

# APPENDIX E: BASELINE ENVIRONMENTAL ASSESSMENT REPORT



August 25, 2015

Roger and Beth Sperring  
601 California Drive,  
Burlingame, CA 94010

Re: **Baseline Environmental Assessment Report**  
601 California Drive  
Burlingame, California 94010

Dear Mr. and Ms. Sperring:

On behalf of property owners Roger and Beth Sperring, Pangea Environmental Services, Inc. (Pangea) has prepared this *Baseline Environmental Assessment Report* (report) for the subject site. This baseline assessment was completed to evaluate site conditions near the USTs, dispensers, and waste oil tank for a prospective property transaction.

If you have any questions or comments, please call me at (510) 435-8664 or email [briddell@pangeaenv.com](mailto:briddell@pangeaenv.com).

Sincerely,  
**Pangea Environmental Services, Inc.**

A handwritten signature in dark ink, appearing to read "Bob Clark-Riddell". The signature is fluid and cursive, written over a light background.

Bob Clark-Riddell, P.E.  
Principal Engineer

Attachment: *Baseline Environmental Assessment Report*

**PANGEA Environmental Services, Inc.**

## **INTRODUCTION**

On behalf of Roger and Beth Sperring, Pangea Environmental Services, Inc. (Pangea) has prepared this *Baseline Environmental Assessment Report* (report) for the subject site. The assessment was completed to evaluate site conditions near the USTs, dispensers, and former waste oil tank for a prospective property transaction.

## **SITE BACKGROUND**

The subject site is a Valero-branded retail gasoline service station with automotive repair (Figure 1). The site consists of a 10,500-square ft building, canopy, fuel facilities, and landscaping. There are several fuel underground storage tanks (USTs) and one waste oil UST. The site is mostly paved. Land use surrounding the site is mixed commercial and residential.

## **SUBSURFACE ASSESSMENT PROCEDURES**

Subsurface site assessment involved soil and/or groundwater sampling at four locations on August 7, 2015. Boring locations are shown on Figure 1. The sampling locations were selected to provide data near the fuel USTs, dispensers, and waste oil UST. Boring SB-1 was located east of the fuel USTs and dispensers, in the presumed downgradient direction. (The presumed groundwater flow direction is east to northeast). Boring SB-2 was located southwest of the fuel USTs and dispensers, in the presumed upgradient direction. Boring SB-3 was located northwest of the dispensers. Boring SB-4 was located near the waste oil tank.

### **Pre-Drilling Activities**

A comprehensive site safety plan was prepared to protect site workers and the plan was kept onsite during all field activities. A drilling permit was obtained from San Mateo County Environmental Health. A copy of the permit is presented in Appendix A. The proposed drilling locations were marked and Underground Service Alert was notified at least 48 hours before the proposed field activities.

### **Drilling Procedures**

On August 7, 2015, Pangea coordinated the drilling of the four soil borings (SB-1 through SB-4) at the site (Figure 1). Pangea retained Penecore Drilling (Penecore) of Woodland, California, to drill the borings. Penecore conducted the associated soil and groundwater sampling using a Geoprobe 7822DT combination auger/direct push rig equipped with dual tube sampling equipment. Dual-tube direct-push drilling methods employ an outer tube to help avoid cross contamination within the inner sampling tube.

## **SITE ASSESSMENT RESULTS**

### **Site Geology and Hydrogeology**

Based on soil logging during drilling, soil from site borings consisted primarily of gravel and/or clay/silt/silty sand to a depth of approximately 12 to 13 ft below grade surface (bgs), underlain by more permeable silty sand or sandy silt with gravel observed to a depth of approximately 30 ft bgs. Wet soil (possible groundwater) and a permeable layer of gravelly sandy silt was encountered in boring SB-3 at approximately 23 to 26 ft bgs. Boring SB-2 did not produce water. Soil characteristics are described on the borings logs included in Appendix C. Based on surface topography and nearby site data, the presumed groundwater flow direction is east to northeast.

### **Soil Analytical Results**

Soil analytical results are summarized on Table 1. The only petroleum hydrocarbons detected in soil was TPH as gasoline (TPHg) from samples SB-1-5 [10 milligrams per kilogram (mg/kg)] and SB-2-13 (130 mg/kg). These concentrations are below Environmental Screening Levels (ESLs) for commercial site use established by the San Francisco Bay Regional Water Quality Control Board. All other petroleum hydrocarbons, fuel oxygenates, or other volatile organic compounds (VOCs) were below detection limits in analyzed soil samples. Analytical results are summarized on Figure 2. The laboratory analytical report is included in Appendix D.

### **Grab Groundwater Analytical Results**

Groundwater analytical results are summarized on Table 2. All hydrocarbons in groundwater are below conservative ESLs, except for one TPHg concentration (290 ug/L, SB-1) that slightly exceeds the conservative 100 ug/L ESL. No TPHg was detected in water from borings SB-3 and SB-4. The naphthalene concentration of 1.6 ug/L detected in boring SB-1 is below the ESL of 6.1 ug/L. The only dissolved metal detected in groundwater from SB-4 was barium at a concentration of 73 ug/L. The ESL for barium in groundwater that is a current or potential drinking water resource is 1,000 ug/L. The detected barium likely represent background groundwater conditions. From the SVOC analysis of groundwater from boring SB-4 near the waste oil tank, bis(2-ethylhexyl)phthalate and di-n-butyl phthalate were detected at concentrations of 17 ug/L and 6.3 ug/L, respectively. Since both of these chemicals are primarily used as plasticizers to soften plastic, Pangea suspects these reported results are due to field or laboratory factors and therefore not likely representative of groundwater conditions. The detected bis(2-ethylhexyl)phthalate concentration is slightly above the ESL of 4.0 ug/L for groundwater that is a current or potential drinking water resource. There is no ESL for di-n-butyl phthalate. Analytical results are summarized on Figure 2. The laboratory analytical report is included in Appendix D.





Figure  
**1**

Boring Location Map



601 California Drive  
Burlingame, California

# Pangea

Table 1. Soil Analytical Data - 601 California Drive, Burlingame, California

Boring/ Sample ID	Date Sampled	Sample Depth (ft bgs)	mg/Kg							Notes
			TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Oxys	
Commercial ESL for shallow soil non-dw (<3 m bgs):			500	1.2	9.3	4.7	11	8.4	Varies	
Commercial ESL for deep soil non-dw (>3 m bgs):			1,800	1.2	9.3	4.7	11	8.4	Varies	
SB-1-5	8/7/2015	5.0	10	<0.005	<0.005	<0.005	<0.015	<0.020	<0.050	
SB-2-13	8/7/2015	13.0	130	<0.005	<0.005	<0.005	<0.015	<0.020	<0.050	
SB-4-10	8/7/2015	10.0	<0.5	<0.005	<0.005	<0.005	<0.015	<0.020	<0.050	

## Explanation:

Benzene, Toluene, Ethylbenzene and Xylenes by EPA Method 8260.

