

27 March 2014



Jeanine Townsend
Clerk to the Board
State Water Resource Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Re: Comments Letter -- Petition of Zief Foundation, Proposed Order April 1 Board Meeting
COMMENTS IN SUPPORT OF PROPOSED ORDER DIRECTING REOPENING OF
UNDERGROUND STORAGE TANK (UST) CASE AND FURTHER CORRECTIVE
ACTION AT FORMER CHEVRON SERVICE STATION LOCATED AT 2009
SOUTH EL CAMINO REAL, SAN MATEO, CALIFORNIA, **CASE N0 9-7863**
(Chevron LUFT at 2009 S. El Camino / 20 East 20th Adjacent Property Impacted)

Dear Ms. Townsend:

Thank you for the opportunity to submit the below comments in support of the State Water Board's proposed order ("Order"). We agree with the Order in the most substantive regard. Contamination from the former Chevron site continues to harm actual health and safety of the community. In addition, Chevron's contamination has been, and continues to be a significant burden on the property owner (Zief Family Foundation) at 20 E. 20th Avenue, San Mateo for over 15 years.¹

The Zief Family Foundation, a non-profit entity, has been forced to divert its limited resources from providing a valuable service to San Mateo County's developmentally disabled population to engaging in a costly and seemingly uphill battle with Chevron in a concerted effort to protect its property, staff and clients from impacts related to contaminated groundwater migrating from the Chevron site to the Zief property. The Zief Family Foundation is therefore pleased to see the State Water Resources Control Board step in with a regulatory mechanism to

¹ Please see letter dated July 31, 1998 from City of San Mateo to Osborne that states "Chevron... has accepted responsibility for the contamination and its mitigation." Chevron was ordered by this letter in 1998 "[s]hort-term, the sump discharge to the street must be stopped as soon as possible." [Attachment A]

ensure that Chevron fulfills its legal obligation to address groundwater contamination affecting the Zief Family Foundation.

Although Chevron recently installed modifications to the Zief property's stormwater conveyance system, no jointed system is guaranteed to be waterproof, and the efficacy of the improvements will not be proven until the groundwater level is high enough to inundate system components.

Moreover, Chevron has yet to complete a study of additional transport mechanisms that may contribute to hydrocarbon contamination entering the stormwater conveyance system on Zief property.

Also significant is the fact that water and soil samples collected during the recent stormwater system upgrade indicate that the soil and groundwater beneath the Zief property are contaminated with petroleum hydrocarbons: TPH-g was measured as high as 52 mg/Kg in soil and 1,700 ug/Kg in groundwater, and benzene was measured at 72 ug/L in groundwater.²

These results disprove allegations made by Chevron and its consultant that hydrocarbon contamination in the Zief sump water is due to parking lot operations; elevated results also justify concerns regarding liability should the stormwater system upgrade prove ineffective. For these and other reasons, we respectfully request that the State Water Board give thoughtful consideration to the following comments submitted on behalf of the Zief Family Foundation.

Specifically, we agree that "the Chevron site has not been adequately and completely addressed through Chevron's site investigation, remedial actions, and subsequent monitoring activities." [Order, p. 9 par. 1]

We agree that "[t]he evidence suggests that petroleum contaminated groundwater from the former Chevron site continues to create unreasonable impacts to the neighboring Zief property." [Order, p.9 par. 3]

² Please refer to Blaine Tech Services' field log [Attachment B] and Kiff Analytical's report of analytical results [Attachment C].

We agree that “contaminants remain along the western and northern boundary of the site adjacent to the sidewalks and roadways and the exact extent of the contamination into the area of the sidewalk and roadway are not known.” [Order, p. 5 par. 3]

We agree that “residual petroleum hydrocarbons are still present in localized areas and are migrating through the subsurface to the Zief site.” [Order, p.9 par. 2]

We agree wherein the Order states “the County agreed that the area around the retaining wall that separates the former Chevron site from the Zief property likely contains unexcavated hydrocarbons.” [Order, p. 9 par. 3]

We agree that “Chevron’s cleanup and abatement activities are not complete³ because residual petroleum constituents continue to unreasonably impact the Zief site, and its corrective action has not resulted in a permanent cleanup and abatement solution.” [Order, p11, par. 3]

We agree with the State Board’s proposed Order, which states that “20 additional years of continued petroleum residue on the adjacent parcel is not reasonable under the circumstances” and “Chevron has not yet submitted a plan that is confirmed to eliminate the need for ongoing oversight and maintenance due to its past releases.” [Order, p. 12 par. 3]

Chevron’s Liability for its Contamination to Soil and Groundwater Should Not Be Truncated

We commend the Board for recognizing that Chevron inappropriately seeks to truncate liability, noting Chevron’s argument that “further responsibility for any discharge from the Zief site to the storm or sanitary water system will be the responsibility of the [adjacent] property owner” after it completes limited work at the Zief site. [Order, p. 8, par. 1]

³ It is again noted that an undocumented quantity (several) of historic USTs were pulled in 1983. These old tanks were located on the portion of the Chevron property “west of the station building.” [Please see Attachment D, Geotracker & April 25, 2006 letter from consultant Cambria to San Mateo County, in pertinent part]. There is no evidence of any tank pull report, or other documentation of the tank pull, or of any clean up / remediation. Also in 1983 “new UST’s were installed on the southern portion of the site.” In 1993, Golden West Builders “removed four UST’s.” [Attachment D]. It appears these 4 tanks pulled in 1993 were the new tanks installed in 1983. It seems very likely that the historic pre 1983 tanks have substantial undocumented release and plume, since the pre 1983 UST’s were in operation prior to modern spill prevention. It is therefore also a fear of adjacent property owner that this undocumented plume will continue to encounter the sump, with Chevron claiming this contamination is not Chevron’s responsibility.

In contrast, we are shocked that the County's March 18, 2014 comment letter appears to take exception to the State Water Board's view, stating "[o]f note, the proposed order also seems to question Chevron's statement that once the recent work to the sump separating groundwater from storm water is completed...all future discharges from the site will be the responsibility of the property owner." More than questioning Chevron, we repudiate that view: It is not correct under the facts or the law. Chevron must remain responsible for all of its contamination.

Chevron's Prior Conduct to Evade Responsibility

It has been an ongoing battle with Chevron to eliminate the source of hydrocarbon contamination from the Zief property's stormwater system. We can point to numerous examples wherein Chevron conducted apparently intentional and outrageous acts in support of its claim that it does not have liability for its contamination. This can be supported by documents and witnesses under penalty of perjury.

