APPENDIX L

Water Well Sampling and Well Destruction

AEI Consultants
Environmental & Engineering Services

April 9, 2018

Ms. Serena Ip
MidPen Housing Corporation
303 Vintage Park Drive, Suite 250
Foster City, California 94404

Re: Water Well Sampling and Well Destruction
Project Number 350428
Cypress Point Development
Carlos and Sierra Streets
Moss Beach, San Mateo County, California 94038

Dear Ms. Ip:

This report presents the results of the **Water Well Sampling and Well Destruction** activities performed by AEI Consultants (AEI) for the Cypress Point development project, located near the intersection of Carlos and Sierra Streets in Moss Beach, San Mateo County, California (the "Site"). The project was conducted in accordance with the conclusions and recommendations presented in AEI's *Additional Subsurface Investigation and Water Well Evaluation Report* dated February 20, 2018. Information regarding the previous investigation results, field activities, analytical results, conclusions, and recommendations is provided in the following sections of this report.

1.0 PREVIOUS INVESTIGATION RESULTS

In November 2015, AEI conducted a *Phase I Environmental Site Assessment (ESA)* at the Site. During the file review, it was found that two (2) domestic water supply wells had been installed at the Site in 1986. Limited regulatory agency records that were obtained from San Mateo County Environmental Health Services (SMCEHS) for the wells are provided in Appendix A.

In December 2015, AEI conducted a *Limited Phase II Subsurface Investigation* with the results presented in a report dated February 15, 2016. During a site reconnaissance for the investigation, one (1) of the wells was found within a vegetated area near the northern property boundary. The wellhead consisted of a rusted, welded steel cover that was secured within a rectangular-shape concrete pad. SMCEHS was contacted to gather more information about the well(s) during the investigation; however, no additional information had been provided by SMCEHS at that time. The other well was not found during the reconnaissance. It was unknown if either well had been properly abandoned in accordance with SMCEHS regulations. No well construction details were available for review other than the limited regulatory agency records gathered during the *Phase I ESA*.

As presented in Appendix A, regulatory agency records show that a San Mateo County Department of Public Health and Welfare permit (Permit No. W-43-86) had been issued to the California School

Employee Association (property owner) for the installation and construction of the well(s) in May 1986. The name of the well owner on the permit was listed as Farallon Vista Associates. In June 1986, a flow test was conducted by H.A.M. Drilling, Inc. (HAM) at one (1) of the wells. Their Well Yield Report Information form for the well showed a total depth of 400 feet. The Well Yield Report also showed the DWR Water Well Drillers Report Number than the permit number shown under the County May 1986 permit. The Well Yield Report showed that the standing water well and static water level (assumed to be measured upon completion of flow testing) were measured at depths of 35 feet and 168 feet deep, respectively. The pump for the flow test was set at a depth of 390 feet. The flow test was conducted over an approximate 3-hour period. Flow (pump) rates during testing ranged between 2 and 5 gallons per minute. At the end of the 3-hour period, the drawdown of the water level was measured at 168 feet. After the flow testing was completed, a recovery test was performed for an approximate 20-minute period. After this period ceased, the water level recovered to the 160-foot depth. In July 1988, water quality testing for bacteriology and chemistry purposes also was performed.

In December 1990, as shown on a Septic and Well Check-Off List, Farallon Vista Associates indicated that the two (2) domestic water supply wells had been installed under one (1) permit, and that both wells would be repaired "so that aquifers were adequately protected." In January 1991, also shown on the same Septic and Well Check-Off List, Farallon Vista Associates indicated that the "upper well" had been "sealed with welded steel" and the "lower well" had been "sealed flush with the well pad with a bolted steel plate." During AEI's December 2015 site reconnaissance, it was believed that the "upper well", rather than the "lower well", had been found.

In October 2017, the "upper well" was inspected by Wilkinson Well and Pump of Half Moon Bay, California (Wilkinson) during AEI's *Additional Subsurface Investigation and Water Well Evaluation*. The area around the wellhead was observed to be covered with tree branches and vegetative debris. It was also observed that the well cover had been removed since the time of AEI's *Limited Phase II Subsurface Investigation*. The well was observed to consist of an outer steel casing that was lined with an inner 5-inch diameter polyvinyl chloride (PVC) casing. Wilkinson attempted to measure the groundwater and total well depths. However, because of an obstruction encountered at the 13.3-foot depth, the groundwater depth and well depth measurements could not be obtained. The vertical extent of the obstruction below the 13.3-foot depth also could not be measured. Wilkinson also observed that a section of broken or cracked well casing was present at the 5-foot depth. Upon inspection, it was assumed that debris had been poured into the well after the cover had been removed.

2.0 FIELD ACTIVITIES

Field activities for the groundwater sampling and well destruction are described in the following sections of this report.

2.1 Health and Safety Plan

A site-specific health and safety plan was prepared, reviewed by onsite personnel, and kept onsite for the duration of the fieldwork.

2.2 Permitting and Utility Clearance

A drilling permit was obtained from the SMCEHS for the well destruction. A copy of the drilling permit is provided in Appendix B.

Prior to well destruction activities, the property boundaries were marked on the ground surface with white paint. Upon marking, Underground Services Alert (USA) North was contacted, who, in turn, notified subscribing utility companies of the planned well destruction work for underground utility locations to be marked along the ground surface around the existing well. A utility clearance was conducted by Ground Penetrating Radar Systems, Inc. (GPRS) of San Jose, California under subcontract to AEI on February 21, 2018. No underground utilities were found to be present around the existing well.

2.3 Well Destruction and Removal of Obstruction

Well destruction commenced on February 21, 2018 upon completion of the utility clearance. Well destruction was performed by a C-57 licensed drilling company, Cascade Drilling, Inc. of West Sacramento, California under subcontract to AEI. Well destruction activities were supervised by an experienced field geologist under the oversight of an AEI State of California-licensed Certified Engineering Geologist.

Prior to well destruction, the wellhead was opened to remove the obstruction from the 13.3-foot depth using a well development rig. A 4-inch diameter drilling rod was lowered into casing to remove and/or push through the obstruction. However, it was discovered that the length of the obstruction was quite extensive and could not be removed. Refusal was encountered at the 47-foot depth. SMCEHS inspected the well destruction procedures and further required that the obstruction be removed. At that time, the depth to groundwater was measured at 45.37 feet below the top of well casing.

Well destruction activities resumed on March 6, 2018. Cascade mobilized a track-mounted, sonic drilling rig to the Site to remove the obstruction and complete the well destruction. Upon removal of the obstruction, the inside of the well casing was further reamed out to the 350-foot depth. Materials associated with obstruction and removed from the well casing included pea gravel, tree debris, miscellaneous trash, and glass bottle fragments. At the 350-foot depth, another obstruction was encountered, which included an older submersible pump, that appeared to be left in place from the time the well was installed. Metal fragments and copper wiring were removed, followed by drilling refusal encountered when attempting to drill through the pump at that depth. Because of the depth of the pump and associated drilling refusal, SMCEHS was contacted for further direction. SMCEHS approved destruction of the well beginning at the 350-foot depth, instead of continuing to drill downward to the 400-foot depth.

2.4 Groundwater Sampling

Groundwater sampling was performed prior to well destruction. Prior to sampling, the well was purged with a portable submersible pump. The pump intake was positioned at an approximate depth of 120 feet below the top of well casing. The depth to groundwater prior to purging was

approximately 54.30 feet below the top of casing. During purging, only 55 gallons could be removed due to the slow purge rate of the pump. The total volume of water removed during was significantly less than the total volume of standing water inside the well casing noted prior to sampling.

Upon purging, a groundwater sample was obtained from inside the sonic drilling rods with a clean, disposable bailer. Upon collection, the clarity of the groundwater water sample was observed to be somewhat turbid and cloudy with a discernible sheen on top of the water surface inside the bailer. The sample was transferred into appropriate, laboratory-supplied, sample containers [i.e., 40-ml glass vials preserved with hydrochloric acid (HCl)]. The 40-ml glass vials were sealed so that no headspace or air bubbles were visible within the containers upon filling.

After collection, the bottles were labeled with the project name, project number, boring number, sample depth, and sampling date/time of sampling. After labelling, the samples were placed into an insulated, chilled ice chest containing crush ice for transport to the analytical laboratory. Chain-of-custody documentation was prepared and accompanied the groundwater sample bottles to the analytical laboratory.

2.5 Completion of Well Destruction

On March 7, 2018, the well was destroyed by the backfilling and placement of neat cement grout inside the well casing using tremie methods. Prior to commencing well destruction, Ms. Allison Fang, the SMCEHS inspector, visited the Site and provided AEI with a State of California Department of Water Resources (DWR) Water Well Drillers Report (No. 149554) for the well. This information had not been shared with AEI, when requested on, at least, two separate occasions, prior to the start of this project and during previous investigations. The DWR Water Well Drillers Report confirmed that the owner of the well was Farallon Vista Association and that the well had been installed during the period from June 11 through 18, 1986. The Report also confirmed the 400-foot depth of the well. The diameter of the boring for the well was 10 inches. The well was screened from the 80- to 400-foot depth with a 1/8-inch slot size, and gravel-packed (filter-packed) with 3/8-inch diameter pea gravel from the 50- to 400-foot depth. A sanitary seal for the well was installed to the 50-foot depth. The depth of first-encountered groundwater was 175 feet. A copy of the DWR Water Well Drillers Report is provided in Appendix C.

During well destruction, approximately 1,100 gallons of neat cement were tremie-grouted into the well casing. Following grouting, the top of the well casing was cut below grade and the concrete pad at the wellhead was removed. The top of the neat cement grout was flush with the surrounding ground surface. Well destruction activities were inspected by Ms. Allison Fang of SMCEHS. A copy of the Well Completion Report documenting the destruction of the water supply well is provided in Appendix D.

