

Nowell, Keith, Env. Health

From: John Lucio <John.Lucio@erm.com>
Sent: Tuesday, September 11, 2018 10:57 AM
To: Roe, Dilan, Env. Health; Nowell, Keith, Env. Health
Cc: Conner, Anne P; Xiaodong Huang; Arun Chemburkar; Gina Sperinde
Subject: RE: S-081 Brush St Backfill - Hansen Clayton Quarry Sampling Summary
Attachments: Summary Final Report of Backfill Import Soil Sampling at PGE 205 Brush S....pdf

On September 7, 2018 PG&E collected samples from the Hansen Clayton quarry stockpile for the import backfill screening. Three Class II aggregate (Class II AB) and one 1.5-inch base rock samples were collected and analyzed in accordance with the Soil Import Management Plan (SIMP). Both materials are virgin materials mined at the quarry. Samples were taken from the fines of the materials to facilitate lab testing, which we believe would be biased high. Table 1 in the attached report summarizes the results against the SIMP screening levels.

One Class II AB had arsenic detected at 16 mg/kg. The screening level for arsenic is 14 mg/kg. Although the detection exceeded the screening level slightly, we believe it is within the background level in the area.

All four samples had cobalt detected above the SIMP screening level of 23 mg/kg, ranging from 29 to 41 mg/kg. For reference, the site cobalt cleanup goal in the FS/RAP is 28 mg/kg. However, since these potential import material are virgin materials from the quarry, the cobalt concentrations are most likely natural occurring and background levels. Given that the site will have a deed restriction and a soil management plan that will identify any potential risks to reduce any potential exposure to future site workers, we believe that this material could be used as backfill as long as the cobalt concentrations were identified within the soil management plan.

Due to impending construction schedules, we would like to have a quick 5-minute discussion as soon as possible with you to get your thoughts on the use of this material. Do you think this would be possible?

Thank you for your consideration.

Thanks,

John Lucio
Program Director

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September 10, 2018

Hydrochem PSC
1802 Shelton Drive
Hollister, California 95023

Attn: Mr. Edwin Sargenti, Project Manager
edwin.sargenti@hydrochempsc.com

RE: Project # PSC-1816 B: Sampling of Import Soil for Backfilling the Excavation located at the PG&E Facility at 205 Brush Street, Oakland, California.

Dear Mr. Sargenti,

This Report is prepared to address a request from HydrochemPSC (PSC) to collect samples of the import fill to be used as backfill for the soil remediation work performed at the PG&E facility (formerly owned by the Port of Oakland) located at 205 Brush Street, Oakland, California. The purpose of collecting samples was to have the fill analyzed for chemicals of concern (COCs) to ensure that concentrations of the COCs are below site-specific import screening values listed in ERM's "Soil Import Management Plan (SIMP)" dated May 2018. The plan covers the type of sampling, frequency, number of samples to be collected, analytical methods, and site-specific environmental screening levels with which to compare the sample results. The screening levels are listed in Table 2 of the SIMP. Import of fill to the site will not begin until the analytical data is reported and confirmed to meet the screening levels within the SIMP.

On September 7, 2018, Environmental Technical Services (ETS) collected representative soil samples from two (2) separate stockpiles of proposed backfill material, located at the Hanson Aggregate Clayton Quarry at Pine Hollow Road in Concord, California. PSC proposes to use approximately 2,000 cubic yards of 3/4-inch Class 2 Base Rock, and 125 cubic yards of 3-inch Minus (1-1/2 inch) Base Rock. With the assistance of Hanson Quarry, ETS collected four (4) representative 4-point composite samples from the approximate 800-cubic yard stockpile of 3/4-inch Class 2 Base Rock (Pile "BR1"), and one (1) representative 4-point composite sample from the approximate 700-cubic yard stockpile of 1-1/2-inch Base Rock (3-inch Minus) Stockpile (Pile "BR2"). Mr. Xiaodong Huang, P.E. and Project Manager for ERM, was on-site during the soil sampling to ensure the sampling was conducted in accordance with the SIMP.

The analytical methods and number of samples to be collected are given in Table 1 of the SIMP. Initial sampling depicts the total number of samples required and the sample analyses: 1 sample from each type of material must be analyzed for CA Title 22 metals; polycyclic aromatic hydrocarbons (PAHs); total volatile petroleum hydrocarbons (TVPH); total extractable petroleum hydrocarbons; volatile organic compounds (VOCs); pesticides and herbicides; polychlorinated biphenyls (PCBs) and asbestos. Samples BR1a and Sample BR2 were analyzed as initial samples. Production sampling depicts the number of samples; 1). for the first 1,000 cubic yards (CY) where samples are collected every 250 CY

and 2). for the remaining backfill where a sample is collected every 500 CY. The remaining samples BR1b and BR1c were analyzed for CA Title 22 metals; PAHs; TVPH; and TEPH.

Samples were placed in 16-ounce glass jars, labeled, photographed, and placed on ice in a cooler for transport directly to McCampbell Analytical, Inc., located in Pittsburg, California for all samples except asbestos. Asbestos samples were transported directly to EMSL Analytical Inc., located in San Leandro, California. McCampbell Analytical, Inc. holds a certification with the California State Environmental Laboratory Accreditation Program, (ELAP) Certificate No. 1644, with an expiration date of 10/31/2018. EMSL holds a certification with the American Industrial Hygiene Association Laboratory Accreditation Program (IHLAP) Certificate No. 101748, with an expiration date of 05/01/2020.

The report continues on the next page.

CAM 17 Metals

The cobalt concentrations in all four samples at 40 mg/kg, 41 mg/kg, 40 mg/kg and 29 mg/kg exceeded the Clean Import Fill Screening Level (screening level) of 23 mg/kg. The arsenic concentration in BR-1c at 16 mg/kg exceeded the screening level of 14 mg/kg. All other metal concentrations were below the screening levels.

Table 1.					
PG&E S-081 205 Brush Street, Oakland, California 94607					
CAM-17 Analytical Test Results Summary for Import Fill (mg/kg)					
Sample ID	205BS-090718-BR-1a	205BS-090718-BR-1b	205BS-090718-BR-1c	205BS-090718-BR-2	SIMP Final Clean Import Fill Screening Level mg/kg, except as noted
Sample Description	3/4-inch Class 2 Base Rock Virgin	3/4-inch Class 2 Base Rock Virgin	3/4-inch Class 2 Base Rock Virgin	3-inch Minus (1.5-inch) Base Rock Virgin (Unwashed)	
Sample Location	Level 1 GPS: 37.930363°N, 121.957892°W	Level 1 GPS: 37.930363°N, 121.957892°W	Level 1 GPS: 37.930363°N, 121.957892°W	Level 3 GPS: 37.930363°N, 121.957892°W	
Sampling Date: 09/07/2018					
Sampling Time	10:29	10:32	10:38	10:52	
Antimony	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.50)	31
Arsenic	0.9	3.7	16	0.97	14
Barium	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	3,000
Beryllium	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.50)	42
Cadmium	ND (<0.25)	ND (<0.25)	ND (<0.25)	ND (<0.25)	39
Chromium III	41	41	38	37	120,000
Chromium VI	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	0.30
Cobalt	40	41	40	29	23
Copper	150	440	470	200	3,100
Lead	ND (<0.50)	ND (<0.50)	ND (<0.50)	0.54	80
Mercury	0.8	1.1	0.90	1.0	13
Molybdenum	0.5	0.86	1.3	0.51	390
Nickel	29	26	26	24	86
Selenium	1.2	1.6	1.4	1.1	390
Silver	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.50)	390
Thallium	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.50)	0.78
Vanadium	110	130	140	120	390
Zinc	47	35	39	52	23,000

ND = Not Detected

Value in parenthesis is the Reporting Limit

Yellow highlighted area designates that sample result is above the screening level

Total Petroleum Hydrocarbons (TPH) as Gasoline, Diesel and Motor Oil

All concentrations of TPH as gasoline, diesel and motor oil did not exceed the screening levels.