For one example, Chevron's consultant, Conestoga-Rovers & Associates (CRA), removed the emergency notification sign posted on the adjacent property's sump room door that directed personnel to contact CRA in case of emergency (i.e., pump failure and flooding). Although "Chevron c/o CRA" is identified in the Waste Discharge Permit as responsible for the discharge from the sump, the CRA representative stated that Chevron was no longer responsible for the contamination.

For another example, Chevron's recent proposal to modify the adjacent property's stormwater conveyance system included installing catch basins manufactured with openings that would have allowed contaminated groundwater to enter the stormwater system. The Zief Foundation expert on site caught this otherwise fatal error. If this error was not caught, the system would have been back filled and paved over for perpetuity, and contaminated groundwater would be entering the storm water discharge via the inappropriately selected catch basins. Chevron would have blamed the adjacent property owner for this intrusion, truth never to be discovered, encased in a coating of asphalt. Chevron claims this error was inadvertent.

Additionally, Chevron presented testimony stating that the area on top of the contaminated soils at the property boundary retaining wall was paved over and impervious to

rain and leaching. This was blatantly false. We presented a series of photos showing that there was bare earth atop the retaining wall and in a planter located approximately above the former waste oil tank at the former Chevron site, proving that the former Chevron site is absolutely not paved over. (Likewise, it must be noted that the *failure to remove the contaminated soils in the vicinity of the retaining wall was unrelated to any structural issue with any building*. The only structural issue is regarding the retaining wall. Of course, you may have to modify that retaining wall if you wish to excavate those contaminated soils. That is a simple task and it should have been done).

Further, Chevron has falsely asserted in writing on multiple occasions that there was no remaining contamination to groundwater. Chevron has stated, *inter-alia* that "the source of low petroleum hydrocarbon concentration concentrations in the sump... is very possibly due to surface runoff within the garage", that "no one has proved that the groundwater is contaminated" and that contamination detected in the Zief sump is "most likely from years of parking lot operations and not related to groundwater." ⁴

Finally, Chevron's March 5, 2014 request to the County to re-open the site seems to be of similar vein, coming only after the State Water Board's February 20, 2014 proposed order. This is coupled with the County "agreeing" to re-open the site on one hand, and on the other hand seeking to have the State Water Board's proposed order completely reversed or withdrawn. Taken together, this would appear to be another of Chevron's attempts to truncate liability and responsibility for its contamination and its most harmful and ongoing legacy. The undersigned dares to say it is another odor emanating from the site, or at the least it has the appearance of something less than transparent.

Key Issues Remain Unresolved – Minimal Progress During Chevron's 15-Year Waste Discharge Permit

Although this has already been a decade-long battle for the neighboring property owner, the City of San Mateo first issued a Waste Discharge Permit to Chevron and its consultant over 15 years ago, on February 19, 1999, after the San Mateo County GPP discovered petroleum

⁴ Conestoga-Rovers & Associates (CRA), "Draft Revised Sump Management Plan", April 8, 2011; also September 30, 2011 letter from CRA to the City of San Mateo.

hydrocarbon residue at the point of sump discharge to the storm drain system. That Permit and subsequent Waste Discharge Permits issued to Chevron included the following requirement:

“Responsible parties shall work toward elimination of the source of the groundwater contamination. Authorization to discharge to the sanitary sewer is granted with the understanding that the sewer connection is not intended to be a permanent solution. Once the contaminants are eliminated from the source water, the sewer connection shall be eliminated and the sump discharge returned to the storm drainage system.”⁵

In June 2000, Chevron’s consultant (Cambria Environmental) submitted a report to the City of San Mateo and the San Mateo County GPP, acknowledging that the former Chevron site was the source of hydrocarbon in the Zief sump; Cambria thus proposed further remediation (biosparging) at the northeast corner of the former Chevron site.⁶ However, for unknown reasons, that remediation plan never materialized.

Even after extensive soil and groundwater contamination was encountered in October 2004 during excavation of the elevator shaft near the retaining wall on the Zief property, no attempts were made by Chevron to comply with the Waste Discharge Requirements noted above or to initiate further remediation. In fact, it wasn’t until the San Mateo County GPP required a Sump Management Plan as a condition for site closure that Chevron submitted the first iteration of its Plan in May 2010. That Plan’s basic strategy (periodic monitoring and reporting while maintaining discharge to the sanitary sewer) simply represented the status quo and was rejected by the City and the County GPP. After at least 7 iterations, Chevron’s design plans to replace the stormwater conveyance system on the Zief property were finally approved by the City of San Mateo in September 2012. It was subsequently determined that the City’s Building Department inappropriately changed the discharge point to the storm drain system, so the Plans were modified again and approved in September/October 2013.

⁵ Waste Discharge Permit issued to Chevron by the City of San Mateo, February 17, 1999.

⁶ Deno G. Milano, P.G. (Cambria Environmental Technology, Inc), “Dissolved-Phase Hydrocarbons in Offsite Sump”, June 30, 2000. Please also see February 24, 2005 letter from Smith of County of San Mateo to Lafferty of Chevron states “injection of low concentrations of hydrogen peroxide or biosparging appear to be potentially effective remedial options.”

Notably then, Chevron has been regulated under a Waste Discharge Permit for over 15 years and has assumed responsibility for discharging contaminated water from the adjacent property owner's sump to the sanitary sewer.⁷ [Attachment A]. During this time, very little has been done to mitigate or minimize impacts to the Zief Family Foundation. We are hopeful that the current Plan proves effective, but there remain key unresolved issues as set forth herein.

There is no plan to address potential contamination from other sources, including weep holes in the retaining wall separating the former Chevron site from the Zief property. Repeated attempts to bring this to Chevron's attention have failed to produce results, including multiple reports by Dr. Rexford Upp, a Registered Geologist, identifying weep holes and other preferential intrusion pathways as potential sources. Moreover, should the upgraded stormwater conveyance system fail to seal off contaminated groundwater, the Zief Family Foundation will be back at square one. If system failure occurs after the discharge reverts to the storm drain system, the Zief Family Foundation may be held liable for the illegal discharge of pollutants to local waterways.

Unfortunately, because of the lack of effective regulatory oversight of Chevron and its activities over the past 15 years, the Zief Family Foundation has expended many hours of time, money and other resources that would have been better used to serve the special populations encompassed by the Zief mission and purpose.