3.0 ANALYTICAL RESULTS

The groundwater sample was transported under appropriate chain-of-custody documentation to a State of California-certified laboratory, McCampbell Analytical, Inc. of Pittsburg, California. The sample was analyzed for total petroleum hydrocarbons quantified as gasoline (TPH-g), as diesel

(TPH-d), and as motor oil (TPH-mo) United States Environmental Protection Agency (EPA) Method 8015M and volatile organic compounds (VOCs) by EPA Method 8260B. Chain-of-custody documentation and the laboratory analytical report are provided in Appendix E.

Groundwater analytical results showed the presence of TPHs and VOCs. TPH-g was detected at a concentration of 100 micrograms per liter (µg/L), and TPH-d and TPH-mo were detected at concentrations of 20,000 and 60,000 µg/L, respectively. The TPH-g concentration was found not to exceed applicable San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) except that it was found to exceed the RWQCB ESL odor nuisance level for drinking water. The TPH-d and TPH-mo concentrations were found to exceed applicable RWQCB ESLs.

VOCs, including acetone, 2-butanone (methyl ethyl ketone), naphthalene, toluene, and 1,2,4-trimethylbenzene, were detected at concentrations between 0.81 and 13 µg/L. None of the detected VOCs were found to exceed their applicable RWQCB ESLs except for naphthalene, which was found at a concentration (1.9 µg/L) slightly above its RWQCB ESLs for direct exposure human health risk levels, including Maximum Contaminant Level (MCL) Priority and human health risk based only levels.

To further confirm the TPH analytical results, the sample was re-analyzed by EPA Method 8015M with a silica gel cleanup. This analytical approach was utilized to assess whether the TPH results from the initial analyses are representative of petroleum-derived substances originating from the surrounding environment, such as naturally-occurring organic materials, etc. Analytical results showed that the TPH concentrations were the same as those for the initial analyses with the exception of the TPH-mo detected at a slightly lower concentration of 55,000 µg/L. The results of the initial analyses and silica gel analyses also showed that the TPH concentrations were within the same order of magnitude.

The TPH analytical results also were compared with the laboratory chromatograms for the surrogate standard used for diesel and motor oil during the laboratory analyses and actual analytical results. Upon review of the chromatograms, it was noted that the signatures (highest peaks or responses) on both chromatograms were virtually the same (each measured the same at 18.4 minutes). In summary, the analytical results do not appear to be representative of petroleum-derived substances originating from the surrounding environment.

4.0 CONCLUSIONS AND RECOMMENDATIONS

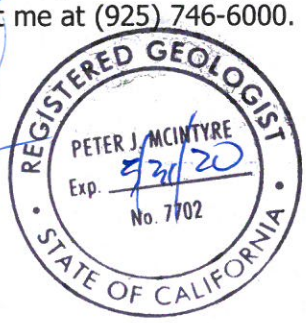
Based upon the results of these activities performed at the Site, the well was destroyed in accordance with SMCEHS permitting requirements. Confirmation of the well destruction permit closeout by SMCEHS is provided in Appendix F.

With respect to the groundwater analytical results, it appears that the detected concentrations of TPH-d and TPH-mo are attributed to the older submersible pump that had been left in the well for greater than a 30-year period. Older submersible pumps are known to have seals, bearings, and oil-filled capacitors that contain petroleum-based greases, oil and lubricants, all of which can leak and fail over time.

Upon recognizing such features in older submersible pumps, the TPH concentrations in this well appear to be associated with an older, leaky submersible pump. Furthermore, during sampling, it was noted that the groundwater sample was somewhat turbid. A representative groundwater sample could not be collected at the time of sampling because the standing water inside the well casing could not be easily removed due to the slow purge rate of the pump.

On the basis of this information, no further investigation or remedial action regarding the well destruction is recommended at this time. If you have any questions or comments regarding this report, please do not hesitate to contact me at (925) 746-6000.

Sincerely,



Peter McIntyre, P.G. (7702)
Executive Vice President
AEI Consultants
2500 Camino Diablo
Walnut Creek, California 94597
Phone: (925) 746-6000
pmcintyre@aeiconsultants.com

Enclosures: Appendix A, SMCEHS Regulatory Agency Records
Appendix B, SMCEHS Drilling Permit
Appendix C, DWR Water Well Drillers Report
Appendix D, DWR Well Completion Report
Appendix E, Chain-of-Custody Documentation, Certified Analytical Report, and Laboratory Chromatograms
Appendix F, SMCEHS Confirmation of Well Destruction Permit Closeout

APPENDIX A

SMCEHS REGULATORY AGENCY RECORDS

County Review Draft

OFFICE OF ENVIRONMENTAL HEALTH
SAN MATEO COUNTY DEPARTMENT OF HEALTH SERVICES

WELL CONSTRUCTION APPLICATION

COUNTY GOVERNMENT CENTER
590 HAMILTON STREET
REDWOOD CITY, CALIF. 94063
(415) 363-4305

DATE
PERMIT ISSUED: _____
PERMIT NO.: _____
FEE: #135.00
RECEIPT NO.: 41342
ASSIGNED TO: R.W
CK# 1042

TO BE COMPLETED BY OWNER AND DRILLER

Property Owner:	Well Owner (if different):	Drilling Co.:
California School Employee Association	Farallon Vista Associates	H.A.M. Drilling
Address:	**Address of Well Site:**	**Driller's Contractor's License Number:**
P.O. Box 640	Carlos and Lincoln Ave.	#426664
City, State, Zip:	**City, State, Zip:**	**Address:**
San Jose, CA. 95106	Montara, CA.	1538 Willow Pass Road
Telephone No.:	**Telephone No.:**	**City, State, Zip:**
(408) 263-8000	(415) 941-6548	Pittsburg, CA. 94565
Assessor's Parcel No. of Well Site:	**Owner's /Consultant's Well No.:**	**Telephone No.:**
037-02-022-04-02-08/A	—	(415) 432-9885

Estimate depth of completed well: ☐ Less than 50 feet ☑ 50 to 300 feet ☐ Over 300 feet

Purpose of Well: ☑ Domestic ☐ Municipal/Industrial ☐ Agricultural * ☐ Monitoring ☐ Cathodic Protection

* Monitoring wells are those constructed for the purpose of obtaining repetitive water level measurements and/or repetitive water samples for analyses. This includes wells constructed for general exploration and investigation purposes as well as those to be constructed in conformance with the Hazardous Materials Storage Permit Ordinance for site-specific groundwater monitoring of existing underground hazardous materials storage tanks.

THIS SECTION TO BE COMPLETED IF THIS APPLICATION IS FOR A MONITORING WELL

Purpose of Monitoring Well: ☐ To comply with City or County Hazardous Materials Ordinance ☐ Exploration studies

☐ Other (specify): _____

Name of Business: _____ Business License No.: _____

If proposed well is to meet compliance with a Hazardous Materials Storage Permit Ordinance has the City or County been contacted? ☐ Yes ☐ No

If yes, give name of City or County

Consultant's Name (company)

Address

City, State, Zip

( ) _____
Area Code Telephone No.

Type of monitoring device: ☐ Groundwater ☐ Vadose
Monitoring well use: ☐ Depth ☐ Quality ☐ Depth and Quality
Vadose device installation: ☐ Vapor ☐ Interface ☐ Suction Lysimeter

SIGNATURE OF RESPONSIBLE PROFESSIONAL

REGISTRATION NO. CIVIL ENGINEER — OR — CERTIFICATE NO. ENGINEERING GEOLOGIST

TOPOGRAPHIC FEATURES

Is well to be constructed: ☐ In a public sidewalk ☐ In a public road ☐ On public property ☑ On private property

Within 50 feet of the top of a creek bank ☐ Yes ☑ No
Within 50 feet of any existing well ☐ Yes ☑ No
Within 50 feet of a sanitary sewer ☐ Yes ☑ No
Within 150 feet of a cesspool or seepage pit ☐ Yes ☑ No
Within 100 feet of a pit privy, septic tank, leachfield ☐ Yes ☑ No

CERTIFICATION BY WELL OWNER/AGENT AND DRILLER/AGENT:

I certify that the information given above is correct to the best of my knowledge. I certify that the well will be constructed in compliance with the conditions of this permit, the San Mateo Co. Ordinance, and, if applicable, the Hazardous Materials Storage Permit Ordinance of the County of San Mateo. It is my responsibility as the well owner to notify the County of any changes in the purpose of this well from that which is indicated on this application form.

Partner
WELL OWNER/AGENT DATE

SIGNATURE OF DRILLER/AGENT DATE

☑ I certify that in the performance of the work for which this permit is being issued I shall not employ any person in any manner so as to become subject to the Workmen's Compensation laws of California.
☑ I certify that I have a valid Workmen's Compensation Coverage.

IMPORTANT: A minimum 24-hour notice must be given to Environmental Health prior to drilling.

OVER

 WELL PERMIT NO.: _____

WELL CONSTRUCTION APPLICATION

Based on information on the application and attachment(s) hereto (if any) and subject to approval noted below, permission is hereby granted to construct (drill) the described well. Permission to start may be withheld until a field check verifies all statements made on application by Permittee and is also subject to the "General" and "Special" Conditions stated below.

WELL LOCATION (Draw Accurately)
Recommend using Assessor's Map

1. Sketch well location to scale, show dimension to nearest foot.
2. Show a minimum of two dimensions at right angles. Dimensions shall be from the centerline of the closest named streets, roads or highways.