Table 2. PG&E S-081 205 Brush Street, Oakland, California 94607 Total Petroleum Hydrocarbons (TPH) as Gasoline, Diesel and Motor Oil Analytical Test Results Summary for Import Fill (mg/kg)					
Sample ID	205BS-090718- BR-1a	205BS-090718- BR-1b	205BS-090718- BR-1c	205BS-090718- BR-2	SIMP Final Clean Import Fill Screening Level mg/kg, except as noted
Sample Description	3/4-inch Class 2 Base Rock Virgin	3/4-inch Class 2 Base Rock Virgin	3/4-inch Class 2 Base Rock Virgin	3-inch Minus (1.5-inch) Base Rock Virgin (Unwashed)	
Sample Location	Level 1 GPS: 37.930363°N, 121.957892°W	Level 1 GPS: 37.930363°N, 121.957892°W	Level 1 GPS: 37.930363°N, 121.957892°W	Level 3 GPS: 37.930363°N, 121.957892°W	
Sampling Date: 09/07/2018					
Sampling Time	10:29	10:32	10:38	10:52	
TPH As Gasoline	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	
TPH as Diesel	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	230
TPH as Motor Oil	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	5,100

ND = Not Detected

Value in parenthesis is the Reporting Limit

Volatile Organic Compounds (VOCs)

The tert-butyl alcohol, 1,2-dibromo-3-chloropropane, 1,2-Dibromoethane (EDB), and 1,2-Dichloroethane reporting levels (in both types of base rock) were higher than their screening levels.

Table 3. PG&E S-081 205 Brush Street, Oakland, California 94607 Analytical Test Results Summary for Volatile Organic Compounds (VOCs)(mg/kg)			
Sample ID	205BS-090718- BR-1a	205BS-090718- BR-2	SIMP Final Clean Import Fill Screening Level mg/kg, except as noted
Sample Description	3/4-inch Class 2 Base Rock Virgin	3-inch Minus (1.5-inch) Base Rock Virgin (Unwashed)	
Sample Location	Level 1 GPS: 37.930363°N, 121.957892°W	Level 3 GPS: 37.930363°N, 121.957892°W	
Sampling Date: 09/07/2018			
Sampling Time	10:29	10:52	
Acetone	ND (<0.018)	ND (<0.018)	0.50
Benzene	ND (<0.0046)	ND (<0.0046)	0.04
Bromodichloromethane	ND (<0.0046)	ND (<0.0046)	0.52
Bromoform	ND (<0.0046)	ND (<0.0046)	1.7
Bromomethane	ND (<0.0092)	ND (<0.0091)	0.30
2-Butanone (MEK)	ND (<0.0092)	ND (<0.0091)	5.1
tert-Butyl alcohol	ND (<0.092)	ND (<0.091)	0.075
Carbon tetrachloride	ND (<0.0046)	ND (<0.0046)	0.048
Chlorobenzene	ND (<0.0046)	ND (<0.0046)	1.5
Chloroethane	ND (<0.0092)	ND (<0.0092)	1.1
Chloroform	ND (<0.0046)	ND (<0.0046)	0.068
Chloromethane	ND (<0.0092)	ND (<0.0091)	29
Dibromochloromethane	ND (<0.0046)	ND (<0.0046)	3.8
1,2-dibromo-3-chloropropane	ND (<0.0046)	ND (<0.0046)	0.0045
1,2-Dibromoethane (EDB)	ND (<0.0046)	ND (<0.0046)	0.00033
1,2-Dichlorobenzene	ND (<0.0046)	ND (<0.0046)	1.6
1,3-Dichlorobenzene	ND (<0.0046)	ND (<0.0046)	7.4
1,4-Dichlorobenzene	ND (<0.0046)	ND (<0.0046)	0.59
1,1-Dichloroethane	ND (<0.0046)	ND (<0.0046)	0.20
1,2-Dichloroethane	ND (<0.0046)	ND (<0.0046)	0.0045

ND = Not Detected

Value in parenthesis is the Reporting Limit

Yellow highlighted area designates that sample result is above the screening level

Volatile Organic Compounds (VOCs) (Cont.)

The vinyl chloride reporting limit was higher than the screening level for both samples.

Table 3. (Cont.) PG&E S-081 205 Brush Street, Oakland, California 94607 Analytical Test Results Summary for Volatile Organic Compounds (VOCs)(mg/kg)			
Sample ID	205BS-090718- BR-1a	205BS-090718- BR-2	SIMP Final Clean Import Fill Screening Level mg/kg, except as noted
Sample Description	3/4-inch Class 2 Base Rock Virgin	3-inch Minus (1.5-inch) Base Rock Virgin (Unwashed)	
Sample Location	Level 1 GPS: 37.930363°N, 121.957892°W	Level 3 GPS: 37.930363°N, 121.957892°W	
Sampling Date: 09/07/2018			
Sampling Time	10:29	10:52	
1,1 Dichloroethene	ND (<0.0046)	ND (<0.0046)	0.55
cis-1,2-Dichloroethene	ND (<0.0046)	ND (<0.0046)	0.19
1,2-Dichloropropane	ND (<0.0046)	ND (<0.0046)	0.12
1,3-Dichloropropane	ND (<0.0046)	ND (<0.0046)	0.059
Ethylbenzene	ND (<0.0046)	ND (<0.0046)	1.4
Hexachlorobutadiene	ND (<0.0046)	ND (<0.0046)	0.68
Methyl -t-butyl ether (MTBE)	ND (<0.0046)	ND (<0.0046)	0.023
Methylene Chloride	ND (<0.018)	ND (<0.018)	0.077
Methyl isobutyl ketone	ND (<0.0046)	ND (<0.0046)	2.8
Naphthalene	ND (<0.0046)	ND (<0.0046)	0.033
Styrene	ND (<0.0046)	ND (<0.0046)	1.5
1,1,1,2 Tetrachloroethane	ND (<0.0046)	ND (<0.0046)	0.010
1,1,2,2 Tetrachloroethane	ND (<0.0046)	ND (<0.0046)	0.018
Tetrachloroethene	ND (<0.0046)	ND (<0.0046)	0.420
Toluene	ND (<0.0046)	ND (<0.0046)	2.900
1,2,4-Trichlorobenzene	ND (<0.0046)	ND (<0.0046)	1.500
1,1,1-Trichloroethane	ND (<0.0046)	ND (<0.0046)	7.800
1,1,2-Trichloroethane	ND (<0.0046)	ND (<0.0046)	0.070
Trichloroethene	ND (<0.0046)	ND (<0.0046)	0.460
Vinyl chloride	ND (<0.0092)	ND (<0.0091)	0.0082
Xylenes	ND (<0.0046)	ND (<0.0046)	2.300

ND = Not Detected

Value in parenthesis is the Reporting Limit

Yellow highlighted area designates that sample result is above the screening level

Semi-Volatile Organic Compounds

The reporting limit for bis (2-chloroethyl) ether exceeded the screening level in all four samples..

