

August 17, 2016

Mr. Mark Detterman  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, California 94502



Re: **Site Management Plan Supplement**

Bockman Road Property  
1233 Bockman Road  
San Lorenzo, California 94577  
Voluntary Remedial Action Case #RO0003217

Dear Mr. Dettermen:

On behalf of PAULS Corporation, LLC, Pangea Environmental Services, Inc. (Pangea) has prepared this *Supplement* to the *Soil Management Plan (SMP)* dated May 16, 2016 and revised June 27, 2016. The purpose of the SMP Supplement is to confirm that the low levels of volatile organic compounds (VOCs) discovered near the former auto repair facility at 1415 Bockman, as recently documented in Engeo's *Phase II Environmental Site Assessment* dated July 2, 2015 and revised August 2, 2016, do not pose a risk to human health or the environment. The SMP Supplement also provides tasks and contingency plans in the event VOCs are discovered above applicable regulatory environmental screening levels.

**SMP Supplemental Plan**

Pangea's SMP supplemental plan involves the following:

1. During grading activity, Pangea will conduct visual and other monitoring consistent with the SMP.
2. Geophysical surveying will be conducted to search for potential underground structures such as oil/water separators, underground storage tanks (USTs), piping, and sumps. Identified anomalies will be further investigated using exploratory excavation. Any confirmed subgrade structures will be removed with ACEH notice and any applicable permit requirement (e.g, UST removal permit).
3. Additional site assessment will be initiated within the next two weeks to confirm the levels of VOCs found in soil gas and groundwater. Figure 1 illustrates the proposed soil gas and groundwater sampling locations with respect to available sampling data and historic features at the site. Since groundwater may be present at or near 10 ft below grade surface, Figure 1 compares data to groundwater vapor intrusion ESLs for shallow groundwater. Engeo's boring logs for nearby borings are also attached. The obtained additional data will be provided to ACEH.
4. If VOC impact exceeds applicable screening levels, Pangea may conduct additional delineation of the VOC extent in soil, soil gas or groundwater.
5. Consistent with Section 5.2 of the SMP, impacted soil will be excavated and stockpiled onsite following ACEH notification and concurrence. A PID will be used to screen soil for segregation. Consistent with Section 5.3 of the SMP, confirmation sampling will be conducted following any soil removal for mitigation purposes.

**PANGEA Environmental Services, Inc.**

1710 Franklin Street, Suite 200, Oakland, CA 94612 Telephone 510.836.3700 [www.pangeaenv.com](http://www.pangeaenv.com)

6. Contingency measures include the installation of a passive subslab ventilation system (SSV) if VOC impact in soil gas exceeds applicable screening levels. SSV system installation would be performed with ACEH concurrence of system design and construction quality assurance plans.

We trust this information satisfies your requirements. If additional information is required, please contact me at (510) 435-8664.

Sincerely,

**Pangea Environmental Services, Inc.**



Bob Clark-Riddell, P.E.  
Principal Engineer



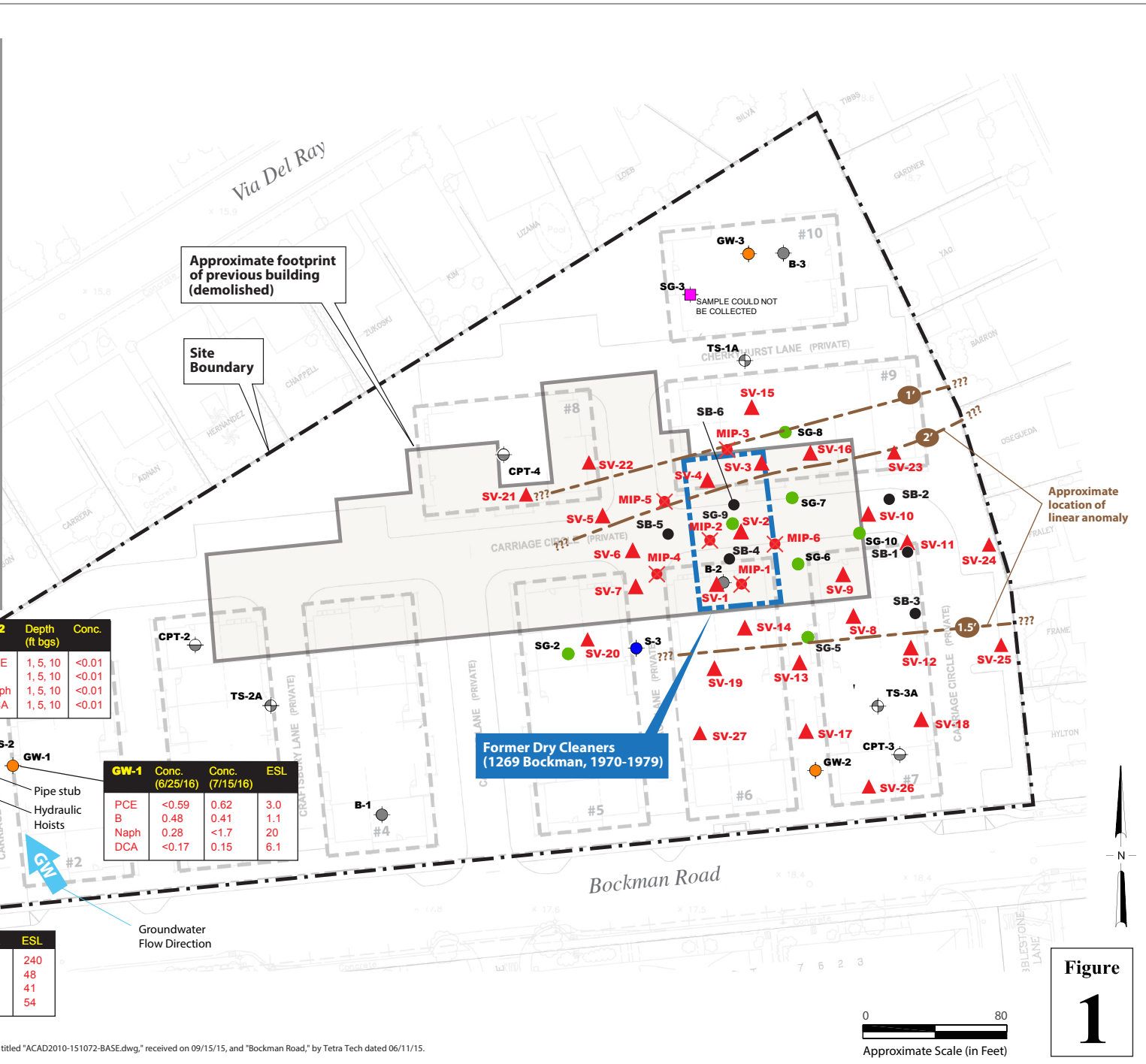
CC: Andrew Lavau  
PAULS Corporation, LLC  
100 Saint Paul Street  
Denver, Colorado 80206