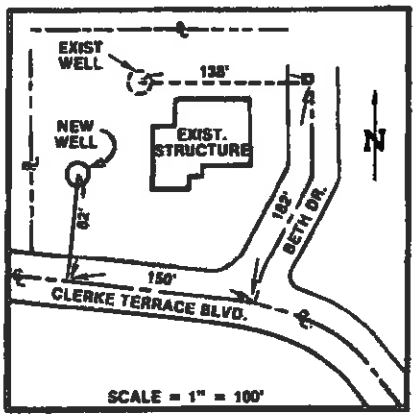
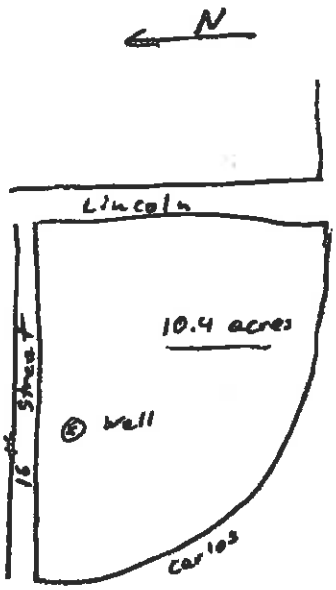


FIGURE 1



N

Scale: 1" = _____

GENERAL CONDITIONS:

A. Construction under this Permit is subject to any instructions by Health Department representative relative to the "Standards for the Construction of Wells in San Mateo County".
B. Permit may be voided before work begins if field check reveals any misrepresentation under "well location" or "Topographic Features" on application.
C. This Permit is valid only for the purpose specified herein. No change in construction procedure as prescribed on attached Standards and in Special Conditions below will be allowed except upon written permission of the County.
D. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall 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 the exercise of this Permit including, but not limited to property damage, personal injury and wrongful death.
E. Compliance with "CAL/OSHA" California Labor Code Section 6300 (and following) is required.
F. Water quality and production from all wells to be used for domestic water supply must be approved by the Office of Environment Health.
G. Permit will be automatically cancelled if not exercised or if extension is not requested by Permittee within 90 calendar days of above date.
H. Driller is to complete State DWR Form 188 and mail original to San Mateo County Health Services within 30 days of completion of well construction.
I. For the construction of water producing wells, a Permittee must be a licensed water well drilling contractor unless the work is to be done by the landowner or employees of the landowner. (See Business & Professions Code § 7026.3, 7028).
J. For monitoring wells refer to State Water Well Standards 74-81. Dry holes shall be backfilled within one week of drilling. Well destruction shall be done in accordance with State and County Standards.
K. Each well site requires a separate Well Construction Application, and permit.

SPECIAL CONDITIONS:

APPROVED: _____ DATE: 5/16/86

San Mat[illegible] County Department of Public He[illegible] & Welfare

590 Hamilton Street, Redwood City, California 94063

No. [illegible]

DOMESTIC WELL PERMIT

Permit to construct or install WELL

s

At Carlos and Lincoln Ave. Montara, Ca. 94037

Parcel No. 037-02-022-04-02-08/A

This certifies that approval has been granted to:

California School Employee Association
P.O. Box 640
San Jose, Ca. 95106

Contractor B.A.N. Drilling

B.A.N.Drilling
2338 Willow Pass Road
Pittsburg, Ca. 94565

Date 5/20/83

Fee paid 135.00

5/10/83

Lot No.

Block No.

Ordinance No.

Environmental Health
San Mateo County

For the Director
Department of Public Health and Welfare

PERMIT ISSUED BY RICHARD WILSON

Public Health Engineer

Permit shall be void if construction is not started within 90 days of date of this permit.

5720-21

THIS PERMIT IS NON-TRANSFERABLE

H.A.M. Drilling Inc.

2160 Ann Street
Concord, CA 94520
Lic. #426664

(415) 689-4004
(707) 448-4645

(415) 685-1082
(415) 432-9331

WELL YIELD REPORT INFORMATION

OWNERS NAME	Farrallon Vista Assn.
PERMIT NUMBER IF KNOWN	DRW #149554
DATE OF TEST	June 18, 1986
TOTAL DEPTH OF WELL	400 ft.
STANDING WATER LEVEL	35 ft.
STATIC WATER LEVEL	168 ft.
PUMP SET AT	390 ft.
TIME TEST BEGAN	2:30p.m.

TIME	DRAWDOWN	G.P.M.	TIME	DRAWDOWN	G.P.M.
2:30p	35'	5			
3:30	100'	5			
4:00	93'	5			
4:58	160'	3			
5:05	165'	3			
5:30	168'	2			

Recovery time 7:00p.m. 165' 7:17p.m. 160'

I CERTIFY THAT THE ABOVE RESULTS ARE CORRECT FOR THE PUMP TEST AS PREFORMED ON June 18, 1986.

Joyce M Perry
H.A.M. DRILLING, INC. REPRESENTATIVE

June 19, 1986
DATE REPORT COMPLETED

"YOU'VE TRIED THE REST, NOW TRY THE BEST"

S&W
338-3053

SOIL AND WATER LABORATORY
14072 W. PARK AVENUE
BOULDER CREEK, CA 95006

From
Darroll Weddell
20 Marie Ct.
Half Moon Bay, Ca. 94019

TIME | DATE 7/15/__ | REPORT NO. 190 8

TYPE OF SAMPLE: Well Farallone Vista #1

ANALYSES DESIRED AND REMARKS: Water Quality 7/9/88

Bacteriology	MPN	per 100 ml	
	M F	per 100 ml	
Chemistry	Iron	ppm	.125
	Manganese	ppm	.06
	Chloride	ppm	241
	Nitrate	ppm	20
	Total Dissolved Solids	ppm	
	Conductivity	μ mhos/cm	880

Initial [signature]

30gpm?

415-343-5795

JAMES S. MARSH
CONSULTING CIVIL ENGINEER

1-11-89 Gave Marsh name of Guntren 056-104-351 & 60 gpm.

20 WEST THIRD AVE., #302 SAN MATEO, CA 94402

SEPTIC AND WELL CHECK-OFF LIST

Building Site Location: Carlos and Lincoln Ave. Montara, Ca. 94037

Applicant: Ca. School Employee Association

A P Number: 037-[redacted]-022-04-02-08/A

X Application Form

____ Fee

____ Two Plot Plans

____ Water Company Letter

____ Well Report

____ Chem. Analysis

____ Bact. Analysis

____ Pump Test

____ Special Conditions

ISSUE WELL PERMIT
DATE _____

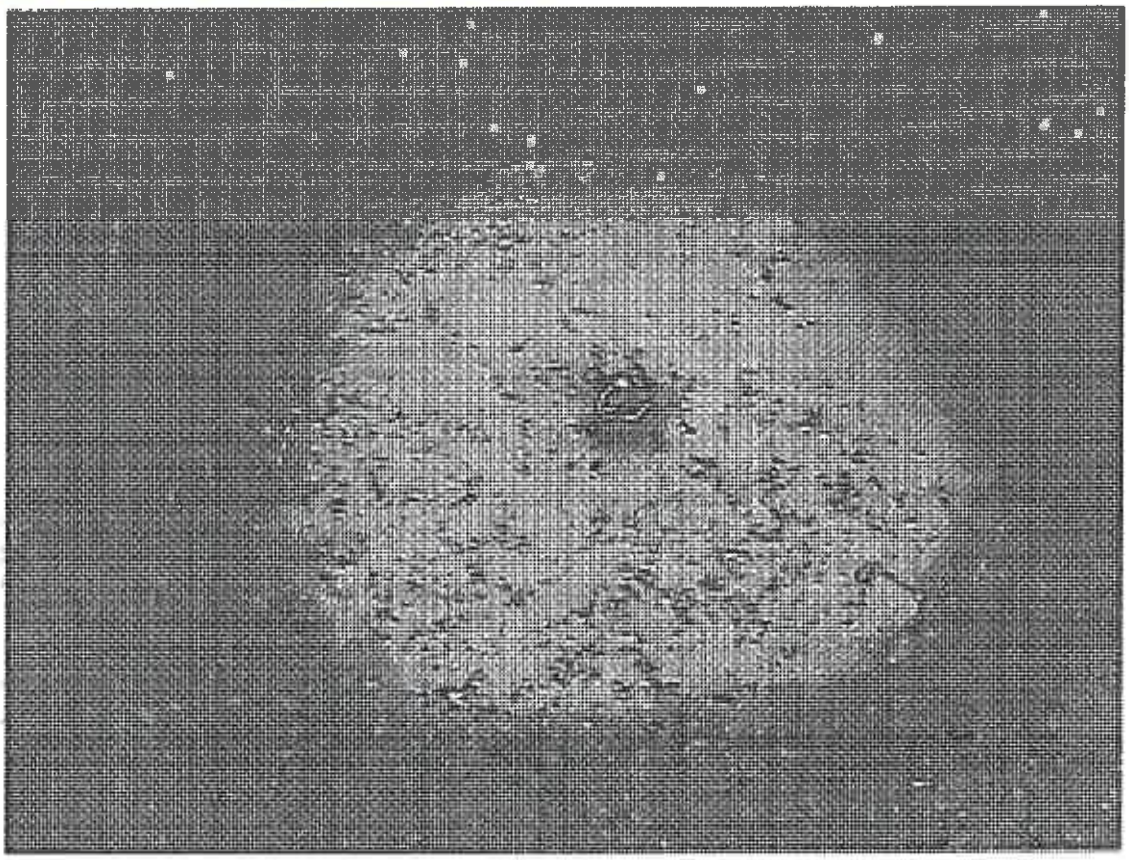
ISSUE SEPTIC PERMIT
DATE _____

ISSUE CCR 15
DATE _____

ISSUE CCR 16 a
DATE _____

DATE	STATUS
12/19/90	Spoke w/ Jack Foster of Farrallon Vista Assoc. who drilled both (2) wells on the one permit. His phone # is 349-1244. He stated that both wells would be repaired so that the aquifers were adequately protected.
1-3-91	Upper Well has been sealed by welded steel Lower well has been sealed flush with pad with bolted steel plate. P.J.P.

Picture taken on 02-28-03 by Greti Wolf



McCracken, Byers & Haesloop LLP
a Multi-Disciplinary Practice
1528 So. El Camino Real, Suite 306
San Mateo, CA 94402
Tel: 650-377-4890
Fax: 650-377-4895
dbyers@landuselaw.com

Michael D. McCracken
David J. Byers
Mark Haesloop, P.C.
James M. Brennan

Of Counsel
Patrick M. K. Richardson
Paralegals
Jill Briggs

March 1, 2005

Mr. Stanley Low
Department of Environmental Health
County of San Mateo
455 Counter Center, Fourth Floor
Redwood City, CA 94063

Re: Well Logs For Farallon Vista Associates

Dear Stan:

As you will recall quite sometime ago, I asked you to locate the well logs for the Farralon Vista Associates' parcel. I represent the California School Employees Association, who is the owner of the land. I believe the APN number is 037-022-040.