Table 4. PG&E S-081 205 Brush Street, Oakland, California 94607 Analytical Test Results Summary for Semi-Volatile Organic Compounds (SVOCs) (mg/kg)					
Sample ID	205BS-090718- BR-1a	205BS-090718- BR-1b	205BS-090718- BR-1c	205BS-090718- BR-2	SIMP Final Clean Import Fill Screening Level mg/kg, except as noted
Sample Description	3/4-inch Class 2 Base Rock Virgin	3/4-inch Class 2 Base Rock Virgin	3/4-inch Class 2 Base Rock Virgin	3-inch Minus (1.5-inch) Base Rock Virgin (Unwashed)	
Sample Location	Level 1 GPS: 37.930363°N, 121.957892°W	Level 1 GPS: 37.930363°N, 121.957892°W	Level 1 GPS: 37.930363°N, 121.957892°W	Level 3 GPS: 37.930363°N, 121.957892°W	
Sampling Date: 09/07/2018					
Sampling Time	10:29	10:32	10:38	10:52	
Acenaphthene	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	
Acenaphthylene	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	13
Anthracene	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	2.8
Benzo (a) anthracene	ND (<0.0050))	ND (<0.0050))	ND (<0.0050))	ND (<0.0050))	*
Benzo (b) fluoranthene	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	*
Benzo (k) fluoranthene	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	*
Benzo (g,h,i) perylene	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	2.5
Benzo (a) pyrene	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	*
Benzo (a) pyrene equivalents	ND (<.0090)	ND (<.0090)	ND (<.0090)	ND (<.0090)	0.90
1,1-Biphenyl	ND (<0.013)	ND (<0.013)	ND (<0.013)	ND (<0.013)	0.65
Bis (2-chloroethyl) ether	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	0.0015
Bis (2-chloroisopropyl) ether	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	0.0039
Bis (2-ethylhexyl) phthalate	ND (<0.0050))	ND (<0.0050))	ND (<0.0050))	ND (<0.0050))	39

ND = Not Detected

Value in parenthesis is the Reporting Limit

Yellow highlighted area designates that sample result is above the screening level

* The calculation for Benzo (a) pyrene equivalents are found in table 2 of the SIMP)

Semi-Volatile Organic Compounds (Cont.)

The reporting limit for 2,4-Dinitrotoluene exceeded the screening level in all four samples..

Table 4. (Cont.)					
PG&E S-081 205 Brush Street, Oakland, California 94607					
Analytical Test Results Summary for Semi-Volatile Organic Compounds (SVOCs) (mg/kg)					
Sample ID	205BS-090718- BR-1a	205BS-090718- BR-1b	205BS-090718- BR-1c	205BS-090718- BR-2	SIMP Final Clean Import Fill Screening Level mg/kg, except as noted
Sample Description	3/4-inch Class 2 Base Rock Virgin	3/4-inch Class 2 Base Rock Virgin	3/4-inch Class 2 Base Rock Virgin	3-inch Minus (1.5-inch) Base Rock Virgin (Unwashed)	
Sample Location	Level 1 GPS: 37.930363°N, 121.957892°W	Level 1 GPS: 37.930363°N, 121.957892°W	Level 1 GPS: 37.930363°N, 121.957892°W	Level 3 GPS: 37.930363°N, 121.957892°W	
Sampling Date: 09/07/2018					
Sampling Time	10:29	10:32	10:38	10:52	
p-Chloroaniline	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	0.0039
2-Chlorophenol	ND (<0.0050))	ND (<0.0050))	ND (<0.0050))	ND (<0.0050))	0.012
Chrysene	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	*
Dibenzo (a,h) anthracene	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	*
3,3 Dichlorobenzidine	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	0.012
2,4-Dichlorophenol	ND (<0.013)	ND (<0.013)	ND (<0.013)	ND (<0.013)	0.3
Diethyl phthalate	ND (<0.0050))	ND (<0.0050))	ND (<0.0050))	ND (<0.0050))	0.035
Dimethyl phthalate	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	0.035
2,4-Dimethylphenol	ND (<0.25)	ND (<0.25)	ND (<0.25)	ND (<0.25)	0.67
2,4-Dinitrophenol	ND (<0.13)	ND (<0.13)	ND (<0.13)	ND (<0.13)	0.11
2,4-Dinitrotoluene	ND (<0.0063)	ND (<0.0063)	ND (<0.0063)	ND (<0.0063)	0.0018
Fluoranthene	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	ND (<0.0013)	60
Fluorene	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	8.9
Ideno (1,2,3-cd) pyrene	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	*
2-Methylnaphthalene	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	0.25
Phenanthrene	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	11
Phenol	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	0.076
Pyrene	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	85
1,2,4-Trichlorobenzene	ND (<0.25)	ND (<0.25)	ND (<0.25)	ND (<0.25)	1.5
2,4,5-Trichlorophenol	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	ND (<0.0025)	0.18
2,4,6-Trichlorophenol	ND (<0.013)	ND (<0.013)	ND (<0.013)	ND (<0.013)	0.21

ND = Not Detected

Value in parenthesis is the Reporting Limit

Yellow highlighted area designates that sample result is above the screening level

* The calculation for Benzo (a) pyrene equivalents are found in table 2 of the SIMP)

Organochloride Pesticides and Polychlorinated Biphenyls (PCBs)

The reporting limits for dieldrin, endrin, heptachlor, and heptachlor epoxide were greater than their screening levels.

Table 5. PG&E S-081 205 Brush Street, Oakland, California 94607 Organochloride Pesticides and PCBs Analytical Test Results Summary for Import Fill (mg/kg)			
Sample ID	205BS-090718- BR-1a	205BS-090718- BR-2	SIMP Final Clean Import Fill Screening Level mg/kg, except as noted
Sample Description	3/4-inch Class 2 Base Rock Virgin	3-inch Minus (1.5-inch) Base Rock Virgin (Unwashed)	
Sample Location	Level 1 GPS: 37.930363°N, 121.957892°W	Level 3 GPS: 37.930363°N, 121.957892°W	
Sampling Date: 09/07/2018			
Sampling Time	10:29	10:52	
Aldrin	ND (<0.0010)	ND (<0.0010)	0.036
Chlordane	ND (<0.025)	ND (<0.025)	0.48
DDD	ND (<0.0010)	ND (<0.0010)	2.7
DDE	ND (<0.0010)	ND (<0.0010)	1.9
DDT	ND (<0.0010)	ND (<0.0010)	1.9
Dieldrin	ND (<0.0010)	ND (<0.0010)	0.00017
Endosulfan	ND (<0.0010)	ND (<0.0010)	0.0046
Endrin	ND (<0.0010)	ND (<0.0010)	0.00065
Heptachlor	ND (<0.0010)	ND (<0.0010)	0.00077
Heptachlor epoxide	ND (<0.0010)	ND (<0.0010)	0.00042
Hexachlorobenzene	ND (<0.010)	ND (<0.010)	0.34
Methoxychlor	ND (<0.0010)	ND (<0.0010)	19
Toxaphene	ND (<0.050)	ND (<0.050)	0.005
PCBs, Total	ND (<0.050)	ND (<0.050)	0.25

ND = Not Detected

Value in parenthesis is the Reporting Limit

Yellow highlighted area designates that sample result is above the screening level

If you have any questions regarding this report, please contact me at (925) 413-2454.