## ATTACHMENTS

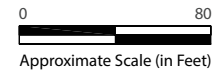
Figure 1 – Proposed Sampling Locations  
Boring and CPT logs

**LEGEND**

- SV-1** ▲ Soil Vapor Probe (Pangea, 2016)
- MIP-1** ✖ MIP Borings (Pangea, 2016)
- SB-1** ● Soil Borings (Pangea, 2016)
- SG-5** ● Soil Gas Sample (Engeo, 2015-2016)
- S-3** ● Soil Sample (Engeo, 2015)
- GW-3** ● Groundwater Sample (Engeo, 2016)
- B-3** ● Boring (Treadwell Rollo, 2015)
- TS-3A** ● Boring (Terrasearch, 2004)
- CPT-4** ● Cone Penetration Test (Treadwell Rollo, 2015)
- ▲ Proposed Soil Vapor Probe
- Proposed Grab Groundwater
- GW-1** All Groundwater Concentration data in µg/L collected by Engeo
- S-1, S-2** All Soil Concentration data in mg/kg collected by Engeo
- SG-1** All Soil Gas Concentration data in µg/m<sup>3</sup> collected by Engeo
- ESL** Environmental Screening Level for Shallow Groundwater/Soil Gas and a Residential Scenario
- - - GPR linear anomaly
- 2' Anomaly depth
- Site Boundary
- Approximate footprint of previous building (demolished)



Map courtesy of ENGeo Incorporated. Base map derived from an electronic file titled "ACAD2010-151072-BASE.dwg," received on 09/15/15, and "Bockman Road," by Tetra Tech dated 06/11/15.