Please contact me with this information.

If you any questions, do not hesitate to call.

Message w/ Dave on 3/7/05 for file review appointment
W-43-86

Sincerely,

McCRACKEN, BYERS & HAESLOOP LLP

David J. Byers

DAVID J. BYERS

APPENDIX B

SMCEHS DRILLING PERMIT

ORDINANCE: CHAPTER 4.68

ENVIRONMENTAL HEALTH
SAN MATEO COUNTY

Protecting Our Health and Environment

PERMIT 18-0245

P/E: 4667 WELL ABANDONMENT

FORMER PRODUCTION WELL

FACILITY:
INT OF CARLOS ST & SIERRA ST MOSS BEACH

OWNER:
CALIFORNIA SCHOOL EMPLOYEES ASSOCIAT
INT OF CARLOS ST & SIERRA
MOSS BEACH

SR0023814
APN: 037022070

CONTRACTOR:
CASCADE DRILLING

TERMS & CONDITIONS:
1. All setback distances are the responsibility of the property owner.
2. Environmental Health will require wells that are in violation to be destroyed by the property owner at their own expense.

DATE ISSUED: 02/09/2018

EXPIRATION DATE: 2/9/2019

ALLISON FANG
ENVIRONMENTAL HEALTH SPECIALIST

To schedule an inspection call (650) 339-5635.
Two (2) working days advance notice is required.

THIS PERMIT IS NONTRANSFERABLE AND MUST BE POSTED ON-SITE IN A CONSPICUOUS PLACE

APPENDIX C

DWR WATER WELL DRILLERS REPORT

County Review Draft

DRUPLICATE
Use of comply with local requirements

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

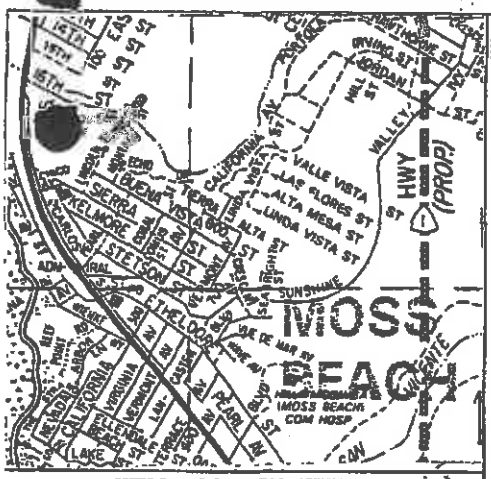
WATER WELL DRILLERS REPORT

Do not fill in
No. 149554

Notice of Intent No.
Local Permit No. or Date
State Well No.
Other Well No.

(1) OWNER: Name Farralon Vista Assn. (mike King)
Address c/o 1015 E. Hillsdale Blvd.
City Foster City, CA. Zip 94404

(2) LOCATION OF WELL (See instructions):
County San Mateo Owner's Well Number
Well address if different from above 15th & Lincoln Ave.
Township Montara Range Section
Distance from cities, roads, railroads, fences, etc.



WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well [X] Deepening [ ]
Reconstruction [ ]
Reconditioning [ ]
Horizontal Well [ ]
Destruction [ ] (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic [X]
Irrigation [ ]
Industrial [ ]
Test Well [ ]
Stock [ ]
Municipal [ ]
Other [ ]

(5) EQUIPMENT:
Rotary [X] Reverse [ ]
Cable [ ] Air [X]
Other [ ] Bucket [ ]

(6) GRAVEL PACK:
Yes [X] No [ ] Size 3/8" pea
Diameter of bore 10"
Packed from 50 to 400 ft.

(7) CASING INSTALLED:
Steel [ ] Plastic [X] Concrete [ ]

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	400	5"	C-160	80	400	1/8"

(9) WELL SEAL:
Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth 30 ft.
Were strata sealed against pollution? Yes [ ] No [X] Interval ft.
Method of sealing

(10) WATER LEVELS:
Depth of first water, if known 175 ft.
Standing level after well completion ft.

(11) WELL TESTS:
Was well test made? Yes [ ] No [ ] If yes, by whom?
Type of test Pump [ ] Bailer [ ] Air lift [ ]
Depth to water at start of test ft. At end of test ft
Discharge gal/min after hours Water temperature
Chemical analysis made? Yes [ ] No [ ] If yes, by whom?
Was electric log made? Yes [ ] No [ ] If yes, attach copy to this report

(12) WELL LOG: Total depth 400 ft. Depth of completed well 400 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

0 - 1 Asphalt & Sub base
1 - 55 Brown Decomposed Granite
55 - 70 Gray DG
70 - 73 White DG
73 - 175 Gray DG
175 - 250 Hard Gray DG (water - 175')
250 - 300 Brown/Gray DG
300 - 320 Hard GrayDG
320 - 400 Soft Gray DG

Work started 6/11 19 86 Completed 6/18 19 86

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
SIGNED (Well Driller)
NAME HAM Drilling, Inc. (Person, firm, or corporation) (Typed or printed)
Address 1538 Willow Pass Road
City Pittsburg, CA Zip 94565
License No. 426654 Date of this report 6/18/86

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM.

APPENDIX D

DWR WELL COMPLETION REPORT

State of California

Well Completion Report

Form DWR 188 Submitted 4/11/2018

WCR2018-003005

County Review Draft

Owner's Well Number | Date Work Began 02/21/2018 | Date Work Ended 03/07/2018

Local Permit Agency San Mateo County Division of Environmental Health

Secondary Permit Agency | Permit Number 18-0245 | Permit Date 02/09/2018

Well Owner (must remain confidential pursuant to Water Code 13752)

Name CALIFORNIA SCHOOL EMPLOYEES ASSOCIATION, N/A N/A

Mailing Address Intersection of Carlos and Sierra Streets

City Moss Beach State [illegible] Zip 94038

Former Use

Activity Destroy

Former Use Water Supply

Well Location

Address

City Zip County San Mateo

Latitude Deg. Min. Sec. N Longitude Deg. Min. Sec. W

Dec. Lat. 37.5341489 Dec. Long. -122.5155625

Vertical Datum Horizontal Datum WGS84

Location Accuracy 20 Ft Location Determination Method USGS Quad

APN 037022070

Township 05 S

Range 06 W

Section 04

Baseline Meridian Mount Diablo

Ground Surface Elevation

Elevation Accuracy

Elevation Determination Method

Borehole Information

Orientation Vertical Specify

Drilling Method Drilling Fluid

Total Depth of Boring Feet

Total Depth of Completed Well Feet

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield* (GPM) Test Type

Test Length (Hours) Total Drawdown (feet)

*May not be representative of a well's long term yield.

Destruction Details:

Neat Cement Grout using Tremie Methods

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name CASCADE DRILLING L P
Person, Firm or Corporation

P O BOX 1184	WOODINVILLE	WA	98072
Address	City	State	Zip

Signed *electronic signature received* | 04/11/2018 | 938110

C-57 Licensed Water Well Contractor | Date Signed | C-57 License Number

DWR Use Only

CSG #	State Well Number	Site Code	Local Well Number

					N						W

Latitude Deg/Min/Sec **Longitude Deg/Min/Sec**

TRS:

APN:

APPENDIX E

CHAIN-OF-CUSTODY, CERTIFIED ANALYTICAL REPORT, AND LABORATORY CHROMATOGRAMS

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1803635

Report Created for: AEI Consultants

2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597

Project Contact: William Hicks
Project P.O.: 154987
Project: 350428; Moss Beach

Project Received: 03/07/2018

Analytical Report reviewed & approved for release on 03/15/2018 by:

Heidi Fruhlinger
Project Manager

McCampbell Analytical, Inc.
"When Quality Counts"
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http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: AEI Consultants
Project: 350428; Moss Beach
WorkOrder: 1803635

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Glossary of Terms & Qualifier Definitions

Client: AEI Consultants
Project: 350428; Moss Beach
WorkOrder: 1803635

Analytical Qualifiers

b1	Aqueous sample that contains greater than ~1 vol. % sediment
b6	Lighter than water immiscible sheen/product is present
d7	Strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	Diesel range compounds are significant; no recognizable pattern
e7	Oil range compounds are significant

Quality Control Qualifiers

F2	LCS/LCSD recovery and/or RPD is out of acceptance criteria.
F3	The surrogate standard recovery and/or RPD is outside of acceptance limits.