Chlorinated Herbicides

The reporting limit for pentachlorophenol was lower than its screening level and none was detected in the sample.

Table 6. PG&E S-081 205 Brush Street, Oakland, California 94607 Chlorinated Herbicides Analytical Test Results Summary for Import Fill (mg/kg)			
Sample ID	205BS-090718- BR-1a	205BS-090718- BR-2	SIMP Final Clean Import Fill Screening Level mg/kg, except as noted
Sample Description	3/4-inch Class 2 Base Rock Virgin	3-inch Minus (1.5-inch) Base Rock Virgin (Unwashed)	
Sample Location	Level 1 GPS: 37.930363°N, 121.957892°W	Level 3 GPS: 37.930363°N, 121.957892°W	
Sampling Date: 09/07/2018			
Sampling Time	10:29	10:52	
Pentachlorophenol	ND (<0.050)	ND (<0.050)	

ND = Not Detected

Value in parenthesis is the Reporting Limit

Asbestos

No asbestos was detected in either sample.

Table 7.			
PG&E S-081 205 Brush Street, Oakland, California 94607			
Asbestos Analytical Test Results Summary for Import Fill (%)			
Sample ID	205BS-090718- BR-1a	205BS-090718- BR-2	SIMP Final Clean Import Fill Screening Level mg/kg, except as noted
Sample Description	3/4-inch Class 2 Base Rock Virgin	3-inch Minus (1.5-inch) Base Rock Virgin (Unwashed)	
Sample Location	Level 1 GPS: 37.930363°N, 121.957892°W	Level 3 GPS: 37.930363°N, 121.957892°W	
Sampling Date: 09/07/2018			
Sampling Time	10:29	10:52	
Asbestos	ND - 100% non- fibrous	ND - 100% non- fibrous	

ND = Not Detected

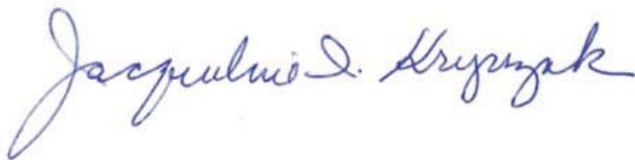
Conclusion

Cobalt concentrations in for all four samples and the arsenic concentration in one sample exceeded their screening levels. The reporting limits for 5 VOCs, 2 SVOCs, and 4 Pesticides/PCBs were higher than their Clean Import Fill Screening Levels.

ETS recommends that ERM review the sample results to determine if the base rock is approved for use at the PG&E Facility located at 205 Brush Street, Oakland, CA.

Please contact me if you have any questions regarding this report.

Sincerely,



Jacqueline I. Kryszak, MS, CIH, CSP
Industrial Hygiene Program Manager

Enclosures: pages



PG&E at 205 Brush Street, Oakland, California
- Backfill Material Sampling at Hanson Aggregate Clayton Quarry -



September 7, 2018, Environmental Technical Services (ETS) collected representative soil samples from two (2) separate stockpiles of proposed backfill material, located at the Hanson Aggregate Clayton Quarry in Concord, CA, which is intended for the PG&E 205 Brush Street project in Oakland, California. PSC proposes to use approximately 2,000 cubic yards of 3/4-inch Class 2 Base Rock, and 250-cubic yards of 3-inch Minus (1-1/2 inch) Base Rock. With the assistance of Hanson Quarry, ETS collected four (4) representative 4-point composite samples from the approximate 800-cubic yard stockpile of 3/4-inch Class 2 Base Rock (Pile "BR1" illustrated above), and one (2) representative 4-point composite sample from the approximate 700-cubic yard stockpile of 1-1/2 inch Base Rock (3-inch Minus) Stockpile (Pile "BR2"). A representative from ERM was on-site during the soil sampling to ensure the sampling was conducted in accordance with their Soil Import Management Plan for the project.



SAMPLE ID: 205BS-090718-BR1a

Two (2) representative 4-point composite soil samples (initial) collected from the Representative Sample Stockpile 1 taken from the 800-cubic yard stockpile of 3/4-inch Class 2 Base Rock located at Level 1 of the Hanson Clayton Quarry.



SAMPLE ID: 205BS-090718-BR1b

Representative 4-point composite soil sample collected from the Representative Sample Stockpile 2 taken from the 800-cubic yard stockpile of 3/4-inch Class 2 Base Rock located at Level 1 of the Hanson Clayton Quarry.

PG&E at 205 Brush Street, Oakland, California
- Backfill Material Sampling at Hanson Aggregate Clayton Quarry -



SAMPLE ID: 205BS-090718-BR1c

Representative 4-point composite soil sample collected from the 800-cubic yard stockpile of 3/4-inch Class 2 Base Rock located at Level 1 of the Hanson Clayton Quarry.



Approximately 700-cubic yard stockpile of 1-1/2 inch (3-inch Minus) Base Rock located at Level 3 of the Hanson Clayton Quarry.



SAMPLE ID: 205BS-090718-BR2

Two (2) representative 4-point composite soil samples (initial) collected from the Representative Sample Stockpile 1 taken from the 700-cubic yard stockpile of 1-1/2 inch (3-inch Minus) Base Rock located at Level 3 of the Hanson Clayton Quarry.





Project: Hanson Aggregate
 On-site I.H.: J. Kayszak / M. Reed
 Hrs./Mileage: _____
 Temperature: AM _____ PM _____

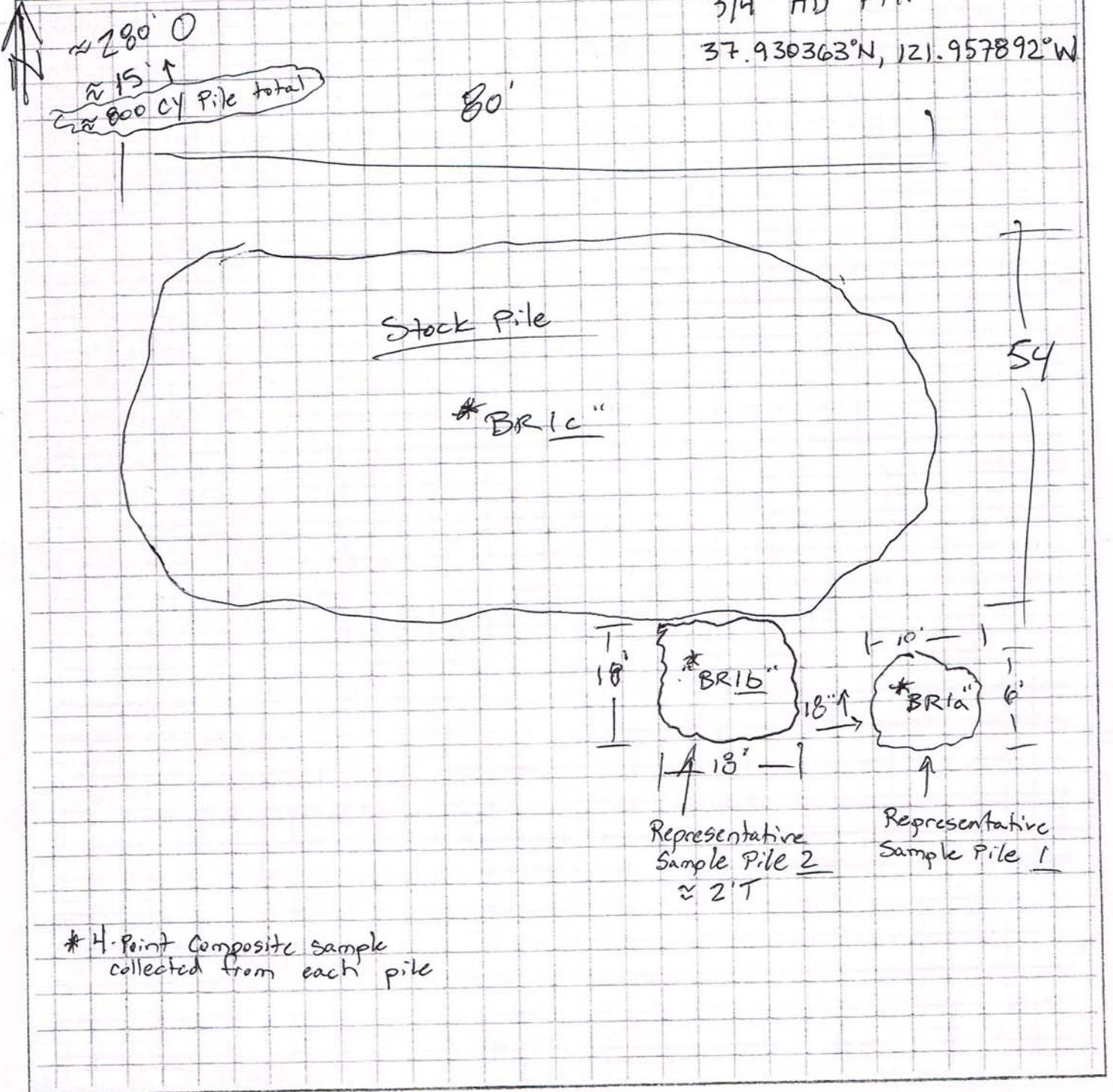
Date: 9/7/18
 Day No: _____ Shift No: _____
 Project No.: PSC-1816-B
 Condition: AM _____ PM _____