TPHg = Total Petroleum Hydrocarbons as gasoline by EPA Method 8015.

MTBE = Methyl tertiary butyl ether by EPA Method 8021B or 8260B.

Oxys = Fuel oxygenates tert-amyl methyl ether, tert-butyl alcohol, di-isopropyl ether, and ethyl tert-butyl ether.

LUFT 5 Metals = Cadmium, chromium, lead, nickel, and zinc by EPA Method 6010B.

mg/Kg = milligrams per Kilogram.

m bgs = Depth below ground surface (bgs) in meters.

ft bgs = Depth below ground surface (bgs) in feet.

< n = Chemical not present at a concentration in excess of detection limit shown.

-- = Not analyzed

ND = Concentrations not detected above laboratory reporting limits.

Varies = Concentrations or concentrations detections vary.

ESL = Environmental Screening Level for Shallow/Deep Soil with Residential and Commercial/Industrial Land Use, Groundwater is/is not a current or potential

source of drinking water. (Table A/Table B/Table C/Table D).

ESL established by the SFBROWQCB, Interim Final - February 2005 and amended in February 2013.

**Bold** = Concentration above ESLs for Residential Land Use, groundwater is a current or potential source of drinking water.

non-dw = groundwater is not a current or potential source of drinking water.

dw = groundwater is a current or potential source of drinking water.

## **APPENDIX A**

Permit

# 2015 SUBSURFACE DRILLING PERMIT APPLICATION - REVISED AUGUST 1

**\$ PAID**  
\$629.00

SAN MATEO COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION  
2000 ALAMEDA DE LAS PULGAS, SUITE 100, SAN MATEO, CA 94403  
VOICE (650) 372-6200 FAX (650) 627-8244 WWW.SMCHEALTH.ORG

SAN MATEO COUNTY  
ENVIRONMENTAL HEALTH  
AUG 4 2015

REVISED FEES (8/1/15): ALLOW 3 FULL WORKING DAYS FOR PROCESSING PERMIT. DRILLING START DATE & TIME MUST  
\$629.00 (env. borings or any wells) BE SCHEDULED WITH COUNTY STAFF OR AT drilling@smcgov.org AT LEAST 2 FULL WORKING  
\$393.00 (geotechnical borings only) DAYS IN ADVANCE BUT AT LEAST 1 FULL WORKING DAY AFTER APPLICATION SUBMITTAL

**PURPOSE OF APPLICATION**  
☐ Groundwater Monitoring/Vapor Well Installation ☒ Construct Soil Borings (variance request if to be left open >24 hours)  
☐ Groundwater Monitoring/Vapor Well Destruction ☐ Extension of Permit #  
No. of Wells \_\_\_\_\_ No. of Borings 4 Well/Boring Names B-1 thru B-4

**PURPOSE OF DRILLING** ☒ Environmental ☐ Geotechnical **LEAD AGENCY** ☐ County GPP (permit approval is not to be considered work plan approval)  
☐ RWQCB/DTSC/USEPA (Provide approval letter) ☒ None (i.e. voluntary)

## SITE/ DRILLING INFORMATION

Agency Case # \_\_\_\_\_ Assessor's Parcel # (Required) 029131380 (one per permit)  
Drilling Location Address 601 California Dr. City Burlingame Zip 94010  
To Be Constructed In: ☐ Public Property ☒ Private Property ☐ Refuse  
Maximum Proposed Depth (wells/borings) 25 (feet) Drilling Method Direct push  
Boring Diameter 2.25" Casing Diameter \_\_\_\_\_ Filter Pack Interval \_\_\_\_\_ Screen Interval \_\_\_\_\_  
Destruction Method (6 gallons water max/94 lb cement, up to 5% bentonite): ☐ Pressure Grouting (provide well construction logs and grout calcs)  
☐ Overdrilling (guide rods for total depth prior to starting required)

## WELL/BORING OWNER (Well/boring owner name or contact person should match signature)

Name Severem, LLC Contact Person Dean Najdawi  
Address 505 Skyline Dr. City, State, Zip Daly City, CA 94015  
Telephone 415-515-6874 Email mdn2inc@yahoo.com

It is my responsibility to notify the County of any known changes in the purpose of this well/boring from that which is indicated on this application, to submit indication of annual usage of wells to the County, and to maintain the well in good condition. (Letter signed by well/boring owner/contact person, containing above language and attesting to knowledge of all permit requirements and conditions, may be substituted for signature.)

Well/Boring Owner's/Contact Person's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## PROPERTY OWNER (Name as appears on assessor's roles should match signature)

Name Roger and Beth Sperring Contact Person Beth Sperring  
Address 873 Woodside Way City, State, Zip San Mateo, CA 94401  
Telephone 650-576-4455 Email bsperring@sbcglobal.net

I understand that a well/boring is being installed on my property. I agree to notify the County and Well Owner of any known damage or future access issues to the well (Letter signed by property owner, containing above language, or encroachment permit may be substituted for signature.)

Property Owner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## DRILLING COMPANY

Drilling Company Penecore Drilling Contact Person Tuan Nguyen  
Address 220 N. East Street City, State, Zip Woodland, CA, USA 95776  
Telephone 530-661-3600 Email tuan@penecore.com C57 Drillers License # 906899

I certify that the well/boring will be constructed in compliance with the conditions of this permit (see reverse), the San Mateo County Well Ordinance, and the State Water Well Standards, and that the license listed above is considered current and active by the Contractors State License Board.

Driller's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## CONSULTANT COMPANY

Consultant Company Pangea Environmental Services Project Manager Elizabeth Avery  
Address 1710 Franklin St. #200 Telephone 510-836-3700  
City, State, Zip Oakland, CA 94612 Email eavery@pangeaenv.com  
Field Contact and Cell # (if known) Erik Lervaag 925-822-6749

I certify that this application is correct to the best of my knowledge and the well/boring will be constructed/destroyed in compliance with the conditions of this permit (see reverse), the San Mateo County Well Ordinance, and the State Water Well Standards. I understand that I am responsible for General Conditions "D and E" of this permit and if I indicated the purpose of drilling is geotechnical, then no one will use the boring to collect any samples for environmental analyses. If there is a change in Responsible Professional, I will notify San Mateo County GPP staff.

Responsible Professional's Name (Please print legibly) Bob Clark-Riddell

Responsible Professional's Signature \_\_\_\_\_ Date: 08/03/2015

California Professional Geologist (PG) No. \_\_\_\_\_ or Civil Engineer (PE) No. 049629

Please see additional pages of application for requirements, general permit conditions, instructions, and fees.

