	
Toluene	346	10	400	0	86	47	154	364.5	5.3(28)	
Ethylbenzene	323	10	400	0	81	52	154	342.5	5.9(37)	
m,p-Xylene	333	10	400	0	83	51	162	348.7	4.6(34)	
o-Xylene	321	10	400	0	80	52	162	343.6	6.7(40)	
Surr: 1,2-Dichloroethane-d4	403		400		101	70	130			
Surr: Toluene-d8	351		400		88	70	130			
Surr: 4-Bromofluorobenzene	451		400		113	70	130			

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *23-Aug-13*

QC Summary Report

Work Order: 13081641

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

CA

WorkOrder : STR13081641

Report Due By : 5:00 PM On : 23-Aug-13

Report Attention	Phone Number	EMail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

EDD Required : **Yes**

Sampled by : Client

PO :

Client's COC # : 13692, 13693 Job : B&C Gas

Cooler Temp	Samples Received	Date Printed
2 °C	16-Aug-13	**16-Aug-13**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests BNA_S	TPH/P_S	VOC_S						Sample Remarks
STR13081641-01A	AB-1-5	SO	08/15/13 09:00	1	0	5	8270	GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-02A	AB-1-10	SO	08/15/13 09:06	1	0	5	8270	GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-03A	AB-1-25	SO	08/15/13 09:21	1	0	5		GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-04A	AB-1-30	SO	08/15/13 09:25	1	0	5		GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-05A	AB-1-35	SO	08/15/13 09:32	1	0	5		GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-06A	AB-1-40	SO	08/15/13 09:44	1	0	5		GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-07A	AB-1-44	SO	08/15/13 09:48	1	0	5		GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-08A	AB-2-5	SO	08/15/13 10:30	1	0	5	8270	GAS-C	BTXE/MTBE /TBA/NAPH _C						

Comments: Security seals intact. Frozen ice. Samples AB-1-15, AB-1-20, AB-2-15, and AB-2-20 received with sample set & disposed by lab, per email from Allan 8/16/13. Samples -01A through -12A sampling dateadded to the COC and logged in per container labels. : 8270 full list confirmed by email from Allan 8/16/13.

	Signature	Print Name	Company	Date/Time
Logged in by:		Sarah Nen	Alpha Analytical, Inc.	8/16/13 1055

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR13081641

Report Due By : 5:00 PM On : 23-Aug-13

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

Report Attention	Phone Number	EMail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : Yes

Sampled by : Client

PO :

Client's COC # : 13692, 13693 Job : B&C Gas

Cooler Temp	Samples Received	Date Printed
2 °C	16-Aug-13	16-Aug-13

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests BNA_S	TPH/P_S	VOC_S						Sample Remarks
STR13081641-09A	AB-2-10	SO	08/15/13 10:34	1	0	5	8270	GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-10A	AB-2-25	SO	08/15/13 10:48	1	0	5		GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-11A	AB-2-30	SO	08/15/13 10:51	1	0	5		GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-12A	AB-2-35	SO	08/15/13 10:55	1	0	5		GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-13A	AB-2-40	SO	08/15/13 11:03	1	0	5		GAS-C	BTXE/MTBE /TBA/NAPH _C						
STR13081641-14A	AB-2-44	SO	08/15/13 11:08	1	0	5		GAS-C	BTXE/MTBE /TBA/NAPH _C						

Comments: Security seals intact. Frozen ice. Samples AB-1-15, AB-1-20, AB-2-15, and AB-2-20 received with sample set & disposed by lab, per email from Allan 8/16/13. Samples -01A through -12A sampling dateadded to the COC and logged in per container labels. : 8270 full list confirmed by email from Allan 8/16/13.

	Signature	Print Name	Company	Date/Time
Logged in by:		Sarah Deis	Alpha Analytical, Inc.	8/16/13 1055

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:

Company: Stratus Env.
Attn.
Address:
City, State, Zip:
Phone Number: Fax:

Alpha Analytical, Inc.

Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431
Phone: 775-355-1044
Fax: 775-355-0406

Satellite Service Centers:

Northern CA: 9891 Horn Road, Suite C, Rancho Cordova, CA 95827 Phone: 916-366-9089
Southern NV: 6255 McLeod Ave, Suite 24, Las Vegas, NV 89120 Phone: 702-281-4848
Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90746 Phone: 714-388-2901

13692

Page # 1 of 2

Consultant/ Client Info:

Company: BtC Gas
Address: 2008 12th St.
City, State, Zip: Livermore, CA

Job and Purchase Order Info:

Job #
Job Name: BtC Gas
P.O. #:

Report Attention/Project Manager:

Name: Scott Bittinger
Email Address:
Phone #:
Cell #:

QC Deliverable Info:

EDD Required? (Yes) / No
EDF Required? (Yes) / No
Global ID:
Data Validation Level: III or IV

Samples Collected from which State? (circle one) AZ CA NV WA ID OR DOD Site Other

Time Sampled (HHMM)	Date Sampled (MM/DD)	Matrix* (See Key Below)	Lab ID Number (For Lab Use Only)	Sample Description	TAT	Field Filtered?	# Containers** (See Key Below)	Analysis Requested: 8015 GRO	8260 BTEX MtBE, TBA	8260 Naphthalene	PAHs (8270)	Remarks
0900	8/15		[illegible]01A	AB-1-5	std		1P	X	X	X	X	
0906			02A	AB-1-10							X	
0921			03A	AB-1-25								
0925			04A	AB-1-30								
0932			05A	AB-1-35								
0944			06A	AB-1-40								
0948			07A	AB-1-44								
1030			08A	AB-2-5							X	
1034			09A	AB-2-10							X	
1048			10A	AB-2-25								
1051			11A	AB-2-30								
1055	↓		12A	AB-2-35								

ADDITIONAL INSTRUCTIONS:

I (field sampler) attest to the validity and authenticity of this sample(s). I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. NAC 445.0636 (c) (2).

Sampled By:

Relinquished by: (Signature/Affiliation):	Date:	Time:	Received by: (Signature/Affiliation):	Date:	Time:
[signature]	8/15/13	1405	[signature]	081513	1405
Relinquished by: (Signature/Affiliation):	Date:	Time:	Received by: (Signature/Affiliation):	Date:	Time:
			[signature] Alpha	8/16/13	0953
Relinquished by: (Signature/Affiliation):	Date:	Time:	Received by: (Signature/Affiliation):	Date:	Time:

* Key: AQ - Aqueous WA - Waste OT - Other **: L - Liter V - VOA S-Soil Jar O - Orbo T - Tedlar B - Brass P - Plastic OT - Other

NOTE: Samples are discarded 60 days after sample receipt unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Billing Information:

Company: Stratus Env.
Attn:
Address:
City, State, Zip:
Phone Number: Fax:

Alpha Analytical, Inc.
Environmental Lab

Alpha Analytical, Inc.
Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431
Phone: 775-355-1044
Fax: 775-355-0406

Satellite Service Centers:
Northern CA: 9891 Horn Road, Suite C, Rancho Cordova, CA 95827 Phone: 916-368-9089
Southern NV: 6255 McLeod Ave, Suite 24, Las Vegas, NV 89120 Phone: 702-281-4848
Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90746 Phone: 714-386-2901

13693

Page # 1 of 2

Consultant/ Client Info:
Company: BAC Gas
Address: 2008 1st St.
City, State, Zip: Livermore

Job and Purchase Order Info:
Job #
Job Name: BAC Gas
P.O. #:

Report Attention/Project Manager:
Name: Scott Bittinger
Email Address:
Phone #:
Cell #:

QC Deliverable Info:
EDD Required? (Yes) / No
EDF Required? (Yes) / No
Global ID:
Data Validation Level: III or IV

Samples Collected from which State? (circle one) AZ CA NV WA ID OR DOD Site Other

Time Sampled (HHMM)	Date Sampled (MM/DD)	Matrix* (See Key Below)	Lab ID Number (For Lab Use Only)	Sample Description	TAT	Field Filtered?	# Containers** (See Key Below)	Analysis Requested: GRO (8015)	BTEX, MTBE, TBA (8260)	Naph Hulene (8260)	PAHs (8270)	Remarks
1103	8/15	SO	[redacted]	AB-2-40	Std		VP	X	X	X		
1108	8/15	SO	[redacted]	AB-2-44	Std		VP	X	X	X		

ADDITIONAL INSTRUCTIONS:

I (field sampler) attest to the validity and authenticity of this sample(s). I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. NAC 445.0636 (c) (2).