PREFIX = 205BS-090718-

Level 1

3/4" AB Fill

37.930363°N, 121.957892°W



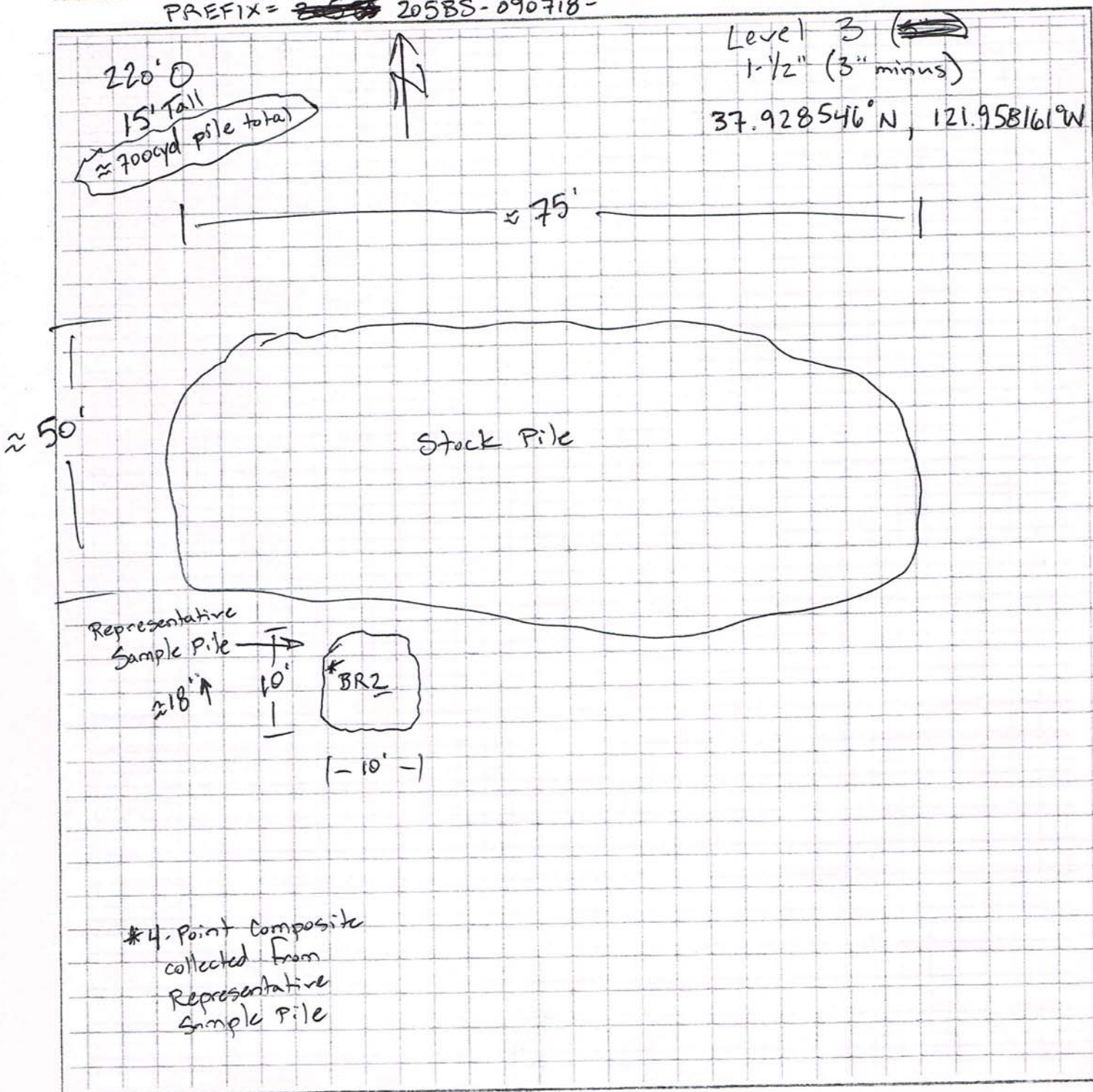
* 4-Point Composite sample collected from each pile



Project: Hanson Aggregate
On-site I.H.: J. Kroyzak / M. Reed
Hrs./Mileage: _____
Temperature: AM _____ PM _____

Date: 9/7/18
Day No: _____ Shift No: _____
Project No.: PSC-1816-B
Condition: AM _____ PM _____

PREFIX = ~~255~~ 205BS-090718-





ENTHALPY

ANALYTICAL



Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 303024
ANALYTICAL REPORT

McC Campbell Analytical
1534 Willow Pass Road
Pittsburg, CA 94565

Project : STANDARD
Location : pge s-081
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
205BS-090718-BR1A	303024-001
205BS-090718-BR2	303024-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____

Date: 09/10/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

CASE NARRATIVE

Laboratory number: 303024
Client: McCampbell Analytical
Location: pge s-081
Request Date: 09/07/18
Samples Received: 09/07/18

This data package contains sample and QC results for two soil samples, requested for the above referenced project on 09/07/18. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):

No analytical problems were encountered.