FA58505



# 2015 SUBSURFACE DRILLING PERMIT APPLICATION - REVISED AUGUST 1

SAN MATEO COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION  
2000 ALAMEDA DE LAS PULGAS, SUITE 100, SAN MATEO, CA 94403  
VOICE (650) 372-6200 FAX (650) 627-8244 WWW.SMCHEALTH.ORG

**REVISED FEES (8/1/15):** ALLOW 3 FULL WORKING DAYS FOR PROCESSING PERMIT. DRILLING START DATE & TIME MUST  
\$629.00 (env. borings or any wells) BE SCHEDULED WITH COUNTY STAFF OR AT [drilling@smcgov.org](mailto:drilling@smcgov.org) AT LEAST 2 FULL WORKING  
\$393.00 (geotechnical borings only) DAYS IN ADVANCE BUT AT LEAST 1 FULL WORKING DAY AFTER APPLICATION SUBMITTAL

<b>PURPOSE OF APPLICATION</b>	<input type="checkbox"/> Groundwater Monitoring/Vapor Well Installation	<input checked="" type="checkbox"/> Construct Soil Borings (variance request if to be left open >24 hours)
	<input type="checkbox"/> Groundwater Monitoring/Vapor Well Destruction	Extension of Permit # _____
No. of Wells _____	No. of Borings 4	Well/Boring Names SB-1 thru SB-4

<b>PURPOSE OF DRILLING</b>	<input checked="" type="checkbox"/> Environmental	<b>LEAD AGENCY</b>	<input type="checkbox"/> County GPP (permit approval is not to be considered work plan approval)
<input type="checkbox"/> Geotechnical		<input type="checkbox"/> RWQCB/DTSC/USEPA (Provide approval letter)	<input checked="" type="checkbox"/> None (i.e. voluntary)

## SITE/ DRILLING INFORMATION

Agency Case # _____	Assessor's Parcel # (Required) 029131380	(one per permit)
Drilling Location Address 601 California Dr.	City Burlingame	Zip 94010
To Be Constructed In: <input type="checkbox"/> Public Property <input checked="" type="checkbox"/> Private Property	<input type="checkbox"/> Refuse	
Maximum Proposed Depth (wells/borings) 25	(feet) Drilling Method Direct push	
Boring Diameter 2.25"	Casing Diameter _____	Filter Pack Interval _____ Screen Interval _____
Destruction Method (6 gallons water max/94 lb cement, up to 5% bentonite):	<input type="checkbox"/> Pressure Grouting (provide well construction logs and grout calcs)	<input type="checkbox"/> Overdrilling (guide rods for total depth prior to starting required)

## WELL/BORING OWNER

(Well/boring owner name or contact person should match signature)	
Name Severem, LLC	Contact Person Dean Najdawi
Address 505 Skyline Dr.	City, State, Zip Daly City, CA 94015
Telephone 415-515-6874	Email mdr2inc@yahoo.com
It is my responsibility to notify the County of any known changes in the purpose of this well/boring from that which is indicated on this application, to submit indication of annual usage of wells to the County, and to maintain the well in good condition. (Letter signed by well/boring owner/contact person, containing above language and attesting to knowledge of all permit requirements and conditions, may be substituted for signature.)	
Well/Boring Owner's/Contact Person's Signature:	Date: 8/3/15

## PROPERTY OWNER

(Name as appears on assessor's roles should match signature)	
Name Roger and Beth Sperring	Contact Person Beth Sperring
Address 873 Woodside Way	City, State, Zip San Mateo, CA 94401
Telephone 650-576-4455	Email bsperring@sbcglobal.net
I understand that a well/boring is being installed on my property. I agree to notify the County and Well Owner of any known damage or future access issues to the well (Letter signed by property owner, containing above language, or encroachment permit may be substituted for signature.)	
Property Owner's Signature: _____	Date: _____

## DRILLING COMPANY

Drilling Company Penecore Drilling	Contact Person Tuan Nguyen
Address 220 N. East Street	City, State, Zip Woodland, CA, USA 95776
Telephone 530-661-3600	Email tuan@penecore.com
	C57 Drillers License # 906899
I certify that the well/boring will be constructed in compliance with the conditions of this permit (see reverse), the San Mateo County Well Ordinance, and the State Water Well Standards, and that the license listed above is considered current and active by the Contractors State License Board.	
Driller's Signature: _____	Date: _____

## CONSULTANT COMPANY

Consultant Company Pangea Environmental Services	Project Manager Elizabeth Avery
Address 1710 Franklin St. #200	Telephone 510-836-3700
City, State, Zip Oakland, CA 94612	Email eavery@pangeaenv.com
Field Contact and Cell # (if known) Erik Lervaag 925-822-6749	
I certify that this application is correct to the best of my knowledge and the well/boring will be constructed/destroyed in compliance with the conditions of this permit (see reverse), the San Mateo County Well Ordinance, and the State Water Well Standards. I understand that I am responsible for General Conditions "D and E" of this permit and if I indicated the purpose of drilling is geotechnical, then no one will use the boring to collect any samples for environmental analyses. If there is a change in Responsible Professional, I will notify San Mateo County GPP staff.	
Responsible Professional's Name (Please print legibly) Bob Clark-Riddell	
Responsible Professional's Signature _____	Date: _____
California Professional Geologist (PG) No. _____	or Civil Engineer (PE) No. 049629

Please see additional pages of application for requirements, general permit conditions, instructions, and fees.

**REQUIREMENTS:**

An accurate and correct map **must** be submitted with the application and include the following: north arrow, existing and historic site features, existing and proposed well/boring locations to scale, property lines and any other pertinent information. A work plan describing the drilling and construction/destruction methodology may be requested by County staff. Upon review of information on this application, and subject to approval noted below, a permit will be issued allowing the well/boring owner, driller, and responsible professional to perform the specified work. The permit is subject to both General and Special Conditions stated below. A copy of the approved Subsurface Drilling Permit **must** be available on site while work related to the permit is being performed. Drilling may begin at the notified date and time whether County staff is present or not.