There are Real, Long Standing, Long Lasting Serious Actual Impacts to Human Health and Safety – Not Technical Issues – Underscores Necessity of Proposed Order

We all share the desire to protect human health and the waterways of the State of California. We note that the County, in its comment letter dated March 18, 2014, asks the State Water Board to clarify “whether or not there is an actual impact or threat to impact human health, safety, or the environment in the case.” [p. 1 par. 2]

We can't help but take issue, however, when the County refers to whether there are actual impacts to human health, safety or the environment as “technical issues.” [p. 1 par. 3] It is not a technical issue that Zief Foundation has been battling Chevron's contamination for over

⁷ It is likewise noted that the Waster Discharge Permit dated 12/28/07 states the permit “Expires: December 31, 2010.”

a decade. It is not a technical question to have petroleum-impacted groundwater exit the sump discharge, spilling into the street, making the sidewalk slick, impacting people, birds and other wildlife on its way to the creeks and rivers of the State of California. It is not a technical issue that contamination is seeping from weep holes at the property line retaining wall and into the adjacent property owner's discharge to the waters of the State.

It is not a technical issue that the adjacent property owner still faces years of uncertainty, disruption and risk as this problem gets resolved. It is no technical issue that Chevron's petroleum-laced soil and groundwater plume continues to pulse through the community, leaking and leaching, including into the Zief sump.

It is not a technical issue that the garage and interior spaces have smelled of petroleum. We can't help but note that the County's March 18, 2014 letter states that "vapor intrusion pathway... does not exist at this site" [p. 3 par. 4]; yet the County in the same letter also admits "no vapor or air samples have actually been collected and analyzed."⁸ [p. 5 par. 3]

It is not a technical issue that the adjacent property owner has incurred tens of thousands of dollars to-date of unreimbursed out-of-pocket costs due to Chevron's contamination. Costs, past and anticipated, continue to mount. For example, Zief Foundation is being asked to foot the bill for possible years of Flogard filters for use in the new catch basins installed by Chevron. In addition, Chevron moved the sump; it is now located in the garage. Worse, the new sump installed by Chevron on the neighbor's property is located just outside the electrical room, with risk of flooding and by reasonable inference, increased risk of electrocution. The last pump failure that occurred in 2012 left standing water in the electrical room and other garage areas as much as 6 inches deep. Pump failures will invariably occur, and as in the aforementioned case, will potentially expose Zief employees or clients to hydrocarbon-contaminated water. According to the February 15, 2014 Project Summary "[l]ocating the new sump just outside the electrical room increased the potential for flooding in the electrical room in the event of a sump pump failure."

⁸ We don't fathom how the County believes the proposed order would not allow vapor intrusion mitigation! The County states "[w]ith the proposed order, it appears... active or passive vapor mitigation systems... are not allowed." [County's March 18, 2014 letter at page 3, paragraph 2.].

This was one of the several significant and unstudied and untested changes done on the fly during construction, not included in the original scope of work. Other such changes to the scope of work included abandoning an existing sump in place, exposing footings of the Zief building, not installing one of the proposed catch basins, installation of area drain on top of an existing sump, not installing a new vent fan, not installing a cleanout, discovery and decommissioning of an old sump, possibly without a preferential pathway study, and other significant changes made in the field during construction. [Attachment E, February 15, 2014 Project Summary at pages 1 -2].

These are some of the site-specific factors that will potentially impact human health, safety and the environment and that warrant adoption of the State Water Board's proposed Order.

Impacts to Health and Safety - Sump System Has Already Failed a Number of Times / Has Leaked / Not Tested During High Water Table / Future Risks

The adjacent property owner has a very reasonable concern for the future over the coming decades. Chevron's sump management system presents multiple threats to health and safety going forward. For one obvious example, Chevron's new stormwater system could fail to seal off contaminated groundwater from the stormwater system, leaving neighbor Zief back at square one to deal with the regulatory nightmare that will invariably follow. It is noted that the prior sump pump system failed a number of times while under Chevron's care, causing flooding and potential exposure to elevated levels of hydrocarbons.

We Hereby Request That Proposed Order Require Chevron to Manage Sump System Through Natural Attenuation Period

In addition, even though Chevron upgraded the storm water conveyance system, its effectiveness won't be known until the water table is high enough to test whether the system is actually sealed. Similarly, leaks were detected during construction. The fact that leaks were detected during construction demonstrates that testing the system with a high water table is crucial to determining if the upgrade sealed off contaminated groundwater from the neighbor's stormwater system.

It also must be noted that the County's March 18, 2014 comment letter argues that hydrocarbon concentrations in the neighbor's sump are low. The County does this by highlighting sump data collected in 2013 by Chevron's consultant (CRA). This does not however, appear to reflect the accurate totality of site conditions, and appears to be calculated to show low concentrations, instead of actual site conditions.

For example, a quick look at previous data reveals significant variability in concentrations detected. During the previous year, TPH and Benzene exceeded permit limits (from R2-2012-0012) in 3 out of 4 samples, at concentrations of 1,700 to 2,400 ug/L. This is significant and likely reflects that the data are subject to variability as influenced by the level of the groundwater table and strongly suggests that more study should be done.

Therefore, we strongly recommend that the proposed order require that Chevron continue to manage the sump system even after it's reconnected to the storm drain system, and that Chevron be required to maintain it through their proposed attenuation period (i.e., 2029). We propose that sump water monitoring be conducted during the wet season when the water table is high; the existing elevator wet well can be used to measure depth to water relative to stormwater piping elevations so that sampling occurs only when groundwater is in contact with the stormwater conveyance piping. Monitoring the levels of TPH and associated constituents in the elevator wet well would also provide a reasonable estimate of contamination remaining in groundwater in the vicinity of the sump; these data should be trended to confirm that natural attenuation is reducing hydrocarbon contamination in the groundwater beneath the Zief property. Semiannual or annual sampling of the sump discharge during the wet season would provide an indication of the integrity of the stormwater conveyance system installed by Chevron and ensure that excursions above established limits would be investigated and resolved in a timely manner, again by Chevron. In this manner, responsibility for managing the stormwater system and any potential failure of said system would rest solely with Chevron, where it belongs. Chevron should not be released from responsibility once Chevron is allowed to revert to the storm drain discharge.

Modification of Particular Sentence on Page 4 of Proposed Order For Clarity

The other modification to the proposed Order that we request is a simple clarification. Page 4, last paragraph of the proposed Order states "[i]t is uncontested that hydrocarbon accumulation

has been present in the below grade parking structure since at least 1998.” We wish to be clear that the contamination is from the groundwater, not from within the parking area. The parking area was not in use for two years (2003 – 2005) while contamination continued to register in the sump from Chevron’s contaminated groundwater. We suggest the subject sentence be removed, or modified to read “[i]t is uncontested that hydrocarbon accumulation from contaminated groundwater has been present in the sump in the below grade parking structure since at least 1998.”