303024

RUSH

SUB CHAIN-OF-CUSTODY RECORD

McC Campbell Analytical, Inc.
 1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 Phone: (925) 252-9262
 Fax: (925) 252-9269

WorkOrder 1809196 ClientCode: ETR EDF: NO

24 HR RUSH
~~24 HR RUSH~~

Subcontractor:
 Curtis & Thompkins
 2323 5th St.
 Berkeley, CA 94710
 TEL: (510) 486-0900
 FAX:
 ProjectNo: PGE S-081
 Acct #: N/A

Date Received: 09/07/2018

Lab ID	Client ID	Matrix	Collection Date	TAT	Requested Tests
1809196-001A	205BS-090718-BR1a	Soil	9/7/2018 10:29	1	SW8260B + TBA
1809196-004A	205BS-090718-BR2	Soil	9/7/2018 10:52	1	

PLEASE ANALYZE FOR \$260

include TBA
 * include spreadsheet

Comments: PLEASE USE 'CLIENT ID' AS THE SAMPLE ID AND EMAIL ASAP!

Please email results to at subdata@mccampbell.com upon completion.

Relinquished by: [Signature] Date/Time: 9/7/18

Relinquished by: [Signature] Date/Time: 14:15

SAMPLE RECEIPT CHECKLIST



Section 1: Login # 303024
 Date Received: 09-07-18

Client: McCampbell
 Project: PLG S-081

Section 2: Samples received in a cooler? Yes, how many? _____ No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # A, or B

Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened _____ By (print) _____ (sign) _____

Shipping info (if applicable) _____

Are custody seals present? No, or Yes. If yes, where? on cooler, on samples, on package

Date: _____ How many _____ Signature, Initials, None

Were custody seals intact upon arrival? Yes No N/A

Section 3: **Important : Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

Bubble Wrap, Foam blocks, Bags, None, Cloth material, Cardboard, Styrofoam, Paper towels

Samples received on ice directly from the field. Cooling process had begun

Type of ice used: Wet, Blue/Gel, None Temperature blank(s) included? Yes, No

Temperature measured using Thermometer ID: _____, or IR Gun # A B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	<input checked="" type="checkbox"/>		
Were Method 5035 sampling containers present?		<input checked="" type="checkbox"/>	
If YES, what time were they transferred to freezer? _____			
Did all bottles arrive unbroken/unopened?	<input checked="" type="checkbox"/>		
Are there any missing / extra samples?		<input checked="" type="checkbox"/>	
Are samples in the appropriate containers for indicated tests?	<input checked="" type="checkbox"/>		
Are sample labels present, in good condition and complete?	<input checked="" type="checkbox"/>		
Does the container count match the COC?	<input checked="" type="checkbox"/>		
Do the sample labels agree with custody papers?	<input checked="" type="checkbox"/>		
Was sufficient amount of sample sent for tests requested?	<input checked="" type="checkbox"/>		
Did you change the hold time in LIMS for unpreserved VOAs?			<input checked="" type="checkbox"/>
Did you change the hold time in LIMS for preserved terracores?			<input checked="" type="checkbox"/>
Are bubbles > 6mm absent in VOA samples?			<input checked="" type="checkbox"/>
Was the client contacted concerning this sample delivery?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
If YES, who was called? _____ By _____ Date: _____			

Section 5: YES NO N/A

Are the samples appropriately preserved? (if N/A, skip the rest of section 5)

Did you check preservatives for all bottles for each sample?

Did you document your preservative check?

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:
 H2SO4 lot# _____ added to samples _____ on/at _____
 HCL lot# _____ added to samples _____ on/at _____
 HNO3 lot# _____ added to samples _____ on/at _____
 NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 09-07-18 By (print) Will Rice (sign) [Signature]
 Date Labeled 09-07-18 By (print) Will Rice (sign) [Signature]

Detections Summary for 303024

Results for any subcontracted analyses are not included in this summary.

Client : McCampbell Analytical
Project : STANDARD
Location : pge s-081

Client Sample ID : 205BS-090718-BR1A Laboratory Sample ID : 303024-001

No Detections

Client Sample ID : 205BS-090718-BR2 Laboratory Sample ID : 303024-002

No Detections

Purgeable Organics by GC/MS

Lab #:	303024	Location:	pge s-081
Client:	McC Campbell Analytical	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	205BS-090718-BR1A	Diln Fac:	0.9191
Lab ID:	303024-001	Batch#:	263288
Matrix:	Soil	Sampled:	09/07/18
Units:	ug/Kg	Received:	09/07/18
Basis:	as received	Analyzed:	09/09/18

Analyte	Result	RL	MDL
Freon 12	ND	9.2	0.5
Chloromethane	ND	9.2	1.2
Vinyl Chloride	ND	9.2	0.9
Bromomethane	ND	9.2	1.1
Chloroethane	ND	9.2	0.5
Trichlorofluoromethane	ND	4.6	0.6
Acetone	ND	18	3.0
Freon 113	ND	4.6	0.4
1,1-Dichloroethene	ND	4.6	0.9
Methylene Chloride	ND	18	1.0
Carbon Disulfide	ND	4.6	0.8
MTBE	ND	4.6	0.9
trans-1,2-Dichloroethene	ND	4.6	0.8
Vinyl Acetate	ND	46	0.7
1,1-Dichloroethane	ND	4.6	1.1
2-Butanone	ND	9.2	1.2
cis-1,2-Dichloroethene	ND	4.6	0.8
2,2-Dichloropropane	ND	4.6	1.0
Chloroform	ND	4.6	1.2
Bromochloromethane	ND	4.6	0.9
1,1,1-Trichloroethane	ND	4.6	0.7
1,1-Dichloropropene	ND	4.6	0.6
Carbon Tetrachloride	ND	4.6	0.4
1,2-Dichloroethane	ND	4.6	0.9
Benzene	ND	4.6	0.8
Trichloroethene	ND	4.6	0.8
1,2-Dichloropropane	ND	4.6	0.7
Bromodichloromethane	ND	4.6	0.8
Dibromomethane	ND	4.6	0.7
4-Methyl-2-Pentanone	ND	9.2	0.9
cis-1,3-Dichloropropene	ND	4.6	0.6
Toluene	ND	4.6	0.7
trans-1,3-Dichloropropene	ND	4.6	0.6
1,1,2-Trichloroethane	ND	4.6	0.6
2-Hexanone	ND	9.2	0.8
1,3-Dichloropropane	ND	4.6	0.8
Tetrachloroethene	ND	4.6	0.5
Dibromochloromethane	ND	4.6	0.5
1,2-Dibromoethane	ND	4.6	0.6
Chlorobenzene	ND	4.6	0.6
1,1,1,2-Tetrachloroethane	ND	4.6	0.6
Ethylbenzene	ND	4.6	0.6
m,p-Xylenes	ND	4.6	1.1
o-Xylene	ND	4.6	0.6
Styrene	ND	4.6	0.5
Bromoform	ND	4.6	0.4
Isopropylbenzene	ND	4.6	0.5
1,1,2,2-Tetrachloroethane	ND	4.6	0.4
1,2,3-Trichloropropane	ND	4.6	0.5
Propylbenzene	ND	4.6	0.4
Bromobenzene	ND	4.6	0.5
1,3,5-Trimethylbenzene	ND	4.6	0.5
2-Chlorotoluene	ND	4.6	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #:	303024	Location:	pge s-081
Client:	McC Campbell Analytical	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	205BS-090718-BR1A	Diln Fac:	0.9191
Lab ID:	303024-001	Batch#:	263288
Matrix:	Soil	Sampled:	09/07/18
Units:	ug/Kg	Received:	09/07/18
Basis:	as received	Analyzed:	09/09/18