Sampled By:

Relinquished by: (Signature/Affiliation)	Date:	Time:	Received by: (Signature/Affiliation)	Date:	Time:
[signature]	8/15/13	1405	E. Fritzano	081513	1405
Relinquished by: (Signature/Affiliation):	Date:	Time:	Received by: (Signature/Affiliation):	Date:	Time:
			Alpha	8/16/13	0953
Relinquished by: (Signature/Affiliation):	Date:	Time:	Received by: (Signature/Affiliation):	Date:	Time:

* Key: AQ - Aqueous WA - Waste OT - Other **: L - Liter V - VOA S-Soil Jar O - Orbo T - Tedlar B - Brass P - Plastic OT - Other

NOTE: Samples are discarded 60 days after sample receipt unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

APPENDIX D

GEOTRACKER DATA UPLOAD CONFIRMATION SHEETS

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

Submittal Type:	**GEO_BORE**
Facility Global ID:	**T0600100930**
Field Point:	**AB-1**
Facility Name:	**DESERT PETROLEUM #795**
File Name:	**SKMBT_C35313082209180.pdf**
Organization Name:	**Stratus Environmental, Inc.**
Username:	**STRATUS NOCAL**
IP Address:	**50.192.223.97**
Submittal Date/Time:	**8/22/2013 9:30:02 AM**
Confirmation Number:	3949064135

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

Submittal Type:	GEO_BORE
Facility Global ID:	T0600100930
Field Point:	AB-2
Facility Name:	DESERT PETROLEUM #795
File Name:	SKMBT_C35313082209181.pdf
Organization Name:	Stratus Environmental, Inc.
Username:	STRATUS NOCAL
IP Address:	50.192.223.97
Submittal Date/Time:	8/22/2013 9:30:56 AM
Confirmation Number:	9465854704

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!

Submittal Type:	**EDF**
Report Title:	**Subsurface Site Assessment Report**
Report Type:	**Site Investigation**
Facility Global ID:	**T0600100930**
Facility Name:	**DESERT PETROLEUM #795**
File Name:	**13081641_EDF.zip**
Organization Name:	**Stratus Environmental, Inc.**
Username:	**STRATUS NOCAL**
IP Address:	**50.192.223.97**
Submittal Date/Time:	**8/30/2013 1:31:38 PM**
Confirmation Number:	**1127245068**

VIEW QC REPORT

VIEW DETECTIONS REPORT

APPENDIX E

JULY 1996 COMPLIANCE SOIL SAMPLE RESULTS AND MAP

FACSIMILE COVER SHEET

DATE: 7/24/96

TO: **Eva Chu** COMPANY: **ACHA**

Fax No. **510 337-9335**

From: **Robert Mallory** Phone/Fax No. **510 658-6872**

Eva,

Soil sample analytical results and site plan of UST and product piping sampling at B&C Gas Mini Mart, 2008 First Street, Livermore, CA. Also included are the soil stockpile results (I believe this will be hauled away). I'm sure we'll be discussing these again soon. Please call if you have questions or comments at (510) 658-6872.

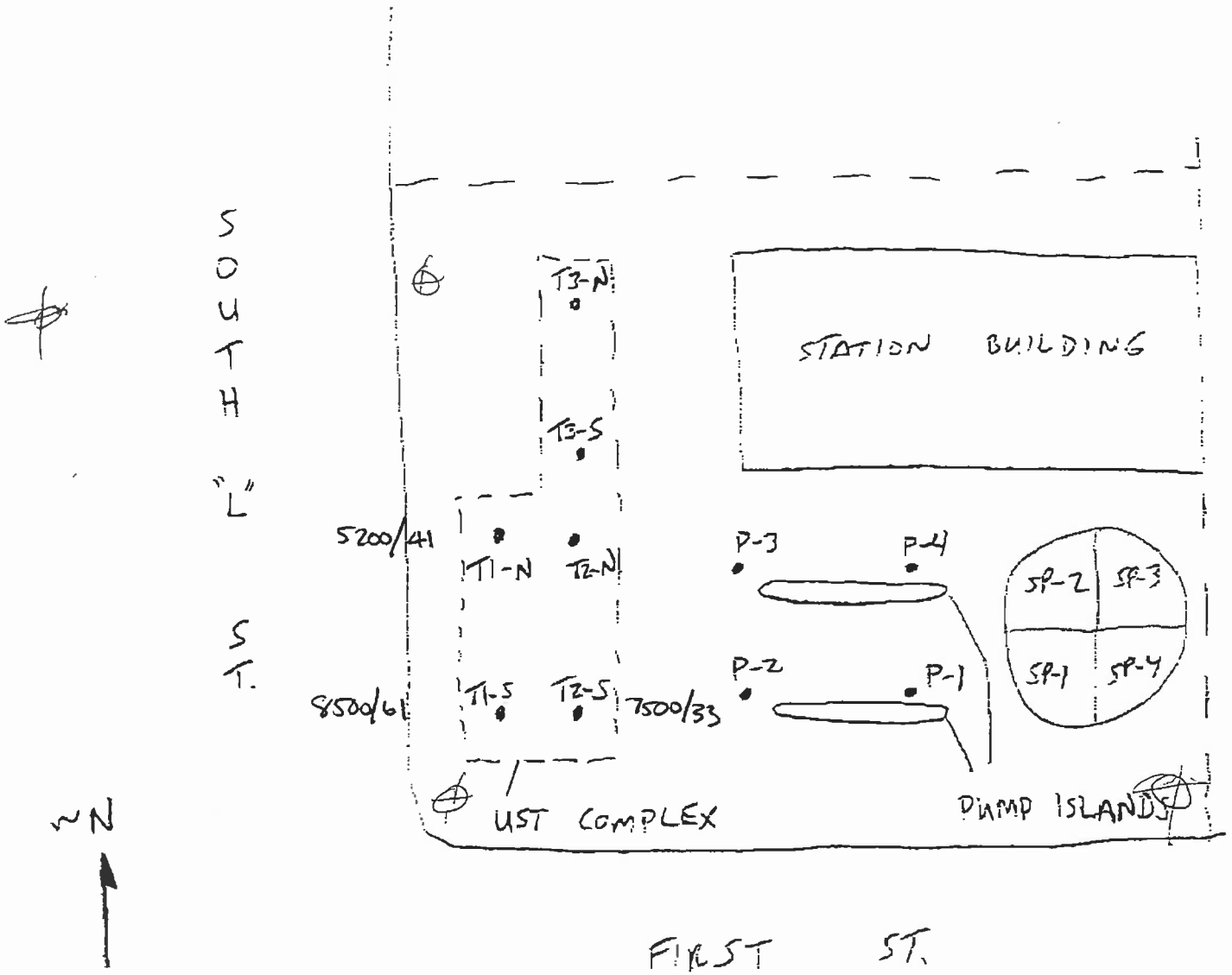
7/25/96 - Overexcavate pit to extent possible without shoring. Try to excavate to benzene conc < 10 ppm.