**GENERAL CONDITIONS:**

- A. Field notification must be provided to GPP drilling inspection staff at least 2 full days prior to the start of drilling.
- B. Well and boring construction and destruction under this permit is subject to the Standards for the Construction of Wells in San Mateo County, County Groundwater Protection Program (GPP) Guidelines, Policies & Procedures, the State Water Well Standards, and any instructions by a Health Department representative.
- C. Well/Boring Owner, Driller, and Responsible Professional assume responsibility for all activities and uses under the permit, including compliance with Workmen's Compensation Laws, and indemnify, defend and save the County of San Mateo, its officers, agents and employees, free and harmless from any and all expense, cost, or liability in connection with or resulting from work or stopped-work associated with the permit, including, but not limited to, property damage, personal injury, wrongful death, and loss of income.
- D. All borings **must** be properly destroyed (grouted/sealed) within 24 hours of drilling, unless special conditions are approved in writing as part of this permit, and must be continuously protected and stabilized. Temporary soil vapor wells may remain in place up to 7 days with just an additional notification for removal. Provide final grout volumes for destructions.
- E. Analytical results of all soil, vapor, and groundwater samples collected during the execution of drilling under this permit **must** be submitted to County GPP staff by the Responsible Professional within 60 days of sample collection. If contamination is discovered during drilling, verbal notification to County GPP by the Responsible Professional is **required** within 72 hours of discovery. Proper storage, labeling & disposal of investigation-derived residual wastes are the responsibility of the consultant unless stated otherwise contractually. Provide justification for >10% difference between calculated versus actual grout used.
- F. A copy of the State DWR Form 188, boring logs, well construction details, and finalized as-built locations for all borings/wells (except geotechnical borings) signed by a Responsible Professional, **must** be submitted to County GPP by the Responsible Professional within 60 days of drilling/construction/destruction.
- G. Permit is valid only for the purpose specified herein. No change in purpose or required procedures, as described on this permit application, in the associated workplan, or in the special conditions below, will be allowed except upon written permission from the County. Construction aspects can be changed based on conditions encountered in the field.
- H. Permit is valid for **one** mobilization associated with originally permitted boring/well locations only, including contingency locations, and is automatically canceled if not exercised, or if an extension is not applied for and granted within 120 days of the original permit issuance date. Failure to notify staff of cancellation or delay in start time will result in the Consultant being billed an Inspection Cancellation fee of \$264 for 2015 if GPP staff attempted to perform an inspection.
- I. Wells installed under this permit may not be used for domestic, municipal, agricultural, or irrigation water supply.
- J. All work performed **must** conform to Business and Profession Codes and State Water Well Standards.
- K. Top-of-casing elevation of all wells **must** be surveyed to the nearest 0.01-foot relative to Mean Sea Level or NAVD88 and submitted to County GPP within 60 days of drilling, and to State GeoTracker as appropriate. Geotechnical wells are exempt from this requirement if a written variance from GPP is obtained prior to drilling.
- L. Latitude and longitude of all wells **must** be surveyed with sub-meter accuracy relative to NAD83 and submitted to County GPP within 60 days of drilling, and to State GeoTracker as appropriate.
- M. Violation of any requirement or general or special permit condition may result in an order by GPP staff to cease work under this permit, correct the violation, potentially re-permit the work as a new mobilization, and potential actions may be taken against the Well Owner, Property Owner, or Responsible Professional by GPP.

**SPECIAL CONDITIONS:**

(agency use only)

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For Agency Use Only:

County Approval: 

FA#

Date: Aug. 4, 2015

## APPENDIX B

### Standard Operating Procedures

## Field Screening

Soil samples collected during drilling will be analyzed in the field for ionizable organic compounds using a photo-ionization detector (PID) with a 10.2 eV lamp. The screening procedure will involve placing an undisturbed soil sample in a sealed container (either a zip-lock bag, glass jar, or a capped soil tube). The container will be set aside, preferably in the sun or warm location. After approximately fifteen minutes, the head space within the container will be tested for total organic vapor, measured in parts per million on a volume to volume basis (ppmv) by the PID. The PID instrument will be calibrated prior to boring using hexane or isobutylene. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

## Water Sampling

Water samples collected from borings are either collected from the open borehole, from within screened PVC inserted into the borehole, or from a driven Hydropunch-type sampler. Groundwater is typically extracted using a bailer, check valve and/or a peristaltic pump. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

Pangea often performs electrical conductivity (EC) logging and/or continuous coring to identify potential water-bearing zones. Hydropunch-type sampling is then performed to provide discrete-depth grab groundwater sampling within potential water-bearing zones for vertical contaminant delineation. Hydropunch-type sampling typically involves driving a cylindrical sheath of hardened steel with an expendable drive point to the desired depth within undisturbed soil. The sheath is retracted to expose a stainless steel or PVC screen that is sealed inside the sheath with Neoprene O-rings to prevent infiltration of formation fluids until the desired depth is attained. The groundwater is extracted using tubing inserted down the center of the rods into the screened sampler.

## Duplicates and Blanks

Blind duplicate water samples are collected usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

## Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

## Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55 gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.





Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland, CA 94612  
Telephone: 510-836-3700  
Fax: 510-836-3709

**BORING NUMBER** SB-1

PAGE 1 OF 2

CLIENT \_\_\_\_\_

PROJECT NAME \_\_\_\_\_

PROJECT NUMBER \_\_\_\_\_

PROJECT LOCATION 601 California Drive

DATE STARTED 8/7/15 COMPLETED 8/7/15

GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 2.25"

DRILLING CONTRACTOR Penecore

GROUND WATER LEVELS: \_\_\_\_\_

DRILLING METHOD direct push

AT TIME OF DRILLING \_\_\_\_\_

LOGGED BY EL CHECKED BY BCR

AT END OF DRILLING \_\_\_\_\_

NOTES hand auger to 5' bgs

AFTER DRILLING \_\_\_\_\_

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	BORING DIAGRAM
0						
5					(0-5') clay (CL); dark gray to gray; strong odor	
10					(5'-10') clay (CL); gray; slight odor	
15					(10'-14.5') clay with gravel (CL); gray; slight odor	
20					(14.5'-17') silt (ML); light brown	
20.0						



Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland, CA 94612  
Telephone: 510-836-3700  
Fax: 510-836-3709

BORING NUMBER SB-2  
PAGE 1 OF 2

CLIENT \_\_\_\_\_

PROJECT NAME \_\_\_\_\_

PROJECT NUMBER \_\_\_\_\_

PROJECT LOCATION 601 California Drive

DATE STARTED 8/7/15 COMPLETED 8/7/15

GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 2.25"

DRILLING CONTRACTOR Penecore

GROUND WATER LEVELS: \_\_\_\_\_

DRILLING METHOD direct push

AT TIME OF DRILLING ---

LOGGED BY EL CHECKED BY BCR

AT END OF DRILLING ---

NOTES hand auger to 5' bgs

AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	BORING DIAGRAM
0						
5						
10						
15					(0-11') silty sand with gravel (SM); light brown	
					(11'-13') silt with gravel (ML); gray; moderate odor	
20					(13'-18') silt (ML); light brown; no odor	
20.0						



Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland, CA 94612  
Telephone: 510-836-3700  
Fax: 510-836-3709

**BORING NUMBER** SB-3  
PAGE 1 OF 2

CLIENT \_\_\_\_\_ PROJECT NAME \_\_\_\_\_  
PROJECT NUMBER \_\_\_\_\_ PROJECT LOCATION 601 California Drive  
DATE STARTED 8/7/15 COMPLETED 8/7/15 GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 2.25"  
DRILLING CONTRACTOR Penecore GROUND WATER LEVELS: \_\_\_\_\_  
DRILLING METHOD direct push AT TIME OF DRILLING 26'  
LOGGED BY EL CHECKED BY BCR AT END OF DRILLING \_\_\_\_\_  
NOTES hand auger to 5' bgs AFTER DRILLING \_\_\_\_\_

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	BORING DIAGRAM
0						
5					(0-3') gravel with sand (GP)	
10					(3'-7') silt (ML); light brown (7'-8') gravelly silt (ML); gray	
15					(8'-12.5') silt (ML); gray	
20					(12.5'-15') silty sand (SM); light gray	
20.0						



Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland, CA 94612  
Telephone: 510-836-3700  
Fax: 510-836-3709