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Received:	3/7/18 17:00	**Extraction Method:**	SW5030B
Date Prepared:	3/14/18	**Analytical Method:**	SW8260B
Project:	350428; Moss Beach	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WS-1	1803635-001B	Water	03/06/2018 17:30	GC16 03141815.D	154682

Analytes	Result	RL	DF	Date Analyzed
Acetone	**10**	10	1	03/14/2018 16:41
tert-Amyl methyl ether (TAME)	ND	0.50	1	03/14/2018 16:41
Benzene	ND	0.50	1	03/14/2018 16:41
Bromobenzene	ND	0.50	1	03/14/2018 16:41
Bromochloromethane	ND	0.50	1	03/14/2018 16:41
Bromodichloromethane	ND	0.50	1	03/14/2018 16:41
Bromoform	ND	0.50	1	03/14/2018 16:41
Bromomethane	ND	0.50	1	03/14/2018 16:41
2-Butanone (MEK)	**13**	2.0	1	03/14/2018 16:41
t-Butyl alcohol (TBA)	ND	2.0	1	03/14/2018 16:41
n-Butyl benzene	ND	0.50	1	03/14/2018 16:41
sec-Butyl benzene	ND	0.50	1	03/14/2018 16:41
tert-Butyl benzene	ND	0.50	1	03/14/2018 16:41
Carbon Disulfide	ND	0.50	1	03/14/2018 16:41
Carbon Tetrachloride	ND	0.50	1	03/14/2018 16:41
Chlorobenzene	ND	0.50	1	03/14/2018 16:41
Chloroethane	ND	0.50	1	03/14/2018 16:41
Chloroform	ND	0.50	1	03/14/2018 16:41
Chloromethane	ND	0.50	1	03/14/2018 16:41
2-Chlorotoluene	ND	0.50	1	03/14/2018 16:41
4-Chlorotoluene	ND	0.50	1	03/14/2018 16:41
Dibromochloromethane	ND	0.50	1	03/14/2018 16:41
1,2-Dibromo-3-chloropropane	ND	0.20	1	03/14/2018 16:41
1,2-Dibromoethane (EDB)	ND	0.50	1	03/14/2018 16:41
Dibromomethane	ND	0.50	1	03/14/2018 16:41
1,2-Dichlorobenzene	ND	0.50	1	03/14/2018 16:41
1,3-Dichlorobenzene	ND	0.50	1	03/14/2018 16:41
1,4-Dichlorobenzene	ND	0.50	1	03/14/2018 16:41
Dichlorodifluoromethane	ND	0.50	1	03/14/2018 16:41
1,1-Dichloroethane	ND	0.50	1	03/14/2018 16:41
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	03/14/2018 16:41
1,1-Dichloroethene	ND	0.50	1	03/14/2018 16:41
cis-1,2-Dichloroethene	ND	0.50	1	03/14/2018 16:41
trans-1,2-Dichloroethene	ND	0.50	1	03/14/2018 16:41
1,2-Dichloropropane	ND	0.50	1	03/14/2018 16:41
1,3-Dichloropropane	ND	0.50	1	03/14/2018 16:41
2,2-Dichloropropane	ND	0.50	1	03/14/2018 16:41

(Cont.)

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Received:	3/7/18 17:00	**Extraction Method:**	SW5030B
Date Prepared:	3/14/18	**Analytical Method:**	SW8260B
Project:	350428; Moss Beach	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WS-1	1803635-001B	Water	03/06/2018 17:30	GC16 03141815.D	154682

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	03/14/2018 16:41
cis-1,3-Dichloropropene	ND	0.50	1	03/14/2018 16:41
trans-1,3-Dichloropropene	ND	0.50	1	03/14/2018 16:41
Diisopropyl ether (DIPE)	ND	0.50	1	03/14/2018 16:41
Ethylbenzene	ND	0.50	1	03/14/2018 16:41
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	03/14/2018 16:41
Freon 113	ND	0.50	1	03/14/2018 16:41
Hexachlorobutadiene	ND	0.50	1	03/14/2018 16:41
Hexachloroethane	ND	0.50	1	03/14/2018 16:41
2-Hexanone	ND	0.50	1	03/14/2018 16:41
Isopropylbenzene	ND	0.50	1	03/14/2018 16:41
4-Isopropyl toluene	ND	0.50	1	03/14/2018 16:41
Methyl-t-butyl ether (MTBE)	ND	0.50	1	03/14/2018 16:41
Methylene chloride	ND	0.50	1	03/14/2018 16:41
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	03/14/2018 16:41
Naphthalene	**1.9**	0.50	1	03/14/2018 16:41
n-Propyl benzene	ND	0.50	1	03/14/2018 16:41
Styrene	ND	0.50	1	03/14/2018 16:41
1,1,1,2-Tetrachloroethane	ND	0.50	1	03/14/2018 16:41
1,1,2,2-Tetrachloroethane	ND	0.50	1	03/14/2018 16:41
Tetrachloroethene	ND	0.50	1	03/14/2018 16:41
Toluene	**0.81**	0.50	1	03/14/2018 16:41
1,2,3-Trichlorobenzene	ND	0.50	1	03/14/2018 16:41
1,2,4-Trichlorobenzene	ND	0.50	1	03/14/2018 16:41
1,1,1-Trichloroethane	ND	0.50	1	03/14/2018 16:41
1,1,2-Trichloroethane	ND	0.50	1	03/14/2018 16:41
Trichloroethene	ND	0.50	1	03/14/2018 16:41
Trichlorofluoromethane	ND	0.50	1	03/14/2018 16:41
1,2,3-Trichloropropane	ND	0.50	1	03/14/2018 16:41
1,2,4-Trimethylbenzene	**1.2**	0.50	1	03/14/2018 16:41
1,3,5-Trimethylbenzene	ND	0.50	1	03/14/2018 16:41
Vinyl Chloride	ND	0.50	1	03/14/2018 16:41
Xylenes, Total	ND	0.50	1	03/14/2018 16:41

(Cont.)

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Received:	3/7/18 17:00	**Extraction Method:**	SW5030B
Date Prepared:	3/14/18	**Analytical Method:**	SW8260B
Project:	350428; Moss Beach	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WS-1	1803635-001B	Water	03/06/2018 17:30	GC16 03141815.D	154682

Analytes	Result	RL	DF	Date Analyzed
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	93	78-134		03/14/2018 16:41
Toluene-d8	95	82-120		03/14/2018 16:41
4-BFB	107	69-131		03/14/2018 16:41

Analyst(s): TK Analytical Comments: b1

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Received:	3/7/18 17:00	**Extraction Method:**	SW5030B
Date Prepared:	3/14/18	**Analytical Method:**	SW8021B/8015Bm
Project:	350428; Moss Beach	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WS-1	**1803635-001A**	**Water**	**03/06/2018 17:30**	**GC3 03141806.D**	**154603**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**100**	50	1	03/14/2018 14:37
MTBE	---	5.0	1	03/14/2018 14:37
Benzene	---	0.50	1	03/14/2018 14:37
Toluene	---	0.50	1	03/14/2018 14:37
Ethylbenzene	---	0.50	1	03/14/2018 14:37
Xylenes	---	0.50	1	03/14/2018 14:37

Surrogates	REC (%)	Limits	
aaa-TFT	93	90-117	03/14/2018 14:37

Analyst(s): IA Analytical Comments: d7,b1

NELAP 4033ORELAP

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Received:	3/7/18 17:00	**Extraction Method:**	SW3510C
Date Prepared:	3/12/18	**Analytical Method:**	SW8015B
Project:	350428; Moss Beach	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WS-1	**1803635-001A**	**Water**	**03/06/2018 17:30**	**GC11B 03131859.D**	**154526**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**20,000**	2500	50	03/14/2018 04:07
TPH-Motor Oil (C18-C36)	**60,000**	12,000	50	03/14/2018 04:07

Surrogates	REC (%)	Limits	
C9	97	61-139	03/14/2018 04:07

Analyst(s): JIS Analytical Comments: e7,e2,b6,b1

NELAP 4033ORELAP

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Prepared:	3/13/18	**BatchID:**	154682
Date Analyzed:	3/13/18	**Extraction Method:**	SW5030B
Instrument:	GC38	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	350428; Moss Beach	**Sample ID:**	MB/LCS/LCSD-154682

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
Bromobenzene	ND	0.50	-	-	-
Bromochloromethane	ND	0.50	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
2-Butanone (MEK)	ND	2.0	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
n-Butyl benzene	ND	0.50	-	-	-
sec-Butyl benzene	ND	0.50	-	-	-
tert-Butyl benzene	ND	0.50	-	-	-
Carbon Disulfide	ND	0.50	-	-	-
Carbon Tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
2-Chlorotoluene	ND	0.50	-	-	-
4-Chlorotoluene	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.20	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
Dibromomethane	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
Dichlorodifluoromethane	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
cis-1,2-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
1,3-Dichloropropane	ND	0.50	-	-	-
2,2-Dichloropropane	ND	0.50	-	-	-
1,1-Dichloropropene	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-

(Cont.)

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Prepared:	3/13/18	**BatchID:**	154682
Date Analyzed:	3/13/18	**Extraction Method:**	SW5030B
Instrument:	GC38	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	350428; Moss Beach	**Sample ID:**	MB/LCS/LCSD-154682

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Freon 113	ND	0.50	-	-	-
Hexachlorobutadiene	ND	0.50	-	-	-
Hexachloroethane	ND	0.50	-	-	-
2-Hexanone	ND	0.50	-	-	-
Isopropylbenzene	ND	0.50	-	-	-
4-Isopropyl toluene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
n-Propyl benzene	ND	0.50	-	-	-
Styrene	ND	0.50	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,3-Trichlorobenzene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
1,2,3-Trichloropropane	ND	0.50	-	-	-
1,2,4-Trimethylbenzene	ND	0.50	-	-	-
1,3,5-Trimethylbenzene	ND	0.50	-	-	-
Vinyl Chloride	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-
Surrogate Recovery					
Dibromofluoromethane	21.5		25	86,F3	91-133
Toluene-d8	25.5		25	102	87-127
4-BFB	2.30		2.5	92	66-140

(Cont.)