City of San Mateo Has Requested Site Be Re-Opened, Property Owner Has Requested Site Be Re-opened, Chevron Has Requested Site Be Re-Opened, County Has Agreed to Re-Open Site – Underscores that Proposed Order is Appropriate

As noted by the proposed Order, “[i]n March 2012, the City investigated the site and requested that the State Water Board reopen the case.” [Order, p.7 par. 2] Likewise, the adjacent property owner has requested that the site be re-opened. Chevron, by undated letter sent March 5, 2014, “requested that San Mateo County Groundwater Protection Program (GPP) formally re-open” the site.⁹ [Attachment F]. The County states, by letter dated March 20, 2014 to Chevron, that “[b]ased on new information... most notably the failure to comply with the sump management plan and addendum over the past three years, GPP is *agreeing* to reopen the case.” [Attachment G, p.1 par. 1, emphasis added]. This underscores that the proposed order is necessary and appropriate.

State Water Board Order Demonstrated Even More Necessary Based on Positions of Interested Parties – Further Oversight Should Remain with State Water Board

The March 20, 2014 letter from the County agreeing to re-open the case is in interesting contrast to the County’s March 18, 2014 letter to the State Water Board in comment to the proposed Order. Although the County’s March 20 letter to Chevron states the site is being re-opened, the March 18 letter to the State Board incongruently seeks a “complete reversal or

⁹ This was stated in an undated letter from Chevron’s Brian A. Waite, Project Manager, to Charles Ice for the County in “follow up on our conversation yesterday.” The date of the letter is determined by an accompanying email dated “3/5/14” that states “[t]hank you for taking the time to discuss this site with me yesterday. Attached you will find a letter requesting that San Mateo County Groundwater Protection Program formally reopen the above referenced case.”

withdrawal, of the proposed Order.” [p. 7 par. 3] Likewise, the County letter considers the actual serious impacts to human health and the environment as “technical” issues.

The various actions, stated above, taken independently and together, all underscore the very need for the State Water Board’s proposed Order, and its very specific language, directives and oversight. It is noteworthy that Chevron has not responded in a timely manner to directives from the County or the City to eliminate sources of groundwater contamination from the stormwater conveyance system at the Zief property, or to develop and implement a Sump Management Plan to address groundwater contamination impacting the Zief property, its employees and clients. It is our sincere hope that regulatory oversight provided by the State Water Board through the proposed Order will ensure that the remaining issues will be resolved in a timely manner, with little or no further inconvenience to the Zief Family Foundation.

I look forward to presenting these matters at the April 1, 2014 State Water Board meeting. Likewise, I would be happy to answer any question at that time or any time. As always, please do not hesitate to contact the undersigned any time regarding any matter.

Sincerely,

Kalfen Law Corporation



Herman I. Kalfen, JD, REA

Cc: Robert Goodman, Chevron Counsel
Charles Ice, County of San Mateo
Dean D. Peterson, County of San Mateo
Brian Waite, Chevron Environmental Mgt.
Client

Attachments: As stated

Attachment A



DEPARTMENT OF PUBLIC WORKS
WATER QUALITY CONTROL PLANT

2050 Detroit Drive
San Mateo, California 94404
(415) 377-4690
FAX: (415) 348-2279

July 31, 1998

Lee Osborne
20 East 20th Avenue
P.O. Box 906
San Mateo, CA 94403

Re: Elimination of Pollutant Discharge, 20 East 20th Avenue

Mr. Osborne:

It was a pleasure meeting with you yesterday. As you know, I met with representatives of Chevron and Cambria Environmental Technology earlier in the day at the site and discussed measures required to eliminate the discharge of tainted groundwater from the garage sump. In summary, both short term and long-term measures are needed to mitigate the problem:

1. Short-term, the sump discharge to the street must be stopped as soon as possible. You are authorized to direct the flow to the sanitary sewer with a temporary connection. A flexible or plastic line may run from the existing pump (or smaller pump if needed) to any of several available sewer clean outs.
2. Concurrently, a medium-term sewer discharge system must be installed which includes a flow equalization to accommodate peak flows during rain events. As contaminant levels are expected to remain within sewer discharge limits, no pretreatment is required at this time. The system must be fully operational by October 15.
3. Submit plans for the system no later than August 31. A complete submittal will include the following:
 - intermediate holding tank to help equalize peak flows during rain events.
 - specifications and drawing of pumping system including estimated average and peak inflow to the sump, sump size, equalization tank size, pump size and configuration, flow meter, sewer hookup detail, level controls, high level alarm, and other components.
4. Long-term, responsible parties must work toward elimination of the contaminant source. Authorization to discharge to the sewer is granted with the understanding that the sewer connection is not intended to be a permanent solution. Once the contaminants are eliminated, the sewer connection shall be eliminated and sump discharge returned to the storm drainage system.

Upon approval of plans, a wastewater discharge permit will be issued. The permit will specify operating requirements, such as a monitoring plan and sewer service charges.

Cambria, working on behalf of Chevron Products Company, who has accepted responsibility for the contamination and its mitigation, needs your assistance in granting permission to access the property to conduct the necessary repairs. It is essential that you provide all assistance necessary to correct this situation as soon as possible.

Thank you for your prompt attention to this matter. Should you have any questions, please call me at (650)579-7751.

Sincerely,



VERN BESSEY
ENVIRONMENTAL COMPLIANCE COORDINATOR

cc: Arch Perry, Director of Public Works
Brian Busch, Cambria Environmental Technology

Attachment B

WELL MONITORING DATA SHEET

Project #: 131213-CL1	Client: COLUMBIA ENVIRONMENTAL SERVICES
Sampler: CK	Date: 12/13/13
Well I.D.: NEW SUMP WATER	Well Diameter: 2 3 4 6 8 <u>TPG 8" (circled)</u>
Total Well Depth (TD): _____	Depth to Water (DTW): _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra <u>Peristaltic</u> Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing <u>Other: NEW TUBING</u>
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_____ (Gals.) X _____ I Case Volume Specified Volumes	= _____ Gals. Calculated Volume
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Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1400	10.8	7.27	855	229	—	

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 12/13/13 Sampling Time: 1400 Depth to Water: _____

Sample I.D.: NEW SUMP WATER Laboratory: Kiff CalScience Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE LOC

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

FIELD NOTES

Project#: 131213-CK1 Client/Project: COLUMBIA ENVIRONMENTAL SERVICES P. SAN MATEO 20 E. 20th AVE,
Date: 12/13/13 BTS Technician: CORYN KILPATRICK