Sincerely,

Robert C. Mallory

total pages including cover sheet 4
enclosed are:

TOUCHSTONE DEVELOPMENTS Environmental Management
SANTA ROSA (707) 538-8618 - OAKLAND (510) 658-6872 - SONOMA (707) 935-0601
CALIFORNIA



Soil analysis
ppm TPHg/benzene @ 14' bg

B+C GAS MINI MART
2008 FIRST ST.
LIVERMORE, CA.

TABLE A
Gasoline UST and Product Piping Sampling Summary
B&C Gas Mini Mart
2008 1st Street, Livermore, California

Results in mg/Kg - parts per million (ppm)

Gasoline UST and Product Piping Sampling Results

Sample ID	Depth (ft.)	Laboratory	Date	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Total Lead
T1-S-14.0	14	Analytical Science	16-Jul-96	8500	61	250	75	380	90	
T1-N-14.0	14	Analytical Science	16-Jul-96	5200	41	92	46	260	46	
T2-S-14.0	14	Analytical Science	16-Jul-96	7500	33	250	100	400	96	
T2-N-14.0	14	Analytical Science	16-Jul-96	270	0.27	0.43	0.39	2.2	6.6	
T3-S-13.5	13.5	Analytical Science	18-Jul-96	ND	ND	ND	ND	ND	0.24	
T3-N-13.5	13.5	Analytical Science	18-Jul-96	52	1.9	1.5	ND	2.8	36	
P-1-3.0	3	Analytical Science	18-Jul-96	ND	ND	0.013	ND	0.017	0.012	
P-2-3.5	3.5	Analytical Science	18-Jul-96	ND	ND	ND	ND	ND	0.17	
P-3-3.5	3.5	Analytical Science	18-Jul-96	ND	ND	ND	ND	ND	0.015	
P-4-3.0	3	Analytical Science	18-Jul-96	ND	ND	ND	ND	ND	ND	

TPH-Gasoline = Total Petroleum Hydrocarbons calculated as Gasoline.

MTBE = Methyl t-Butyl Ether.

ND = Not detected at or above laboratory detection limits.

TABLE B
Soil Stockpile Sampling Summary
B&C Gas Mini Mart
2008 1st Street, Livermore, California

Results in mg/Kg - parts per million (ppm)

UST Excavation and Product Piping Soil Stockpile Sampling Results

Sample ID	Laboratory	Date	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Total Lead
SP-1(A-D)	Analytical Science	18-Jul-96	320	ND	ND	1.5	3.3	
SP-2(A-D)	Analytical Science	18-Jul-96	300	ND	ND	ND	6.9	
SP-3(A-D)	Analytical Science	18-Jul-96	130	ND	ND	ND	1.2	
SP-4(A-D)	Analytical Science	18-Jul-96	130	ND	ND	ND	0.90	

TPH-Gasoline = Total Petroleum Hydrocarbons calculated as Gasoline.

ND = Not detected at or above laboratory detection limits.