**BORING NUMBER** SB-4  
PAGE 1 OF 1

CLIENT \_\_\_\_\_ PROJECT NAME \_\_\_\_\_  
PROJECT NUMBER \_\_\_\_\_ PROJECT LOCATION 601 California Drive  
DATE STARTED 8/7/15 COMPLETED 8/7/15 GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 2.25"  
DRILLING CONTRACTOR Penecore GROUND WATER LEVELS: \_\_\_\_\_  
DRILLING METHOD direct push AT TIME OF DRILLING ---  
LOGGED BY EL CHECKED BY BCR AT END OF DRILLING ---  
NOTES hand auger to 5' bgs AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	BORING DIAGRAM
0						
5					(0-7') sandy silt (ML); light brown	
10					(7'-12') sandy silt with gravel (ML); light brown, streaks of red	
15					(12'-14') silty sand (SM); light gray	
20						

## APPENDIX D

### Laboratory Analytical Reports



25712 Commercentre Drive  
Lake Forest, California 92630  
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949.297.5027 Fax

Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland CA, 94612

Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1-5	T151943-02	Soil	08/07/15 11:40	08/11/15 10:50
SB-2-13	T151943-10	Soil	08/07/15 14:45	08/11/15 10:50
SB-4-10	T151943-22	Soil	08/07/15 09:15	08/11/15 10:50
SB-1W	T151943-27	Water	08/07/15 17:00	08/11/15 10:50
SB-3W	T151943-28	Water	08/07/15 11:00	08/11/15 10:50
SB-4W	T151943-29	Water	08/07/15 11:00	08/11/15 10:50

SunStar Laboratories, Inc.

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland CA, 94612

Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

Sample ID: SB-1W

Laboratory ID: T151943-27

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Ethylbenzene	0.50	0.50	ug/l	EPA 8260B	
m,p-Xylene	1.0	1.0	ug/l	EPA 8260B	
C6-C12 (GRO)	290	50	ug/l	EPA 8260B	

Sample ID: SB-3W

Laboratory ID: T151943-28

No Results Detected

Sample ID: SB-4W

Laboratory ID: T151943-29

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Barium	73	50	ug/l	EPA 6010b	
Bis(2-ethylhexyl)phthalate	17	10	ug/l	EPA 8270C	O-05
Di-n-butyl phthalate	6.3	5.0	ug/l	EPA 8270C	O-05

Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland CA, 94612

Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**SB-1-5**  
**T151943-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

trans-1,2-Dichloroethene	ND	5.0	ug/kg	1	5082417	08/12/15	08/12/15	EPA 8260B	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	29	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	8.5	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	170	5.0	"	"	"	"	"	"	
n-Propylbenzene	110	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

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*Katherine RunningCrane*

Katherine RunningCrane, Project Manager





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Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**SB-2-13**  
**T151943-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C13-C28 (DRO)	15	10	mg/kg	1	5082412	08/12/15	08/15/15	EPA 8015C	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		99.2 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	5.0	ug/kg	1	5082417	08/12/15	08/12/15	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	100	5.0	"	"	"	"	"	"	
sec-Butylbenzene	86	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	

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Katherine RunningCrane, Project Manager



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Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**SB-2-13**  
**T151943-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Tert-butyl alcohol	ND	50	ug/kg	1	5082417	08/12/15	08/12/15	EPA 8260B	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	20	"	"	"	"	"	"	
<b>C6-C12 (GRO)</b>	<b>130000</b>	<b>5000</b>	<b>"</b>	<b>10</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	
Surrogate: 4-Bromofluorobenzene		170 %	81.2-123	"	"	"	"	"	S-GC
Surrogate: Dibromofluoromethane		96.9 %	95.7-135	"	"	"	"	"	
Surrogate: Toluene-d8		96.6 %	85.5-116	"	"	"	"	"	

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*Katherine RunningCrane*

Katherine RunningCrane, Project Manager

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Oakland CA, 94612

Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**SB-4-10**  
**T151943-22 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

trans-1,2-Dichloroethene	ND	5.0	ug/kg	1	5082417	08/12/15	08/12/15	EPA 8260B	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

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*Katherine RunningCrane*

Katherine RunningCrane, Project Manager



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Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland CA, 94612

Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**SB-1W**  
**T151943-27 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C13-C28 (DRO)	ND	0.50	mg/l	1	5082414	08/12/15	08/14/15	EPA 8015C	
C29-C40 (MORO)	ND	0.50	"	"	"	"	"	"	
Surrogate: p-Terphenyl		73.6 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	1.0	ug/l	1	5082418	08/12/15	08/13/15	EPA 8260B	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

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*Katherine RunningCrane*

Katherine RunningCrane, Project Manager

Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland CA, 94612

Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**SB-1W**  
**T151943-27 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Tert-amyl methyl ether	ND	2.0	ug/l	1	5082418	08/12/15	08/13/15	EPA 8260B	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
<b>C6-C12 (GRO)</b>	<b>290</b>	<b>50</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	
Surrogate: 4-Bromofluorobenzene		112 %	83.5-119		"	"	"	"	
Surrogate: Dibromofluoromethane		110 %	81-136		"	"	"	"	
Surrogate: Toluene-d8		101 %	88.8-117		"	"	"	"	

SunStar Laboratories, Inc.

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*Katherine RunningCrane*

Katherine RunningCrane, Project Manager

Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland CA, 94612

Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**SB-3W**  
**T151943-28 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

trans-1,2-Dichloroethene	ND	1.0	ug/l	1	5082418	08/12/15	08/13/15	EPA 8260B	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	

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*Katherine RunningCrane*

Katherine RunningCrane, Project Manager



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Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland CA, 94612

Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**SB-4W**  
**T151943-29 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C13-C28 (DRO)	ND	0.50	mg/l	1	5082414	08/12/15	08/14/15	EPA 8015C	
C29-C40 (MORO)	ND	0.50	"	"	"	"	"	"	
Surrogate: p-Terphenyl		88.4 %	65-135		"	"	"	"	

**Metals by EPA 6010B**

**FILT**

Antimony	ND	50	ug/l	1	5082413	08/13/15	08/24/15	EPA 6010b	
Silver	ND	50	"	"	"	"	"	"	
Arsenic	ND	50	"	"	"	"	"	"	
Barium	73	50	"	"	"	"	"	"	
Beryllium	ND	50	"	"	"	"	"	"	
Cadmium	ND	50	"	"	"	"	"	"	
Chromium	ND	50	"	"	"	"	"	"	
Cobalt	ND	50	"	"	"	"	"	"	
Copper	ND	50	"	"	"	"	"	"	
Lead	ND	50	"	"	"	"	"	"	
Molybdenum	ND	50	"	"	"	"	"	"	
Nickel	ND	50	"	"	"	"	"	"	
Selenium	ND	50	"	"	"	"	"	"	
Thallium	ND	50	"	"	"	"	"	"	
Vanadium	ND	50	"	"	"	"	"	"	
Zinc	ND	50	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.50	ug/l	1	5082416	08/12/15	08/24/15	EPA 7470A Water	FILT
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*Katherine RunningCrane*