Time	Activity
1210	ARRIVE ON-SITE
1220	MEET w/ CLIENT SHELLI (CES)
	CONDUCT HAZOP + REVIEW SOW
1230	CALL PM TO REVIEW SOW
	NEED TO WAIT UNTIL CONCRETE TRACE IS GONE TO GAIN ACCESS.
1310	ACCESS GRANTED
1315	EXAMINE TRENCH, REVIEW BEST COURSE OF ACTIONS
1725	TAKE MEASUREMENTS.
1340	TAKE PICTURES OF TRENCH
1400	COLLECT WATER SAMPLE w/ PERI PUMP & NEW TUBING IN 3x HCU VOS SAMPLE AS NEW SUMP WATER @ 1400
1405	DELOW AUGER.
1410	COLLECT SOIL SAMPLE FROM TRENCH @ CLIENT REQUESTED LOCATION. LABEL AS "NEW SUMP SOIL - 1" @ 1410 IN 902 JAR
1415	COLLECT 2ND SOIL SAMPLE DELOW AUGER w/ LIQUIDEX & PRESSURE WASHER
1420	COLLECT 2 ND SOIL SAMPLE FROM FROM TRENCH @ CLIENT REQUESTED LOCATION. LABEL AS "NEW SUMP SOIL - 2" @ 1420 IN 902 JAR
1425	DELOW AUGER w/ LIQUIDEX & PRESSURE WASHER
1430	COLLECT 3 RD SOIL SAMPLE FROM TRENCH @ CLIENT REQUESTED LOCATION. LABEL AS "NEW SUMP SOIL - 3" @ 1430 IN 902 JAR
1435	COMPOSITE SOIL SAMPLES "NEW SUMP SOIL 1-3" INTO 902 JAR LABEL AS "NEW SUMP SOIL - 4" @ 1435
1445	DESIGN DRAW DIAGRAM OF TRENCH & SAMPLE LOCATIONS
1455	SECURE TRENCH. CALL PM TO REVIEW SOW
1505	DEPART SITE. SAN JOSE SACRAMENTO LOS ANGELES SAN DIEGO SEATTLE

FIELD SKETCH

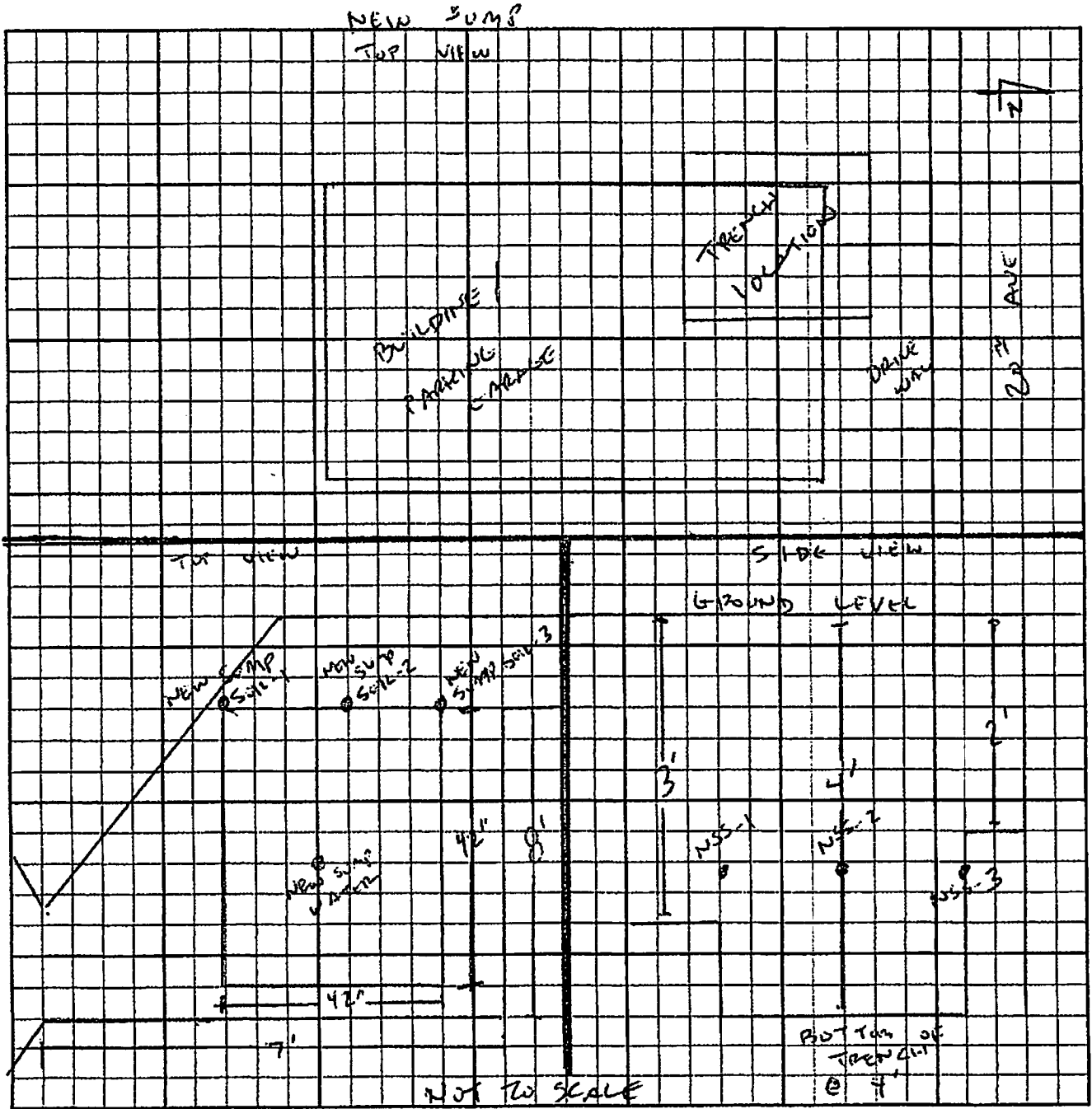
20 E. 20th AVE,

Project#: 131213-CK1

Client/Project: COLOMBIA ENVIRONMENTAL SERVICES P SAN MATCO

Date: 12/13/13

BTS Technician: ANNE & VIJAYAKUMAR



BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

KIFF

DHS #

CONDUCT ANALYSIS TO DETECT

LAB KIFF

MUST MEET SPECIFICATIONS

EPA RWQCB REGION _____

LIA

OTHER

CHAIN OF CUSTODY

BTS # 131213 - CK1

CLIENT
 COLUMBIA ENVIRONMENTAL SERVICES

SITE
 20 E. 20th AVE, SAN MATEO

C = COMPOSITE ALL CONTAINERS

TPH (8260B)

BENZENE (8260B)