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Prepared:	3/13/18	**BatchID:**	154682
Date Analyzed:	3/13/18	**Extraction Method:**	SW5030B
Instrument:	GC38	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	350428; Moss Beach	**Sample ID:**	MB/LCS/LCSD-154682

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	81.5	81.5	200	41, F2	41, F2	47-122	0	20
tert-Amyl methyl ether (TAME)	8.61	8.72	10	86	87	62-121	1.22	20
Benzene	8.93	8.98	10	89	90	74-121	0.602	20
Bromobenzene	8.35	8.55	10	83	86	63-127	2.42	20
Bromochloromethane	8.73	8.77	10	87	88	70-126	0.448	20
Bromodichloromethane	9.20	9.34	10	92	93	66-127	1.52	20
Bromoform	8.28	8.40	10	83	84	60-119	1.35	20
Bromomethane	9.69	9.80	10	97	98	32-155	1.14	20
2-Butanone (MEK)	34.7	35.3	40	87	88	51-117	1.67	20
t-Butyl alcohol (TBA)	34.2	33.3	40	85	83	41-122	2.52	20
n-Butyl benzene	9.33	9.34	10	93	93	73-137	0	20
sec-Butyl benzene	8.05	8.14	10	80	81	71-137	1.10	20
tert-Butyl benzene	8.37	8.42	10	84	84	61-136	0	20
Carbon Disulfide	9.47	9.33	10	95	93	61-139	1.48	20
Carbon Tetrachloride	9.64	9.65	10	96	97	69-137	0.104	20
Chlorobenzene	8.47	8.52	10	85	85	71-122	0	20
Chloroethane	8.83	8.63	10	88	86	54-132	2.27	20
Chloroform	9.13	9.23	10	91	92	73-122	1.03	20
Chloromethane	9.67	9.29	10	97	93	48-136	3.98	20
2-Chlorotoluene	8.53	8.64	10	85	86	65-134	1.34	20
4-Chlorotoluene	8.54	8.82	10	85	88	65-130	3.20	20
Dibromochloromethane	8.41	8.50	10	84	85	65-121	1.07	20
1,2-Dibromo-3-chloropropane	8.22	8.22	4	205, F2	205, F2	41-132	0	20
1,2-Dibromoethane (EDB)	8.30	8.33	10	83	83	67-125	0	20
Dibromomethane	8.75	8.87	10	88	89	68-121	1.30	20
1,2-Dichlorobenzene	8.44	8.60	10	84	86	69-128	1.92	20
1,3-Dichlorobenzene	8.57	8.59	10	86	86	71-131	0	20
1,4-Dichlorobenzene	8.52	8.64	10	85	86	70-128	1.45	20
Dichlorodifluoromethane	10.4	10.1	10	104	101	21-158	3.13	20
1,1-Dichloroethane	9.41	9.45	10	94	94	73-123	0	20
1,2-Dichloroethane (1,2-DCA)	9.05	9.17	10	90	92	61-127	1.32	20
1,1-Dichloroethene	9.66	9.59	10	97	96	68-130	0.669	20
cis-1,2-Dichloroethene	9.06	9.14	10	91	91	72-123	0	20
trans-1,2-Dichloroethene	9.01	9.01	10	90	90	64-138	0	20
1,2-Dichloropropane	9.04	9.14	10	90	91	71-121	1.19	20
1,3-Dichloropropane	9.10	8.37	10	91	84	69-120	8.30	20
2,2-Dichloropropane	9.77	9.47	10	98	95	64-142	3.18	20
1,1-Dichloropropene	9.27	9.21	10	93	92	70-130	0.616	20
cis-1,3-Dichloropropene	9.05	9.04	10	90	90	58-136	0	20

(Cont.)

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Prepared:	3/13/18	**BatchID:**	154682
Date Analyzed:	3/13/18	**Extraction Method:**	SW5030B
Instrument:	GC38	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	350428; Moss Beach	**Sample ID:**	MB/LCS/LCSD-154682

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	9.03	9.00	10	90	90	66-119	0	20
Diisopropyl ether (DIPE)	9.07	9.20	10	91	92	66-123	1.42	20
Ethylbenzene	8.93	8.90	10	89	89	71-125	0	20
Ethyl tert-butyl ether (ETBE)	8.80	8.95	10	88	90	67-122	1.68	20
Freon 113	9.41	9.35	10	94	94	68-132	0	20
Hexachlorobutadiene	9.29	9.14	10	93	91	56-155	1.72	20
Hexachloroethane	8.41	8.68	10	84	87	61-129	3.17	20
2-Hexanone	9.07	8.47	10	91	85	51-115	6.89	20
Isopropylbenzene	8.75	8.91	10	87	89	66-134	1.81	20
4-Isopropyl toluene	8.60	8.68	10	86	87	70-136	0.917	20
Methyl-t-butyl ether (MTBE)	8.62	8.64	10	86	86	64-118	0	20
Methylene chloride	8.24	8.23	10	82	82	62-121	0	20
4-Methyl-2-pentanone (MIBK)	8.75	8.72	10	88	87	51-115	0.434	20
Naphthalene	8.28	8.42	10	83	84	55-137	1.75	20
n-Propyl benzene	8.67	8.73	10	87	87	63-140	0	20
Styrene	8.53	8.58	10	85	86	62-133	0.554	20
1,1,1,2-Tetrachloroethane	8.62	8.77	10	86	88	69-128	1.73	20
1,1,2,2-Tetrachloroethane	8.42	8.57	10	84	86	60-118	1.78	20
Tetrachloroethene	9.09	9.08	10	91	91	63-136	0	20
Toluene	8.56	8.57	10	86	86	67-124	0	20
1,2,3-Trichlorobenzene	8.60	8.67	10	86	87	57-145	0.865	20
1,2,4-Trichlorobenzene	9.07	9.10	10	91	91	60-144	0	20
1,1,1-Trichloroethane	9.26	9.29	10	93	93	70-133	0	20
1,1,2-Trichloroethane	8.20	8.30	10	82	83	65-125	1.22	20
Trichloroethene	8.96	8.98	10	90	90	67-133	0	20
Trichlorofluoromethane	9.50	9.24	10	95	92	59-145	2.78	20
1,2,3-Trichloropropane	8.05	8.19	10	80	82	65-115	1.75	20
1,2,4-Trimethylbenzene	8.66	8.75	10	87	88	67-136	1.02	20
1,3,5-Trimethylbenzene	8.65	8.69	10	86	87	68-135	0.529	20
Vinyl Chloride	10.5	9.87	10	105	99	53-146	5.86	20
Xylenes, Total	26.6	26.7	30	89	89	68-128	0	20
Surrogate Recovery								
Dibromofluoromethane	23.7	23.9	25	95	95	91-133	0	20
Toluene-d8	25.2	25.2	25	101	101	87-127	0	20
4-BFB	2.36	2.32	2.5	95	93	66-140	2.03	20

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Prepared:	3/13/18	**BatchID:**	154603
Date Analyzed:	3/13/18	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	350428; Moss Beach	**Sample ID:**	MB/LCS-154603 1803692-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	50	-	-	-
MTBE	ND	5.0	-	-	-
Benzene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Xylenes	ND	0.50	-	-	-
Surrogate Recovery					
aaa-TFT	9.64		10	96	89-116

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	69.3	-	60	115	-	78-116	-	-
MTBE	8.92	-	10	89	-	72-122	-	-
Benzene	9.53	-	10	95	-	81-123	-	-
Toluene	9.95	-	10	99	-	83-129	-	-
Ethylbenzene	9.79	-	10	98	-	88-126	-	-
Xylenes	29.6	-	30	99	-	87-131	-	-
Surrogate Recovery								
aaa-TFT	9.26	-	10	93	-	89-116	-	-

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	68.3	66.6	60	ND	114	111	63-133	2.48	20
MTBE	9.17	8.92	10	ND	92	89	69-122	2.65	20
Benzene	9.57	9.77	10	ND	96	98	84-125	2.07	20
Toluene	9.98	10.2	10	ND	100	102	87-131	2.02	20
Ethylbenzene	9.83	10.0	10	ND	98	100	92-126	2.12	20
Xylenes	29.7	30.0	30	ND	99	100	88-132	1.06	20
Surrogate Recovery									
aaa-TFT	9.38	9.58	10		94	96	90-117	2.08	20

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Prepared:	3/12/18	**BatchID:**	154526
Date Analyzed:	3/12/18	**Extraction Method:**	SW3510C
Instrument:	GC11B	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	350428; Moss Beach	**Sample ID:**	MB/LCS/LCSD-154526

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	548		625	88	68-127

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1080	1140	1000	108	113	86-142	5.05	30
Surrogate Recovery								
C9	541	556	625	87	89	68-127	2.76	30

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1803635 **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
William Hicks
AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597
(925) 321-3561 FAX: (925) 283-6121

Email: whix@aeiconsultants.com
cc/3rd Party: tbodkin@aeiconsultants.com;
PO: 154987
Project: 350428; Moss Beach

Bill to:
Accounts Payable
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
AccountsPayable@AEIConsultants.com

Requested TAT: 5 days;

Date Received: **03/07/2018**
Date Logged: **03/12/2018**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1803635-001	WS-1	Water	3/6/2018 17:30	☐	B	A	A									

Test Legend:

1	8260B_W	2	G-MBTEX_W	3	TPH(DMO)_W	4	
5		6		7		8	
9		10		11		12	

Prepared by: Keylen Juarez

The following SampID: 001A contains testgroup Multi Range_W.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: AEI CONSULTANTS
Client Contact: William Hicks
Contact's Email: whix@aeiconsultants.com
Project: 350428; Moss Beach
Comments:
Work Order: 1803635
QC Level: LEVEL 2
Date Logged: 3/12/2018

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1803635-001A	WS-1	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	VOA w/ HCL+ 1-aVOA	☐	3/6/2018 17:30	5 days	10%+	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

General COC

MAI Work Order # 1803635

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ● | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #
Delivery Format: GeoTracker EDF | PDF | EDD | Write On (DW) | EQuIS

Report To: AEI Consultants Bill To: AEI Consultants
Company: AEI Consultants
Email: whix@aeiconsultants.com
Alt Email: tbodkin@aeiconsultants.com Tele: 925-746-6050
Project Name/#: 350428
Project Location: Moss Beach PO #154987
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: VOCs by 8260	TPH-multirange by 8015M	MultiRange	VOCs by 8260		HOLD — MW	
10/. WS-1	3/6/2018	1730	8	GW	HCL/ICE	●	●	X	X		●	●

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
[signature]	~~3/6/18~~		CAP	3/7/18	0900
	3/6/18	1200			
CAP	3/7/18	1500	[signature]	3/7/18	1700

Comments / Instructions
Samples off HOLD 3/9/18

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 3.6 °C Initials KJ

Page ___ of ___

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Sample Receipt Checklist

Client Name: **AEI Consultants**
Project: **350428; Moss Beach**

WorkOrder №: **1803635** Matrix: Water
Carrier: Patrick Johnson (MAI Courier)

Date and Time Received: **3/7/2018 17:00**
Date Logged: **3/12/2018**
Received by: Keylen Juarez
Logged by: Keylen Juarez