Katherine RunningCrane, Project Manager

Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland CA, 94612

Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**SB-4W**  
**T151943-29 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	0.50	ug/l	1	5082418	08/12/15	08/13/15	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	

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Katherine RunningCrane, Project Manager



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Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**SB-4W**  
**T151943-29 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Semivolatile Organic Compounds by EPA Method 8270C**

<b>Bis(2-ethylhexyl)phthalate</b>	<b>17</b>	10	ug/l	1	5082415	08/21/15	08/22/15	EPA 8270C	O-05
4-Bromophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	O-05
Butyl benzyl phthalate	ND	10	"	"	"	"	"	"	O-05
4-Chloroaniline	ND	20	"	"	"	"	"	"	O-05
2-Chloronaphthalene	ND	10	"	"	"	"	"	"	O-05
4-Chlorophenyl phenyl ether	ND	20	"	"	"	"	"	"	O-05
Chrysene	ND	10	"	"	"	"	"	"	O-05
Dibenz (a,h) anthracene	ND	10	"	"	"	"	"	"	O-05
Dibenzofuran	ND	20	"	"	"	"	"	"	O-05
<b>Di-n-butyl phthalate</b>	<b>6.3</b>	5.0	"	"	"	"	"	"	O-05
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	O-05
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	O-05
2,4-Dichlorophenol	ND	10	"	"	"	"	"	"	O-05
Diethyl phthalate	ND	10	"	"	"	"	"	"	O-05
2,4-Dimethylphenol	ND	5.0	"	"	"	"	"	"	O-05
Dimethyl phthalate	ND	10	"	"	"	"	"	"	O-05
4,6-Dinitro-2-methylphenol	ND	5.0	"	"	"	"	"	"	O-05
2,4-Dinitrophenol	ND	10	"	"	"	"	"	"	O-05
2,6-Dinitrotoluene	ND	20	"	"	"	"	"	"	O-05
Di-n-octyl phthalate	ND	10	"	"	"	"	"	"	O-05
Fluoranthene	ND	5.0	"	"	"	"	"	"	O-05
Fluorene	ND	10	"	"	"	"	"	"	O-05
Hexachlorobenzene	ND	20	"	"	"	"	"	"	O-05
Hexachlorobutadiene	ND	10	"	"	"	"	"	"	O-05
Hexachlorocyclopentadiene	ND	20	"	"	"	"	"	"	O-05
Hexachloroethane	ND	5.0	"	"	"	"	"	"	O-05
Indeno (1,2,3-cd) pyrene	ND	10	"	"	"	"	"	"	O-05
Isophorone	ND	10	"	"	"	"	"	"	O-05
2-Methylphenol	ND	10	"	"	"	"	"	"	O-05
4-Methylphenol	ND	20	"	"	"	"	"	"	O-05
Naphthalene	ND	5.0	"	"	"	"	"	"	O-05
2-Nitroaniline	ND	10	"	"	"	"	"	"	O-05

SunStar Laboratories, Inc.

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Pangea Environmental Services, Inc. 1710 Franklin Street, Suite 200 Oakland CA, 94612	Project: 601 California, Burlingame Project Number: [none] Project Manager: Morgan Gillies	Reported: 08/24/15 17:30
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### Metals by EPA 6010B - Quality Control

#### SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 5082413 - EPA 3010A

##### Blank (5082413-BLK1)

Prepared: 08/13/15 Analyzed: 08/24/15

Antimony	ND	50	ug/l
Silver	ND	50	"
Arsenic	ND	50	"
Barium	ND	50	"
Beryllium	ND	50	"
Cadmium	ND	50	"
Chromium	ND	50	"
Cobalt	ND	50	"
Copper	ND	50	"
Lead	ND	50	"
Molybdenum	ND	50	"
Nickel	ND	50	"
Selenium	ND	50	"
Thallium	ND	50	"
Vanadium	ND	50	"
Zinc	ND	50	"

##### LCS (5082413-BS1)

Prepared: 08/13/15 Analyzed: 08/24/15

Arsenic	494	50	ug/l	500	98.8	75-125
Barium	475	50	"	500	95.0	75-125
Cadmium	492	50	"	500	98.4	75-125
Chromium	467	50	"	500	93.4	75-125
Lead	477	50	"	500	95.4	75-125

##### Matrix Spike (5082413-MS1)

Source: T151943-29

Prepared: 08/13/15 Analyzed: 08/24/15

Arsenic	484	50	ug/l	500	ND	96.8	75-125
Barium	537	50	"	500	73.0	92.8	75-125
Cadmium	478	50	"	500	ND	95.6	75-125
Chromium	470	50	"	500	ND	94.0	75-125
Lead	474	50	"	500	ND	94.8	75-125

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Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

### Cold Vapor Extraction EPA 7470/7471 - Quality Control

#### SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5082416 - EPA 7470A Water</b>										
<b>Blank (5082416-BLK1)</b>				Prepared: 08/12/15 Analyzed: 08/24/15						
Mercury	ND	0.50	ug/l							
<b>LCS (5082416-BS1)</b>				Prepared: 08/12/15 Analyzed: 08/24/15						
Mercury	4.75	0.50	ug/l	5.00		94.9	75-125			
<b>Matrix Spike (5082416-MS1)</b>				Source: T151943-29 Prepared: 08/12/15 Analyzed: 08/24/15						
Mercury	4.31	0.50	ug/l	5.00	0.0270	85.6	75-125			
<b>Matrix Spike Dup (5082416-MSD1)</b>				Source: T151943-29 Prepared: 08/12/15 Analyzed: 08/24/15						
Mercury	4.40	0.50	ug/l	5.00	0.0270	87.5	75-125	2.11	20	

SunStar Laboratories, Inc.

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Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 5082417 - EPA 5030 GCMS

##### Blank (5082417-BLK1)

Prepared: 08/11/15 Analyzed: 08/12/15

p-Isopropyltoluene	ND	5.0	ug/kg							
Methylene chloride	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
Tert-amyl methyl ether	ND	20	"							
Tert-butyl alcohol	ND	50	"							
Di-isopropyl ether	ND	20	"							
Ethyl tert-butyl ether	ND	20	"							
Methyl tert-butyl ether	ND	20	"							
C6-C12 (GRO)	ND	500	"							
Surrogate: 4-Bromofluorobenzene	40.3		"	40.0		101	81.2-123			
Surrogate: Dibromofluoromethane	35.5		"	40.0		88.8	95.7-135			S-GC
Surrogate: Toluene-d8	41.2		"	40.0		103	85.5-116			

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Katherine RunningCrane, Project Manager



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Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082418 - EPA 5030 GCMS**