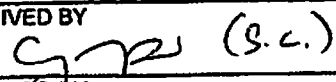
SPECIAL INSTRUCTIONS

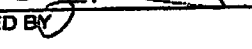
Invoice and Report to:
 COLUMBIA ENVIRONMENTAL SERVICES
 ATTN: SHELLY ST. CLAIR
 (650) 477-7337
 SHELLY.STCLAIR@GMAIL.COM

SAMPLE I.D.	DATE	TIME	MATRIX	CONTAINERS		C = COMPOSITE ALL CONTAINERS	TPH (8260B)	BENZENE (8260B)							ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			S = Soil W = H2O	TOTAL														
NEW SUMP WATER	12/13/13	1400	W	3	HELV GAS		X	X										
NEW SUMP SOIL - 1		1410	S	1	902 JAR		X	X										
NEW SUMP SOIL - 2		1420	S	1	902 JAR		X	X										
NEW SUMP SOIL - 3		1430	S	1	902 JAR		X	X										
NEW SUMP SOIL - 4		1435	S	1	902 JAR		X	X						COMPOSITE OF NEW SUMP SOIL 1-3				

SAMPLING COMPLETED DATE 12/13/13 TIME 1440 SAMPLING PERFORMED BY COREY KILPATRICK

RESULTS NEEDED NO LATER THAN NORMAL THT

RELEASED BY  DATE 12/13/13 TIME 1645 RECEIVED BY  (S.C.) DATE 12/13/13 TIME 1645

RELEASED BY  DATE DATE TIME TIME RECEIVED BY DATE TIME

RELEASED BY DATE TIME RECEIVED BY DATE TIME

SHIPPED VIA DATE SENT TIME SENT COOLER #

SITE DEPARTURE CHECKLIST

Client COLUMBIA ENVIRONMENTAL SERVICES Date 12/13/13
 Site Address 20 E. 20th AVE, SAN MATEO
 Job Number 131213-CK1 Technician CK

- | | | |
|---|-------------------------------------|-------|
| Caps, Locks and Wellbox Bolts Secured at all Accessed Wells
(except as noted on Wellhead Repair Order) | <input checked="" type="checkbox"/> | |
| Drum(s) Labeled and Secured | <input type="checkbox"/> | (N/A) |
| Equipment Decontaminated | <input checked="" type="checkbox"/> | N/A |
| Housekeeping of Site Checked (clean or cleaner) | <input checked="" type="checkbox"/> | N/A |
| Scope Of Work (SOW) Reviewed for Completion | <input checked="" type="checkbox"/> | |
| Sample Container Set(s) Complete, Present and Secure | <input checked="" type="checkbox"/> | N/A |
| Bill of Lading Completed | <input type="checkbox"/> | (N/A) |
| Chain of Custody Completed | <input checked="" type="checkbox"/> | N/A |
| Call In to Project Coordinator / Base Completed | <input checked="" type="checkbox"/> | N/A |
| Route to Next Destination Known, Mapped and Understood | <input checked="" type="checkbox"/> | |
| Traffic Control Devices Collected | <input type="checkbox"/> | (N/A) |
| Cargo Secured on Truck | <input checked="" type="checkbox"/> | N/A |
| Check Out of Facility / Site | <input type="checkbox"/> | (N/A) |
| Secure Site / Close and Lock Gate | <input type="checkbox"/> | (N/A) |

If Checklist Task cannot be completed, explain: _____

PROJECT COORDINATOR ONLY

Checklist Reviewed _____ <div style="text-align: center; font-size: small;">Initial/Date</div>	Notes _____
---	-------------

Attachment C



Laboratory Results

Shelli St.Clair
Columbia Environmental Services, LLC
P.O. Box 521
Belmont, CA 94002

Subject : 3 Soil Samples and 1 Water Sample
Project Name : 20 E 20th AVE, SAN MATEO
Project Number : 131213-CK1

Dear Ms. St.Clair,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC and TNI 2009 standards. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Troy Turpen

Subject : 3 Soil Samples and 1 Water Sample
Project Name : 20 E 20th AVE, SAN MATEO
Project Number : 131213-CK1

Case Narrative

All soil samples were reported on a total weight (wet weight) basis.

Sample NEW SUMP SOIL-4 was placed on hold by client request.

Project Name : 20 E 20th AVE, SAN MATEO

Project Number : 131213-CK1

Sample : NEW SUMP WATER

Matrix : Water

Lab Number : 86923-01

Sample Date :12/13/2013

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	72	0.50	ug/L	EPA 8260B	12/19/13 09:23
TPH as Gasoline	1700	50	ug/L	EPA 8260B	12/19/13 09:23
1,2-Dichloroethane-d4 (Surr)	95.6		% Recovery	EPA 8260B	12/19/13 09:23
Toluene - d8 (Surr)	96.2		% Recovery	EPA 8260B	12/19/13 09:23

Sample : NEW SUMP SOIL-1

Matrix : Soil

Lab Number : 86923-02

Sample Date :12/13/2013

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/19/13 21:49
TPH as Gasoline	2.5	1.0	mg/Kg	EPA 8260B	12/20/13 23:31
1,2-Dichloroethane-d4 (Surr)	94.4		% Recovery	EPA 8260B	12/20/13 23:31
Toluene - d8 (Surr)	98.8		% Recovery	EPA 8260B	12/20/13 23:31

Sample : NEW SUMP SOIL-2

Matrix : Soil

Lab Number : 86923-03

Sample Date :12/13/2013

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/19/13 22:26
TPH as Gasoline	31	1.0	mg/Kg	EPA 8260B	12/21/13 00:10
1,2-Dichloroethane-d4 (Surr)	104		% Recovery	EPA 8260B	12/21/13 00:10
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/21/13 00:10

Project Name : 20 E 20th AVE, SAN MATEO

Project Number : 131213-CK1

Sample : NEW SUMP SOIL-3

Matrix : Soil

Lab Number : 86923-04

Sample Date :12/13/2013

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.025	0.025	mg/Kg	EPA 8260B	12/19/13 23:00
TPH as Gasoline	52	2.5	mg/Kg	EPA 8260B	12/19/13 23:00
1,2-Dichloroethane-d4 (Surr)	98.6		% Recovery	EPA 8260B	12/19/13 23:00
Toluene - d8 (Surr)	96.9		% Recovery	EPA 8260B	12/19/13 23:00
2-Bromochlorobenzene (Surr)	85.7		% Recovery	EPA 8260B	12/19/13 23:00