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☑	No	☐	NA	☐
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET ICE)						
Sample/Temp Blank temperature	Temp: 3.6°C				NA	☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA	☑
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA	☑
UCMR Samples:						
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA	☑

Comments:

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1803635 A

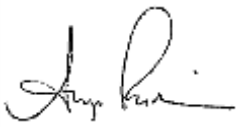
Report Created for: AEI Consultants

2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597

Project Contact: William Hicks
Project P.O.: 154987
Project: 350428; Moss Beach

Project Received: 03/07/2018

Analytical Report reviewed & approved for release on 03/20/2018 by:



Angela Rydelius
Laboratory Manager

McCampbell Analytical, Inc.
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Glossary of Terms & Qualifier Definitions

Client: AEI Consultants
Project: 350428; Moss Beach
WorkOrder: 1803635 A

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Glossary of Terms & Qualifier Definitions

Client: AEI Consultants
Project: 350428; Moss Beach
WorkOrder: 1803635 A

Analytical Qualifiers

H	Samples were analyzed out of holding time
b1	Aqueous sample that contains greater than ~1 vol. % sediment
e2	Diesel range compounds are significant; no recognizable pattern
e7	Oil range compounds are significant

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Received:	3/7/18 17:00	**Extraction Method:**	SW3510C/3630C
Date Prepared:	3/19/18	**Analytical Method:**	SW8015B
Project:	350428; Moss Beach	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WS-1	1803635-001C	Water	03/06/2018 17:30	GC11A 03191820.D	154919

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**20,000**	H	1000	20	03/19/2018 15:10
TPH-Motor Oil (C18-C36)	**55,000**	H	5000	20	03/19/2018 15:10

Surrogates	REC (%)	Qualifiers	Limits	
C9	93	H	61-139	03/19/2018 15:10

Analyst(s): JIS Analytical Comments: e7,e2,b1

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1803635
Date Prepared:	3/19/18	**BatchID:**	154919
Date Analyzed:	3/19/18	**Extraction Method:**	SW3510C/3630C
Instrument:	GC9a	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	350428; Moss Beach	**Sample ID:**	MB/LCS/LCSD-154919

QC Report for SW8015B w/ Silica Gel Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	646		625	103	68-127

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1080	1080	1000	108	108	86-142	0	30
Surrogate Recovery								
C9	642	645	625	103	103	68-127	0	30

County Review Draft

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1803635 A **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☒ Detection Summary ☒ Dry-Weight

Report to:
William Hicks
AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597
(925) 321-3561 FAX: (925) 283-6121

Email: whix@aeiconsultants.com
cc/3rd Party: tbodkin@aeiconsultants.com;
PO: 154987
Project: 350428; Moss Beach

Bill to:
Accounts Payable
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
AccountsPayable@AEIConsultants.com

Requested TAT: 1 day;

Date Received: **03/07/2018**
Date Logged: **03/12/2018**
Date Add-On: **03/19/2018**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1803635-001	WS-1	Water	3/6/2018 17:30	☐	C											

Test Legend:

1	TPH(DMO)WSG_W	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Keylen Juarez

Add-On Prepared By: Kena Ponce

Comments: TPH(dmo) W/ SG added 3/19/18 RTAT

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: AEI CONSULTANTS
Client Contact: William Hicks
Contact's Email whix@aeiconsultants.com

Project: 350428; Moss Beach
Comments: TPH(dmo) W/ SG added 3/19/18 RTAT

Work Order: 1803635
QC Level: LEVEL 2
Date Logged: 3/12/2018
Date Add-On: 3/19/2018

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1803635-001C	WS-1	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	1	aVOA Unpres	3/6/2018 17:30	1 day	10%+	☐	

NOTES: **- STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).**

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

General COC

County Review Draft

MAI Work Order # 1803635

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ● | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #
Delivery Format: GeoTracker EDF | PDF | EDD | Write On (DW) | EQuIS

Report To: AEI Consultants — Bill To: AEI Consultants
Company: AEI Consultants
Email: whix@aeiconsultants.com
Alt Email: tbodkin@aeiconsultants.com — Tele: 925-746-6050
Project Name/#: 350428
Project Location: Moss Beach — PO #154987
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	VOCs by 8260	TPH-multirange by 8015M	X MultiRange	X VOCs by 8260		HOLD MW		TPH DRO w/SG 3/19/18 KM									
10% WS-1	3/6/2018	1730	8	GW	HCL/ICE	●	●	X	X		●	●										

Analysis Requested

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	~~3/6~~		CAP	3/7/18	0900
	3/6/18	1200			
CAP	3/7/18	1700		3/7/18	1700

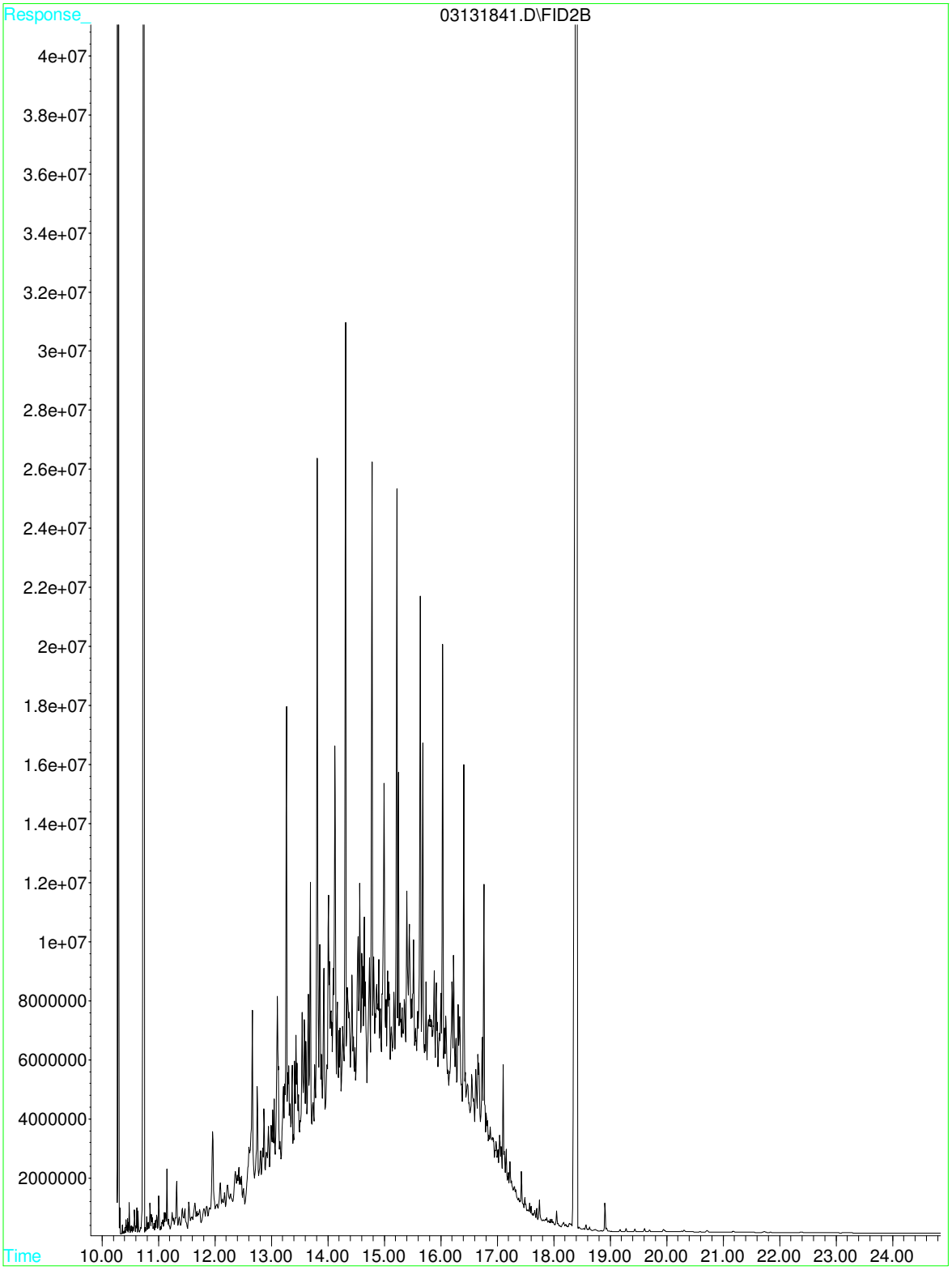
Comments / Instructions: Samples off HOLD 3/9/18