**Blank (5082418-BLK1)**

Prepared: 08/12/15 Analyzed: 08/13/15

4-Chlorotoluene	ND	1.0	ug/l
Dibromochloromethane	ND	1.0	"
1,2-Dibromo-3-chloropropane	ND	5.0	"
1,2-Dibromoethane (EDB)	ND	1.0	"
Dibromomethane	ND	1.0	"
1,2-Dichlorobenzene	ND	1.0	"
1,3-Dichlorobenzene	ND	1.0	"
1,4-Dichlorobenzene	ND	1.0	"
Dichlorodifluoromethane	ND	0.50	"
1,1-Dichloroethane	ND	1.0	"
1,2-Dichloroethane	ND	0.50	"
1,1-Dichloroethene	ND	1.0	"
cis-1,2-Dichloroethene	ND	1.0	"
trans-1,2-Dichloroethene	ND	1.0	"
1,2-Dichloropropane	ND	1.0	"
1,3-Dichloropropane	ND	1.0	"
2,2-Dichloropropane	ND	1.0	"
1,1-Dichloropropene	ND	1.0	"
cis-1,3-Dichloropropene	ND	0.50	"
trans-1,3-Dichloropropene	ND	0.50	"
Hexachlorobutadiene	ND	1.0	"
Isopropylbenzene	ND	1.0	"
p-Isopropyltoluene	ND	1.0	"
Methylene chloride	ND	1.0	"
Naphthalene	ND	1.0	"
n-Propylbenzene	ND	1.0	"
Styrene	ND	1.0	"
1,1,2,2-Tetrachloroethane	ND	1.0	"
1,1,1,2-Tetrachloroethane	ND	1.0	"
Tetrachloroethene	ND	1.0	"
1,2,3-Trichlorobenzene	ND	1.0	"
1,2,4-Trichlorobenzene	ND	1.0	"
1,1,2-Trichloroethane	ND	1.0	"
1,1,1-Trichloroethane	ND	1.0	"
Trichloroethene	ND	1.0	"
Trichlorofluoromethane	ND	1.0	"

SunStar Laboratories, Inc.

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*Katherine RunningCrane*

Katherine RunningCrane, Project Manager

Pangea Environmental Services, Inc.  
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Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 5082418 - EPA 5030 GCMS

##### LCS Dup (5082418-BSD1)

Prepared: 08/12/15 Analyzed: 08/13/15

Chlorobenzene	21.6	1.0	ug/l	20.0		108	75-125	0.697	20	
1,1-Dichloroethene	22.6	1.0	"	20.0		113	75-125	0.707	20	
Trichloroethene	19.9	1.0	"	20.0		99.4	75-125	0.555	20	
Benzene	21.9	0.50	"	20.0		109	75-125	4.87	20	
Toluene	19.8	0.50	"	20.0		99.2	75-125	2.19	20	
Surrogate: 4-Bromofluorobenzene	8.67		"	8.00		108	83.5-119			
Surrogate: Dibromofluoromethane	9.61		"	8.00		120	81-136			
Surrogate: Toluene-d8	7.65		"	8.00		95.6	88.8-117			

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Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082415 - EPA 3510C GCMS/ECD**

**Blank (5082415-BLK1)**

Prepared: 08/21/15 Analyzed: 08/22/15

1,2-Dichlorobenzene	ND	5.0	ug/l
1,3-Dichlorobenzene	ND	5.0	"
2,4-Dichlorophenol	ND	10	"
Diethyl phthalate	ND	10	"
2,4-Dimethylphenol	ND	5.0	"
Dimethyl phthalate	ND	10	"
4,6-Dinitro-2-methylphenol	ND	5.0	"
2,4-Dinitrophenol	ND	10	"
2,6-Dinitrotoluene	ND	20	"
Di-n-octyl phthalate	ND	10	"
Fluoranthene	ND	5.0	"
Fluorene	ND	10	"
Hexachlorobenzene	ND	20	"
Hexachlorobutadiene	ND	10	"
Hexachlorocyclopentadiene	ND	20	"
Hexachloroethane	ND	5.0	"
Indeno (1,2,3-cd) pyrene	ND	10	"
Isophorone	ND	10	"
2-Methylphenol	ND	10	"
4-Methylphenol	ND	20	"
Naphthalene	ND	5.0	"
2-Nitroaniline	ND	10	"
3-Nitroaniline	ND	10	"
4-Nitroaniline	ND	20	"
Nitrobenzene	ND	20	"
2-Nitrophenol	ND	10	"
N-Nitrosodiphenylamine	ND	10	"
N-Nitrosodimethylamine	ND	25	"
Phenanthrene	ND	10	"
2,4,5-Trichlorophenol	ND	20	"
2,4,6-Trichlorophenol	ND	10	"
2,3,4,6-Tetrachlorophenol	ND	10	"
2,3,5,6-Tetrachlorophenol	ND	10	"
1,4-Dinitrobenzene	ND	10	"
Pyridine	ND	10	"

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Katherine RunningCrane, Project Manager

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Project: 601 California, Burlingame  
Project Number: [none]  
Project Manager: Morgan Gillies

Reported:  
08/24/15 17:30

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082415 - EPA 3510C GCMS/ECD**

**LCS Dup (5082415-BSD1)**

Prepared: 08/21/15 Analyzed: 08/22/15

Pentachlorophenol	123	10	ug/l	200		61.5	50-130	0.987	50	
Pyrene	140	10	"	200		70.0	26-127	3.32	31	
Surrogate: 2-Fluorophenol	62.3		"	200		31.1	15-121			
Surrogate: Phenol-d6	33.4		"	200		16.7	24-113			S-GC
Surrogate: Nitrobenzene-d5	143		"	200		71.6	14.7-110			
Surrogate: 2-Fluorobiphenyl	187		"	200		93.6	33.3-110			
Surrogate: 2,4,6-Tribromophenol	200		"	200		99.9	12.9-110			
Surrogate: Terphenyl-d14	229		"	200		115	15.8-136			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

*Katherine RunningCrane*

Katherine RunningCrane, Project Manager



SunStar Laboratories, Inc.  
25712 Commercentre Dr  
Lake Forest, CA 92630  
949-297-5020

## Chain of Custody Record

Client: Pangea Env. Sys.  
Address: 1710 Franklin St, Oakland  
Phone: 510-836-3700 Fax: \_\_\_\_\_  
Project Manager: Morgan Gillies

Date: 8.7.15 Page: 1 Of 3  
Project Name: \_\_\_\_\_  
Collector: B. Lervag Client Project #: \_\_\_\_\_  
Batch #: 7151943 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Total # of containers	Chain of Custody seals	Seals intact?	Received good condition/cold	Turn around time:
SB-1-3	8.7.15	10:55	Grab	sleeve														
SB-1-5		11:40																
SB-1-10		11:45																
SB-1-15		11:50																
SB-1-20		11:55																
SB-1-25		12:00																
SB-1-30		12:05																
SB-2-5		14:35																
SB-2-10		14:40																
SB-2-13		14:45																
SB-2-15		14:50																
SB-2-20		14:55																
SB-2-25		15:00																
SB-2-30		15:05																
SB-3-5	8.7.15	08:25	Grab	sleeve														
Relinquished by: (signature)			Received by: (signature)															
Relinquished by: (signature)	8.7.15	19:00	Received by: (signature)															
Relinquished by: (signature)	8.7.15	10:50	Received by: (signature)															
Relinquished by: (signature)	8.7.15	10:50	Received by: (signature)															
Sample disposal instructions: Disposal @ \$2.00 each																		
Return to client																		
Pickup																		