Report Number : 86923

Date : 12/23/2013

QC Report : Method Blank Data

Project Name : 20 E 20th AVE, SAN MATEO

Project Number : 131213-CK1

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/18/2013						
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/18/2013						
1,2-Dichloroethane-d4 (Surr)	106		%	EPA 8260B	12/18/2013						
Toluene - d8 (Surr)	98.6		%	EPA 8260B	12/18/2013						
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/20/2013						
1,2-Dichloroethane-d4 (Surr)	103		%	EPA 8260B	12/20/2013						
Toluene - d8 (Surr)	100		%	EPA 8260B	12/20/2013						
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2013						
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/19/2013						
1,2-Dichloroethane-d4 (Surr)	97.1		%	EPA 8260B	12/19/2013						
Toluene - d8 (Surr)	98.4		%	EPA 8260B	12/19/2013						

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 20 E 20th AVE, SAN MATEO

Project Number : 131213-CK1

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	86912-03	<0.0050	0.0396	0.0389	0.0325	0.0314	mg/Kg	EPA 8260B	12/18/13	82.2	80.7	1.80	70.0-130	25
Benzene	86923-01	72	40.0	40.0	104	103	ug/L	EPA 8260B	12/19/13	80.5	78.0	3.15	70.0-130	25

QC Report : Laboratory Control Sample (LCS)

Project Name : **20 E 20th AVE, SAN MATEO**

Project Number : **131213-CK1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0388	mg/Kg	EPA 8260B	12/18/13	87.2	70.0-130
Benzene	40.2	ug/L	EPA 8260B	12/19/13	93.7	70.0-130
TPH as Gasoline	488	ug/L	EPA 8260B	12/19/13	85.6	70.0-130

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

86923

KIFF

DHS #

CHAIN OF CUSTODY

BTS # 131213 - CK1

CLIENT
COLUMBIA ENVIRONMENTAL SERVICES

SITE
20 E. 20th AVE, SAN MATEO

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

TPH-g (8260B)

BENZENE (8260B)

LAB KIFF

MUST MEET SPECIFICATIONS

EPA RWQCB REGION

LIA

OTHER

SPECIAL INSTRUCTIONS

Invoice and Report to:
COLUMBIA ENVIRONMENTAL SERVICES
ATTN: SHELLI ST. CLAIR
(650) 477-7337
SHELLI.STCLAIR@GMAIL.COM

SAMPLE I.D.	DATE	TIME	MATRIX	TOTAL	CONTAINERS	C	TPH-g (8260B)	BENZENE (8260B)								ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			S = Soil W = H2O																
NEW SUMP WATER	12/13/13	1400	W	3	HELVAS	X	X												01
NEW SUMP SOIL - 1		1410	S	1	902 JAR	X	X												02
NEW SUMP SOIL - 2		1420	S	1	902 JAR	X	X												03
NEW SUMP SOIL - 3		1430	S	1	902 JAR	X	X												04
NEW SUMP SOIL - 4		1435	S	1	902 JAR	X	X									COMPOSITE OF NEW SUMP SOIL 1-3			05

SAMPLING COMPLETED 12/13/13 1440 SAMPLING PERFORMED BY CORBY KILPATRICK

RESULTS NEEDED NO LATER THAN NORMAL TAT

RELEASED BY *[Signature]* DATE 12/13/13 TIME 1645 RECEIVED BY *[Signature]* (S.C.) DATE 12/13/13 TIME 1645

RELEASED BY *[Signature]* (Sample Custodian) DATE 12/16/13 TIME 1500 RECEIVED BY *[Signature]* DATE DATE TIME TIME

RELEASED BY *[Signature]* DATE DATE TIME TIME RECEIVED BY *[Signature]* Kiff Analytical LLC DATE 12/17/13 TIME 1334

SHIPPED VIA FedEx DATE SENT 12/16/13 TIME SENT 1530 COOLER # 1

\$260.00 paid by check # 1023

Attachment D

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER

CHEVRON 9-7863 (T0608100553) - (MAP)

2009 SOUTH EL CAMINO REAL
SAN MATEO, CA 94403
SAN MATEO COUNTY
LUST CLEANUP SITE

CLEANUP OVERSIGHT AGENCIES

SAN MATEO COUNTY LOP (LEAD) - CASE #: 110083

CASEWORKER: CHARLES ICE

SAN FRANCISCO BAY RWQCB (REGION 2) - CASE #: 41-0579

CASEWORKER: NANCY KATYL

CUF Claim #:

9056

CUF Priority Assigned:

D

CUF Amount Paid:

Regulatory Profile

CLEANUP STATUS

OPEN - REMEDIATION AS OF 1/24/2006

POTENTIAL CONTAMINANTS OF CONCERN

GASOLINE

POTENTIAL MEDIA AFFECTED

OTHER GROUNDWATER (USES OTHER THAN DRINKING WATER)

FILE LOCATION

LOCAL AGENCY

GROUNDWATER MONITORING FREQUENCY

OF WELLS MONITORED - ANNUALLY : 3

Site History

Extracted from CRA's NOVEMBER 19, 2009 CLOSURE REPORT, San Mateo County does not take responsibility for the accuracy of the statements made or any professional interpretations made in the referenced report.

The site is located at the southeast corner of El Camino Real and 20th Avenue in San Mateo, California (Figure 1). The site is currently operating as a Quick Stop Oil Change Service Station. The former Chevron Service Station facilities included a station building, three underground fuel storage tanks (USTs), two dispenser islands, two hydraulic hoists, and a used-oil UST. *NO REPORTS - NO REMEDIATION NOTED FOR 1983 REMOVAL OF OLD TANKS*
1983 UST Removal: In 1983, steel fuel underground storage tanks (USTs) west of the station building were removed. New USTs were installed within the southern portion of the site.

December 1992 Investigation: In December 1992, RESNA advanced borings B-1 through B-6 (Figure 2), to evaluate for petroleum hydrocarbons in soil and groundwater in the vicinity of the former and existing USTs. Total petroleum hydrocarbons as gasoline (TPHg) was detected in borings B-2, B-3, and B-4 and the highest concentrations was 150 milligrams per kilogram (mg/kg) in boring B-3 at 11.5 feet below grade (fbg). No benzene was detected in soil. The highest petroleum hydrocarbon concentrations detected in groundwater were 31,000 micrograms per liter (µg/L) TPHg and 2,000 µg/L benzene in boring B-4. removed USTs installed 1983

1993-1994 UST Removal and Over-Excavation: In November 1993, Golden West Builders demolished the site, including the station building, and removed four USTs (three 10,000-gallon fuel USTs and a 1,000-gallon used-oil UST), fuel product lines, dispenser islands, and two hydraulic hoists. Between November 1993 and May 1994, approximately 2,100 cubic yards of soil were excavated from the site, of which approximately 1,500 cubic yards of soil were transported to a disposal facility. Groundwater was observed at approximately 10.5 fbg during the UST removal activities. Approximately 5,000 gallons of groundwater were pumped from an excavation made in the area of the former used-oil tank, and the water was transported to an appropriate disposal facility. The highest remaining petroleum hydrocarbon concentrations in soil are 3,300 mg/kg TPHg in side wall sample WX-19 and 6 mg/kg benzene in sidewall sample WX-21. The highest concentrations of TPHg and benzene in groundwater were detected in B-4 near the former used oil tank at concentrations of 31,000 µg/L and 2,000 µg/L.