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	4.6	0.6
tert-Butylbenzene	ND	4.6	0.4
1,2,4-Trimethylbenzene	ND	4.6	0.6
sec-Butylbenzene	ND	4.6	0.4
para-Isopropyl Toluene	ND	4.6	0.4
1,3-Dichlorobenzene	ND	4.6	0.4
1,4-Dichlorobenzene	ND	4.6	0.5
n-Butylbenzene	ND	4.6	0.3
1,2-Dichlorobenzene	ND	4.6	0.5
1,2-Dibromo-3-Chloropropane	ND	4.6	0.9
1,2,4-Trichlorobenzene	ND	4.6	0.5
Hexachlorobutadiene	ND	4.6	0.3
Naphthalene	ND	4.6	0.9
1,2,3-Trichlorobenzene	ND	4.6	0.5
tert-Butyl Alcohol (TBA)	ND	92	12

Surrogate	%REC	Limits
Dibromofluoromethane	117	79-127
1,2-Dichloroethane-d4	114	73-139
Toluene-d8	101	80-120
Bromofluorobenzene	107	80-127

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #:	303024	Location:	pge s-081
Client:	McCampbell Analytical	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	205BS-090718-BR2	Diln Fac:	0.9107
Lab ID:	303024-002	Batch#:	263288
Matrix:	Soil	Sampled:	09/07/18
Units:	ug/Kg	Received:	09/07/18
Basis:	as received	Analyzed:	09/09/18

Analyte	Result	RL	MDL
Freon 12	ND	9.1	0.5
Chloromethane	ND	9.1	1.2
Vinyl Chloride	ND	9.1	0.8
Bromomethane	ND	9.1	1.1
Chloroethane	ND	9.1	0.5
Trichlorofluoromethane	ND	4.6	0.6
Acetone	ND	18	3.0
Freon 113	ND	4.6	0.4
1,1-Dichloroethene	ND	4.6	0.9
Methylene Chloride	ND	18	1.0
Carbon Disulfide	ND	4.6	0.8
MTBE	ND	4.6	0.9
trans-1,2-Dichloroethene	ND	4.6	0.8
Vinyl Acetate	ND	46	0.7
1,1-Dichloroethane	ND	4.6	1.0
2-Butanone	ND	9.1	1.2
cis-1,2-Dichloroethene	ND	4.6	0.8
2,2-Dichloropropane	ND	4.6	1.0
Chloroform	ND	4.6	1.2
Bromochloromethane	ND	4.6	0.9
1,1,1-Trichloroethane	ND	4.6	0.7
1,1-Dichloropropene	ND	4.6	0.6
Carbon Tetrachloride	ND	4.6	0.4
1,2-Dichloroethane	ND	4.6	0.8
Benzene	ND	4.6	0.8
Trichloroethene	ND	4.6	0.8
1,2-Dichloropropane	ND	4.6	0.7
Bromodichloromethane	ND	4.6	0.8
Dibromomethane	ND	4.6	0.7
4-Methyl-2-Pentanone	ND	9.1	0.9
cis-1,3-Dichloropropene	ND	4.6	0.6
Toluene	ND	4.6	0.6
trans-1,3-Dichloropropene	ND	4.6	0.6
1,1,2-Trichloroethane	ND	4.6	0.6
2-Hexanone	ND	9.1	0.8
1,3-Dichloropropane	ND	4.6	0.8
Tetrachloroethene	ND	4.6	0.5
Dibromochloromethane	ND	4.6	0.5
1,2-Dibromoethane	ND	4.6	0.6
Chlorobenzene	ND	4.6	0.6
1,1,1,2-Tetrachloroethane	ND	4.6	0.6
Ethylbenzene	ND	4.6	0.6
m,p-Xylenes	ND	4.6	1.1
o-Xylene	ND	4.6	0.6
Styrene	ND	4.6	0.5
Bromoform	ND	4.6	0.4
Isopropylbenzene	ND	4.6	0.5
1,1,2,2-Tetrachloroethane	ND	4.6	0.4
1,2,3-Trichloropropane	ND	4.6	0.5
Propylbenzene	ND	4.6	0.4
Bromobenzene	ND	4.6	0.5
1,3,5-Trimethylbenzene	ND	4.6	0.5
2-Chlorotoluene	ND	4.6	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #:	303024	Location:	pge s-081
Client:	McC Campbell Analytical	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	205BS-090718-BR2	Diln Fac:	0.9107
Lab ID:	303024-002	Batch#:	263288
Matrix:	Soil	Sampled:	09/07/18
Units:	ug/Kg	Received:	09/07/18
Basis:	as received	Analyzed:	09/09/18

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	4.6	0.6
tert-Butylbenzene	ND	4.6	0.4
1,2,4-Trimethylbenzene	ND	4.6	0.5
sec-Butylbenzene	ND	4.6	0.4
para-Isopropyl Toluene	ND	4.6	0.4
1,3-Dichlorobenzene	ND	4.6	0.4
1,4-Dichlorobenzene	ND	4.6	0.5
n-Butylbenzene	ND	4.6	0.3
1,2-Dichlorobenzene	ND	4.6	0.5
1,2-Dibromo-3-Chloropropane	ND	4.6	0.9
1,2,4-Trichlorobenzene	ND	4.6	0.5
Hexachlorobutadiene	ND	4.6	0.3
Naphthalene	ND	4.6	0.9
1,2,3-Trichlorobenzene	ND	4.6	0.5
tert-Butyl Alcohol (TBA)	ND	91	12

Surrogate	%REC	Limits
Dibromofluoromethane	119	79-127
1,2-Dichloroethane-d4	115	73-139
Toluene-d8	101	80-120
Bromofluorobenzene	105	80-127

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	303024	Location:	pge s-081
Client:	McC Campbell Analytical	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	263288
Units:	ug/Kg	Analyzed:	09/09/18
Diln Fac:	1.000		

Type: BS Lab ID: QC946836

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	29.24	117	68-140
Benzene	25.00	26.41	106	74-123
Trichloroethene	25.00	26.36	105	72-125
Toluene	25.00	26.07	104	73-121
Chlorobenzene	25.00	26.77	107	76-123

Surrogate	%REC	Limits
Dibromofluoromethane	107	79-127
1,2-Dichloroethane-d4	106	73-139
Toluene-d8	102	80-120
Bromofluorobenzene	101	80-127

Type: BSD Lab ID: QC946837

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	34.00	136	68-140	15	25
Benzene	25.00	28.87	115	74-123	9	22
Trichloroethene	25.00	29.14	117	72-125	10	23
Toluene	25.00	28.88	116	73-121	10	22
Chlorobenzene	25.00	29.65	119	76-123	10	20

Surrogate	%REC	Limits
Dibromofluoromethane	109	79-127
1,2-Dichloroethane-d4	101	73-139
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-127

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	303024	Location:	pge s-081
Client:	McCampbell Analytical	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC946838	Batch#:	263288
Matrix:	Soil	Analyzed:	09/09/18
Units:	ug/Kg		