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 3.6 °C Initials KJ

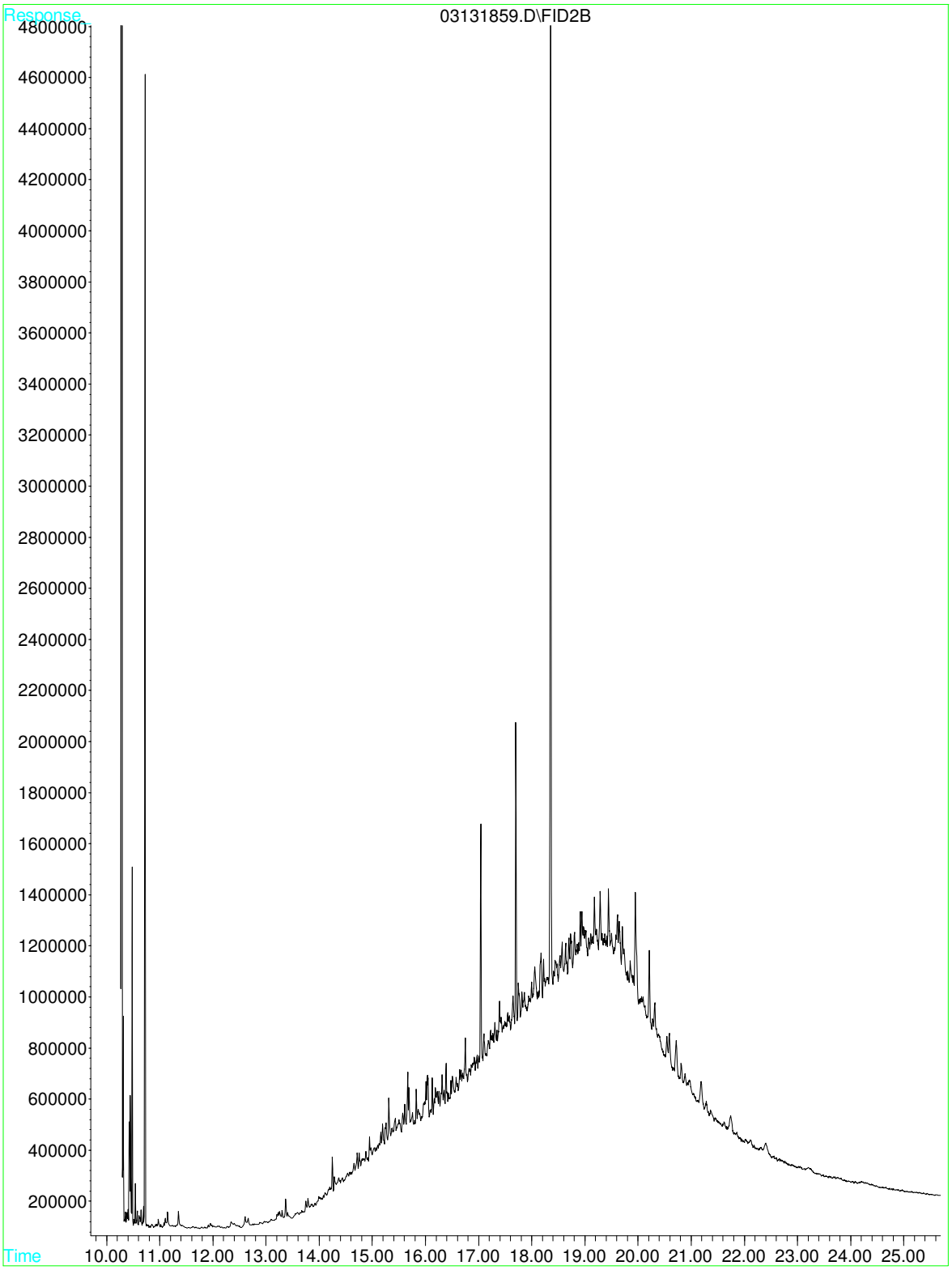
Page ___ of ___

File : D:\HPCHEM\GC11\DATAB\03131841.D
Operator : JILLIAN
Acquired : 13 Mar 2018 10:17 pm using AcqMethod GC11A_B4.M
Instrument : GC-11
Sample Name: CCV 2-16
Misc Info :
Vial Number: 71



County Review Draft

File : D:\HPCHEM\GC11\DATAB\03131859.D
Operator : JILLIAN
Acquired : 14 Mar 2018 4:07 am using AcqMethod GC11A_B4.M
Instrument : GC-11
Sample Name: 1803635-001A W SHEEN
Misc Info : TPH
Vial Number: 80



APPENDIX F

SMCEHS CONFIRMATION OF WELL DESTRUCTION PERMIT CLOSEOUT

Tim Bodkin

From: Allison Fang <afang@smcgov.org>
Sent: Monday, June 11, 2018 1:29 PM
To: Tim Bodkin
Subject: RE: 350428 Request for Written Confirmation of Permit Closeout for Well Destruction Project, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Hello Tim,

Yes, we have closed out the well destruction permit and we did receive the well completion report.

Allison Fang, REHS
Land Use, Septic, and Wells Program
San Mateo County Environmental Health
2000 Alameda de las Pulgas, Suite 100
San Mateo, CA 94403
Work Cell: 650-339-5635
Fax: 650-627-8244
http://smchealth.org/landuse

From: Tim Bodkin [mailto:tbodkin@aeiconsultants.com]
Sent: Monday, June 11, 2018 12:02 PM
To: Allison Fang <afang@smcgov.org>
Cc: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: RE: 350428 Request for Written Confirmation of Permit Closeout for Well Destruction Project, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Good morning, Allison:

I am contacting you to ensure that the permit for our well destruction project has officially been closed out. I assume that you have received the DWR Well Completion Report by now. If you could email me back confirming the permits has been closed out, that would be great. I will need to incorporate it into our report for the project. Thank you very much and look forward to hearing from you.

Kind regards,

--Tim--

Timothy G. Bodkin, PG, CEG
Senior Geologist - Site Mitigation
AEI Consultants
3880 S. Bascom Avenue, Suite 109
San Jose, CA 95124
p. 408.559.7600, ext. 2013
c. 650.622.6560
f. 408.559.7601
www.aeiconsultants.com

Professional Registrations:
PG-CA GEO 4706 / CEG-CA EG 1551 / RG-OR G1294 / CEG-OR E1294 / LG-WA 336 / PG-ID PGL-731 / PG-WY PG-136 / PG-LA 458

From: Tim Bodkin
Sent: Thursday, April 12, 2018 1:34 PM
To: Allison Fang <afang@smcgov.org>
Cc: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: RE: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Will do and thank you once again for your immediate followup.

Kind regards,

--Tim--

Timothy G. Bodkin, PG, CEG
Senior Geologist - Site Mitigation
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From: Allison Fang <afang@smcgov.org>
Sent: Thursday, April 12, 2018 1:31 PM
To: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: RE: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Hi Tim,

There is no other written documentation that I can provide, once we receive the well completion report we close out our permit. Feel free to share this e-mail with the client that we are closing out all files on our end.

Allison Fang, REHS
Land Use, Septic, and Wells Program

San Mateo County Environmental Health
2000 Alameda de las Pulgas, Suite 100
San Mateo, CA 94403
Work Cell: 650-339-5635
Fax: 650-627-8244
http://smchealth.org/landuse

From: Tim Bodkin [mailto:tbodkin@aeiconsultants.com]
Sent: Thursday, April 12, 2018 1:23 PM
To: Allison Fang <afang@smcgov.org>
Cc: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: RE: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Excellent. Please send me written documentation so that I can share it with our client who has been asking for it. Thanks again for your help.

Kind regards,

--Tim--

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From: Allison Fang <afang@smcgov.org>
Sent: Thursday, April 12, 2018 1:22 PM
To: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: RE: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Hi Tim,

This looks good. We'll get this permit closed out. Thank you!

From: Tim Bodkin [mailto:tbodkin@aeiconsultants.com]
Sent: Thursday, April 12, 2018 12:05 PM

To: Allison Fang <afang@smcgov.org>
Cc: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: RE: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Hi Allison:

The WCR has been updated. Please let me know if all is OK. Thank you.

Kind regards,

--Tim--

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AEI Consultants
3880 S. Bascom Avenue, Suite 109
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From: Allison Fang <afang@smcgov.org>
Sent: Wednesday, April 11, 2018 3:43 PM
To: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: RE: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Hi Tim,

The well location section doesn't show the city or the zip code, these should also be added.

From: Tim Bodkin [mailto:tbodkin@aeiconsultants.com]
Sent: Wednesday, April 11, 2018 12:58 PM
To: Allison Fang <afang@smcgov.org>
Subject: RE: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Hi Allison:

I just got off the phone with DWR. The record should be updated showing the street address. Please let me know if all is OK.

Kind regards,

--Tim--

Timothy G. Bodkin, PG, CEG
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From: Allison Fang <afang@smcgov.org>
Sent: Wednesday, April 11, 2018 12:36 PM
To: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: Re: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

I see that under the mailing address but not the well location section. You should be able to edit it.

Sent from my iPhone

On Apr 11, 2018, at 12:25 PM, Tim Bodkin <tbodkin@aeiconsultants.com> wrote:

> I originally had input “Carlos and Sierra Streets”. I guess the WCR needs to be updated ? It was my first time using DWR’s new website.
>
> Kind regards,
>
> --Tim--
>
> Timothy G. Bodkin, PG, CEG
> Senior Geologist - Site Mitigation
> **AEI Consultants**
> 3880 S. Bascom Avenue, Suite 109
> San Jose, CA 95124
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From: Allison Fang <afang@smcgov.org>
Sent: Wednesday, April 11, 2018 12:22 PM
To: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: RE: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Tim,

I just checked the OSWCR website and I do see the WCR however the address needs to be input – does the system not allow you to put an intersection under the well location?

From: Tim Bodkin [mailto:tbodkin@aeiconsultants.com]
Sent: Wednesday, April 11, 2018 12:12 PM
To: Allison Fang <afang@smcgov.org>
Cc: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: RE: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

I just completed the Well Completion Report online on Cascade's behalf this morning. I will followup with Cascade. Our client is antsy and wants this put to rest. Back to you once I know more. Thanks for your immediate response.

Kind regards,

--Tim--

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From: Allison Fang <afang@smcgov.org>
Sent: Wednesday, April 11, 2018 12:09 PM
To: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: RE: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Hi Tim,

We haven't closed out the permit yet because we're waiting on the well completion report from Cascade Drilling, but I've attached my inspection report.

Allison Fang, REHS
Land Use, Septic, and Wells Program
San Mateo County Environmental Health
2000 Alameda de las Pulgas, Suite 100
San Mateo, CA 94403
Work Cell: 650-339-5635
Fax: 650-627-8244
http://smchealth.org/landuse

From: Tim Bodkin [mailto:tbodkin@aeiconsultants.com]
Sent: Wednesday, April 11, 2018 11:47 AM
To: Allison Fang <afang@smcgov.org>
Cc: Tim Bodkin <tbodkin@aeiconsultants.com>
Subject: 350428 Request for Documentation of Well Destruction Approval, Carlos at Sierra Streets, Moss Beach, CA (AEI PN 350428)

Good morning, Allison:

Our client has requested documentation of your approval of the well destruction completed at our Moss Beach site. Please get back to me when you can. Many thanks.

Kind regards,

--Tim--

Timothy G. Bodkin, PG, CEG
Senior Geologist - Site Mitigation
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<image001.png>