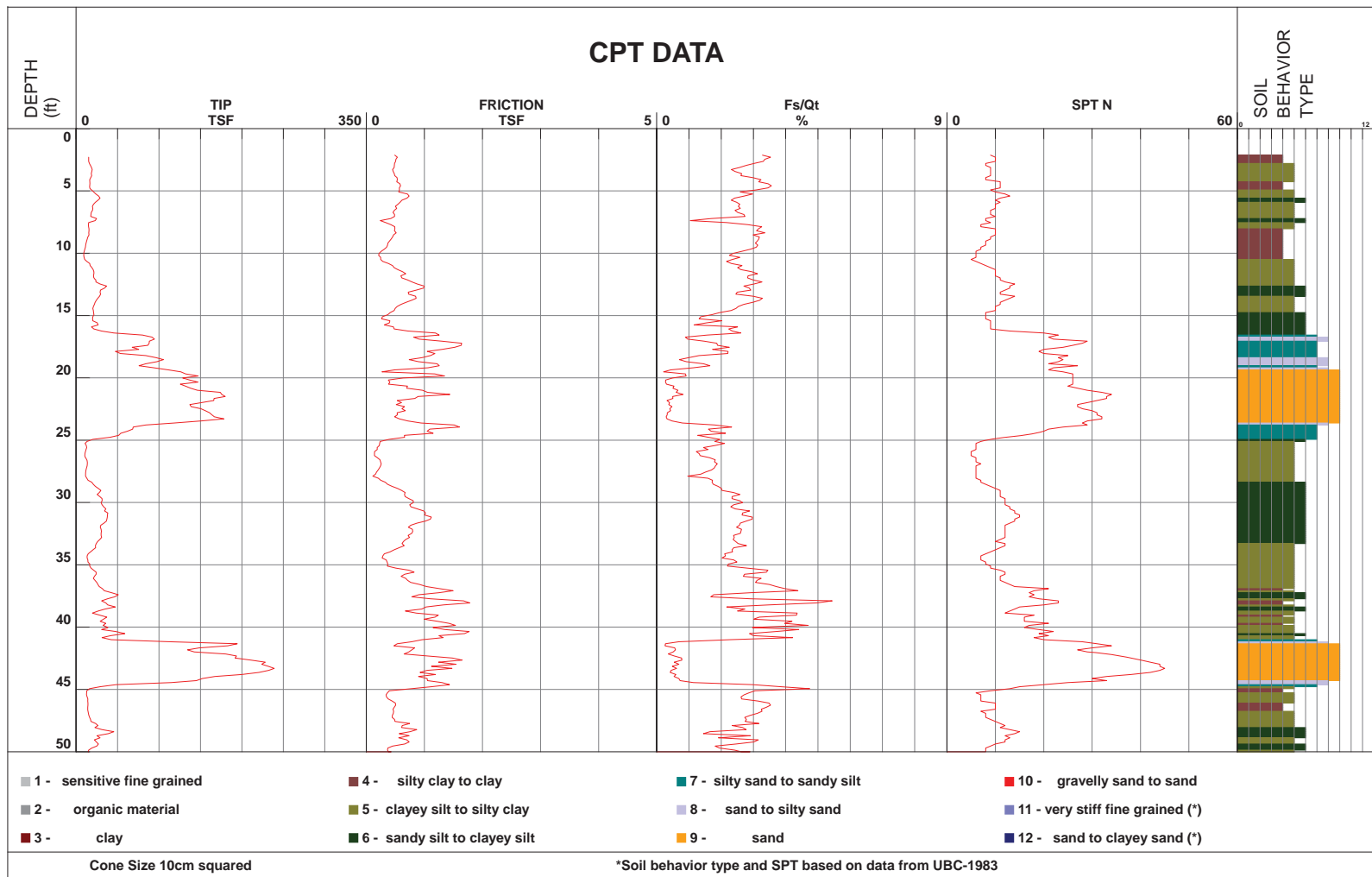


**Figure 1**

1233 Bockman Road  
San Lorenzo, California



Proposed Sampling Locations -  
Former Auto Repair Area



Terminated at 50.5 feet.  
 Groundwater estimated at 8.7 feet (PPDT).  
 Date performed 08/17/15.  
 Predrilled to a depth of 2 feet, bgs.  
 Ground surface elevation: 16.1 feet, NAVD 88, elevations based on topographic drawing titled "Bockman Road," prepared by RJA Associates, for Tetra Tech, dated 06/11/15.

1233 BOCKMAN ROAD  
San Lorenzo, California

**CONE PENETRATION TEST RESULTS**  
**CPT-1**

Date 09/01/15	Project No. 770625801	Figure C-1
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***LANGAN TREADWELL ROLLO***



# LOG OF BORING GW-1

1233 Bockman Ave  
San Lorenzo, California  
12181.000.000

DATE DRILLED: 7/15/2016  
HOLE DEPTH: Approx. 17 ft.  
HOLE DIAMETER: 2.0 in.  
SURF ELEV (NAVD88): Approx. 13 ft.

LOGGED / REVIEWED BY: L. Gordon / SM  
DRILLING CONTRACTOR: Gregg Drilling & Testing  
DRILLING METHOD: Direct Push  
HAMMER TYPE: N/A

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Unconfined Strength (tsf) *field approx	Well Construction
			SILTY SAND (SM), reddish brown to yellowish brown, medium dense, moist [FILL]							
			SILTY CLAY (CL), dark gray to black, medium stiff, moist, medium plasticity, with carbonate nodules							
1										
5			CLAY (CL), gray, stiff, moist, with carbonate nodules and some silt and fine sand							
2			Transitioned to dark yellowish brown with higher silt content.							
			SILTY SAND (SM), dark yellowish brown, soft, wet, poorly graded, with silt							
10			CLAY (CH), dark olive brown, very stiff, moist, high plasticity, increasingly softer to 10.5' bgs.							
3			SILTY CLAY (CL), pale olive to dark olive brown, very stiff, moist, iron oxide staining, some silt and sand							
			CLAY (CL-CH), pale olive to yellowish brown, hard to medium stiff, moist, medium plasticity, some silt and fine sand lenses							
4										
15			SILTY SAND (SM), dark yellowish brown, very soft, wet, poorly graded							
			CLAY (CH), dark yellowish brown, hard to very soft, moist, high plasticity							
5			SILTY SAND (SM), dark yellowish brown, medium dense, moist, medium plasticity, with fine to medium gravels							
			End of borehole at 17' below ground surface (bgs), encountered groundwater at 14.5' bgs.							