COC 131819

SunStar Laboratories, Inc.  
25712 Commercentre Dr  
Lake Forest, CA 92630  
949-297-5020

Client: Pangea Env. Sys Date: 8.7.15 Page: 3 of 3  
Address: 170 Franklin St, Oakland Project Name: \_\_\_\_\_  
Phone: 510-836-3700 Collector: \_\_\_\_\_ Client Project #: \_\_\_\_\_  
Fax: \_\_\_\_\_ EDF #: \_\_\_\_\_  
Project Manager: Morgan Gillies mj.gillies@pangeaenv.com Batch #: 775/998

[illegible]

Sample disposal instructions:	Disposal @ \$2.00 each	Return to client	Pickup

COC 131821

SunStar Laboratories, Inc.  
25712 Commercentre Dr  
Lake Forest, CA 92630  
949-297-5020

# Chain of Custody Record

Client: Pangea Env Svcs. Date: 8-7-15 Page: 1 of 3  
Address: 1710 Franklin St. Oak land Project Name: 601 California, Burlingame  
Phone: 510 836 3700 Fax: \_\_\_\_\_ Collector: E. Lervag Client Project #: \_\_\_\_\_  
Project Manager: Monica Gillies Batch #: \_\_\_\_\_ EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY + TPH + head scavengers	8270	8021 BTEX	8015M (gasoline)	8015M (diesel) + motor oil	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
SB-1-3'	8-7-15	1055	Grab	sleeve										hold	
SB-1-5'		1140								X				hold	
SB-1-10		1145													
SB-1-15		1150													
SB-1-20		1155													
SB-1-25		1200													
SB-1-30		1205													
SB-2-5'		1435													
SB-2-10		1440													
SB-2-15		1445								X				hold	
SB-2-20		1450													
SB-2-25		1455													
SB-2-30		1500													
SB-3-5'	8-7-15	0825	Grab	sleeve											
Relinquished by: (signature) _____ Date / Time _____															Total # of containers
Relinquished by: (signature) _____ Date / Time _____															Chain of Custody seals Y/N/NA
Relinquished by: (signature) _____ Date / Time _____															Seals intact? Y/N/NA
Relinquished by: (signature) _____ Date / Time _____															Received good condition/cold
Sample disposal Instructions: Disposal @ \$2.00 each _____															Turn around time: <u>STD</u>

COC 121819



SunStar Laboratories, Inc.  
25712 Commerce Dr  
Lake Forest, CA 92630  
949-297-5020

Client: Pangea Env. Svcs Date: 8-7-15 Page: 3 of 3  
Address: 1745 Franklin St. Oakland Project Name: 601 California, Burlingame  
Phone: 510-836-3700 Collector: \_\_\_\_\_ Client Project #: \_\_\_\_\_  
Fax: \_\_\_\_\_ Batch #: \_\_\_\_\_  
Project Manager: Morgan Gillies m.gillies@pangeaenv.com

[illegible]

COC 131821

**WORK ORDER**

**T151943**

**Client:** Pangea Environmental Services, Inc.

**Project Manager:** Katherine RunningCrane

**Project:** 601 California, Burlingame

**Project Number:** [none]

Analysis	Due	TAT	Expires	Comments
<b>T151943-07 SB-1-30 [Soil] Sampled 08/07/15 12:05 (GMT-08:00) Pacific Time HOLD</b>				
(US &				
[NO ANALYSES]				
<b>T151943-08 SB-2-5 [Soil] Sampled 08/07/15 14:35 (GMT-08:00) Pacific Time HOLD</b>				
(US &				
[NO ANALYSES]				
<b>T151943-09 SB-2-10 [Soil] Sampled 08/07/15 14:40 (GMT-08:00) Pacific Time HOLD</b>				
(US &				
[NO ANALYSES]				
<b>T151943-10 SB-2-13 [Soil] Sampled 08/07/15 14:45 (GMT-08:00) Pacific Time</b>				
(US &				
8015 CC (D/MO)	08/18/15 15:00	5	08/21/15 14:45	
8260	08/18/15 15:00	5	08/21/15 14:45	+ OXY, GRO & lead scavengers
<b>T151943-11 SB-2-15 [Soil] Sampled 08/07/15 14:50 (GMT-08:00) Pacific Time HOLD</b>				
(US &				
[NO ANALYSES]				
<b>T151943-12 SB-2-20 [Soil] Sampled 08/07/15 14:55 (GMT-08:00) Pacific Time HOLD</b>				
(US &				
[NO ANALYSES]				
<b>T151943-13 SB-2-25 [Soil] Sampled 08/07/15 15:00 (GMT-08:00) Pacific Time HOLD</b>				
(US &				
[NO ANALYSES]				
<b>T151943-14 SB-2-30 [Soil] Sampled 08/07/15 15:05 (GMT-08:00) Pacific Time HOLD</b>				
(US &				
[NO ANALYSES]				
<b>T151943-15 SB-3-5 [Soil] Sampled 08/07/15 08:25 (GMT-08:00) Pacific Time HOLD</b>				
(US &				
[NO ANALYSES]				
<b>T151943-16 SB-3-10 [Soil] Sampled 08/07/15 08:30 (GMT-08:00) Pacific Time HOLD</b>				
(US &				
[NO ANALYSES]				

**WORK ORDER**

**T151943**

**Client:** Pangea Environmental Services, Inc.

**Project Manager:** Katherine RunningCrane

**Project:** 601 California, Burlingame

**Project Number:** [none]

Analysis	Due	TAT	Expires	Comments
<b>T151943-27 SB-1W [Water] Sampled 08/07/15 17:00 (GMT-08:00) Pacific Time (US &amp;</b>				
8015 CC (D/MO)	08/18/15 15:00	5	08/14/15 17:00	
8260	08/18/15 15:00	5	08/21/15 17:00	+ OXY, GRO & lead scavengers
<b>T151943-28 SB-3W [Water] Sampled 08/07/15 11:00 (GMT-08:00) Pacific Time (US &amp;</b>				
8015 CC (D/MO)	08/18/15 15:00	5	08/14/15 11:00	
8260	08/18/15 15:00	5	08/21/15 11:00	+ OXY, GRO & lead scavengers
<b>T151943-29 SB-4W [Water] Sampled 08/07/15 11:15 (GMT-08:00) Pacific Time (US &amp;</b>				
6010 Title 22	08/18/15 15:00	5	02/03/16 11:15	dissolved
8015 CC (D/MO)	08/18/15 15:00	5	08/14/15 11:15	
8260	08/18/15 15:00	5	08/21/15 11:15	+ OXY, GRO & lead scavengers
8270C	08/18/15 15:00	5	08/21/15 11:15	

**Analysis groups included in this work order**

6010 Title 22

subgroup 6010B T22      7470/71 Hg