Analyte	Result	RL	MDL
Freon 12	ND	10	0.5
Chloromethane	ND	10	1.3
Vinyl Chloride	ND	10	0.9
Bromomethane	ND	10	1.2
Chloroethane	ND	10	0.5
Trichlorofluoromethane	ND	5.0	0.7
Acetone	ND	20	3.3
Freon 113	ND	5.0	0.4
1,1-Dichloroethene	ND	5.0	0.9
Methylene Chloride	ND	20	1.1
Carbon Disulfide	ND	5.0	0.9
MTBE	ND	5.0	1.0
trans-1,2-Dichloroethene	ND	5.0	0.8
Vinyl Acetate	ND	50	0.7
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	10	1.3
cis-1,2-Dichloroethene	ND	5.0	0.9
2,2-Dichloropropane	ND	5.0	1.1
Chloroform	ND	5.0	1.3
Bromochloromethane	ND	5.0	0.9
1,1,1-Trichloroethane	ND	5.0	0.8
1,1-Dichloropropene	ND	5.0	0.6
Carbon Tetrachloride	ND	5.0	0.5
1,2-Dichloroethane	ND	5.0	0.9
Benzene	ND	5.0	0.9
Trichloroethene	ND	5.0	0.8
1,2-Dichloropropane	ND	5.0	0.8
Bromodichloromethane	ND	5.0	0.8
Dibromomethane	ND	5.0	0.8
4-Methyl-2-Pentanone	ND	10	1.0
cis-1,3-Dichloropropene	ND	5.0	0.6
Toluene	ND	5.0	0.7
trans-1,3-Dichloropropene	ND	5.0	0.6
1,1,2-Trichloroethane	ND	5.0	0.6
2-Hexanone	ND	10	0.9
1,3-Dichloropropane	ND	5.0	0.8
Tetrachloroethene	ND	5.0	0.5
Dibromochloromethane	ND	5.0	0.5
1,2-Dibromoethane	ND	5.0	0.7
Chlorobenzene	ND	5.0	0.7
1,1,1,2-Tetrachloroethane	ND	5.0	0.6
Ethylbenzene	ND	5.0	0.7
m,p-Xylenes	ND	5.0	1.3
o-Xylene	ND	5.0	0.6
Styrene	ND	5.0	0.6
Bromoform	ND	5.0	0.4
Isopropylbenzene	ND	5.0	0.5
1,1,2,2-Tetrachloroethane	ND	5.0	0.4
1,2,3-Trichloropropane	ND	5.0	0.6
Propylbenzene	ND	5.0	0.4
Bromobenzene	ND	5.0	0.5
1,3,5-Trimethylbenzene	ND	5.0	0.6
2-Chlorotoluene	ND	5.0	0.7

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	303024	Location:	pge s-081
Client:	McC Campbell Analytical	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC946838	Batch#:	263288
Matrix:	Soil	Analyzed:	09/09/18
Units:	ug/Kg		

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	5.0	0.6
tert-Butylbenzene	ND	5.0	0.4
1,2,4-Trimethylbenzene	ND	5.0	0.6
sec-Butylbenzene	ND	5.0	0.4
para-Isopropyl Toluene	ND	5.0	0.4
1,3-Dichlorobenzene	ND	5.0	0.4
1,4-Dichlorobenzene	ND	5.0	0.5
n-Butylbenzene	ND	5.0	0.4
1,2-Dichlorobenzene	ND	5.0	0.5
1,2-Dibromo-3-Chloropropane	ND	5.0	0.9
1,2,4-Trichlorobenzene	ND	5.0	0.5
Hexachlorobutadiene	ND	5.0	0.3
Naphthalene	ND	5.0	1.0
1,2,3-Trichlorobenzene	ND	5.0	0.5
tert-Butyl Alcohol (TBA)	ND	100	13

Surrogate	%REC	Limits
Dibromofluoromethane	106	79-127
1,2-Dichloroethane-d4	106	73-139
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-127

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit



EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577
Phone/Fax: (510) 895-3675 / (510) 895-3680
<http://www.EMSL.com> / sanleandrolab@emsl.com

EMSL Order: 091819491
Customer ID: ETSV78
Customer PO: PSC-1816B
Project ID: PSC-1816B

Attention: Kody Khodayari
Environmental Technical Services, Inc.
7950 Dublin Boulevard, Suite 309
Dublin, CA 94568

Phone: (925) 364-7297
Fax: (925) 361-5618
Received: 09/07/2018 1:00 PM
Analysis Date: 09/09/2018
Collected: 09/07/2018

Project: PSC-1816B - PSC - HANSON AGGREGATE CLAYTON QUARRY AT AGGREGATE PINE HOLLOW RD.,
CONCORD, CA (PSC-1816B)

Test Report: PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB 435 Prep (Milling). Level B for 0.1% Target Analytical Sensitivity

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
205BS-090718-BR1 a 091819491-0001	REPRESENTATIVE 4-POINT COMPOSITE OF 3/4-IN. CLASS 2 BASE ROCK STOCKPILE - LEVEL 1 STOCKPILE AT 37.930363°N , 121.957892°W	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
205BS-090718-BR2 091819491-0002	REPRESENTATIVE 4-POINT COMPOSITE OF 3-IN. MINUS (1-1/2-IN.) BASE ROCK STOCKPILE - LEVEL 3 STOCKPILE AT 37.928546°N , 121.958161°W	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Shane Heisser (2)

Matthew Batongbacal
or other approved signatory

This report relates only to the samples listed above and may not be reproduced except in full, without EMSL's written approval. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMSL is not responsible for sample collection activities or method limitations. Some samples may contain asbestos fibers below the resolution limit of PLM. EMSL recommends that samples reported as none detected or less than the limit of detection undergo additional analysis via TEM. Unless otherwise noted, the results in this report have not been blank corrected. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc San Leandro, CA

Report amended: 09/10/2018 10:14:34 Replaces initial report from: 09/09/2018 15:27:45 Reason Code: Data Entry-Change to Project

Environmental Technical Services, Inc.

7950 Dublin Boulevard, Suite 309, Dublin, CA 94568

Phone: (925) 364-7297 – Fax: (925) 361-5618

#091819491

BULK SAMPLE DATA SHEET

Date: 9/7/18

Page 1 of 1

Client: PSC H&H Heidelberg Cement Group					Inspector Name: <u>Matt Reed</u>				
Project Location: Hanson Aggregate Clayton Quarry at Aggregate Pine Hollow Rd., Concord, CA					Project No.: <u>PSC-1816B</u>				
Analytical Specs: (Underline Type of Analysis) AA - PLM - TEM - <u>Other</u> (See Comments)						Rush - 24 Hr - <u>48 Hr</u> - 72 hr		Call- <u>Email</u>	
Sample #	Material	Location	Quantity/ Thickness	Cond.	Fri.	Comments:			
						Cont.	Vib.	Air Er.	And/or Other
<u>205BS-090718- BR1a</u>	Representative 4-Point Composite of 3/4-in. Class 2 Base Rock Stockpile	Level 1 Stockpile at 37.930363°N, 121.957892°W	≈ 800-cy Pile	_____					CARB-435 Lvl. B 48-hr
" - <u>BR2</u>	Representative 4-Point Composite of 3-in. Minus (1-1/2-in.) Base Rock Stockpile	Level 3, a stockpile at 37.928546°N, 121.958161°W	≈ 700-cy Pile	_____					
Abbreviations: Cond. = Condition; G = Good, D = Damaged, SD = Significantly Damaged Fri. = Friability; N = Not Friable, L = Low, M = Medium, H = High, Cont. = Contact Potential; Vib. = Vibration; Air Er. = Air Erosion; N = None, L = Low, M = Moderate, H = High									

Relinquished By: *Matt Reed*
Received By: *Ph...*

Name (printed) & Company: Matt Reed, ETS
Name (printed) & Company: Ph...

Date/Time: 9/7/18 @ 12:45
Date/Time: 9/7/18 1pm