July 1995 Investigation: In July 1995, Touchstone drilled borings MW-1, MW-2, MW-3, and B-4 and installed monitoring wells in borings MW-1 through MW-3. Only low concentrations of petroleum hydrocarbons were detected

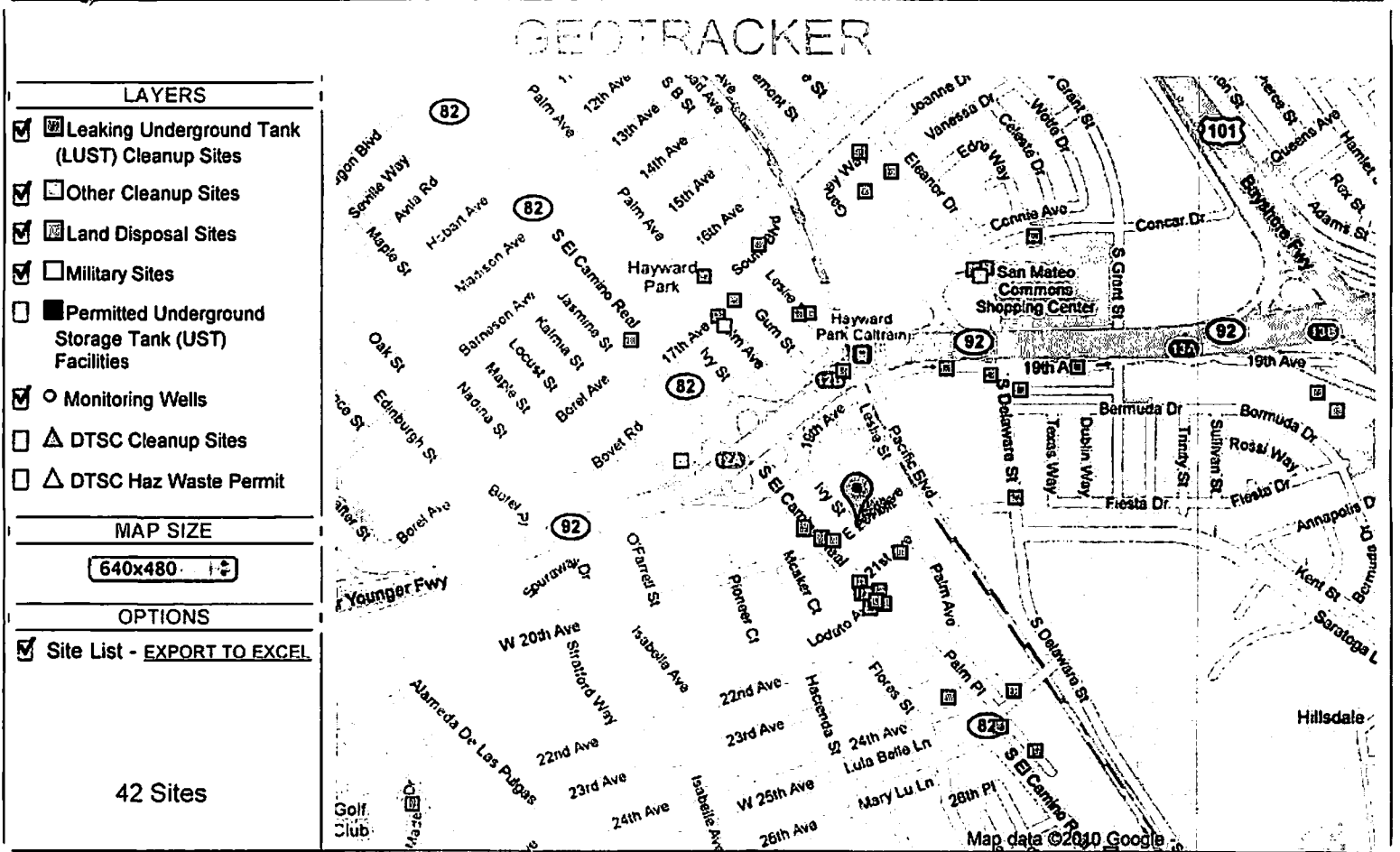
in boring MW-3.

1999-Present Sump Remediation History: In 1999, the City of San Mateo Department of Public Works (CSMDPW) requested that petroleum hydrocarbon-bearing groundwater being discharged from the sump located at 20 East 20th Avenue under CSMDPW Wastewater Discharge Permit #OSB-S be treated prior to discharge. On July 21, 1999, Cambria Environmental Technology, Inc. (Cambria) installed a groundwater treatment system (GWTS). On September 24, 1999, Cambria removed the GWTS after receiving approval from CSMDPW, since concentrations detected in the sump were below discharge concentration limits. Currently, CRA collects required data and submits quarterly compliance sampling reports to the CSMDPW for permit compliance.

September 2004 Investigation: On September 23, 2004, Cambria advanced soil borings SB-1 through SB-4, along the eastern property line (Figure 2). Petroleum hydrocarbons were detected in soil from borings SB-1 and SB-3. The highest concentration of TPHg in soil was 370 mg/kg from boring SB-1 at 9 fbg. No benzene was detected in soil. Complete results of this investigation are described in Cambria's March 4, 2005 Subsurface Investigation Report.

2004 Elevator Construction Dewatering and Soil Disposal: On October 8, 2004, Cambria was notified that hydrocarbon impacted groundwater was encountered during elevator-shaft construction activities at 20 East 20th Avenue. Cambria's Soil and Ground Water Management Plan, dated October 9, 2004, was prepared to outline a dewatering protocol and groundwater discharge requirements during the elevator shaft construction. Cambria installed a temporary carbon treatment system at the site to allow treatment of water from the shaft so that the construction activities could continue. Based on totalizer readings, approximately 12,834 gallons of groundwater were pumped from the basement sump between September 2 and December 28, 2004. During each site visit by Cambria personnel, the flow totalizer was cleaned and inspected to verify that it was operating properly. According to Mr. Kurt Soto of Romic Environmental, dewatering operations for the elevator shaft were terminated on January 25, 2005. During the construction of the elevator shaft, 8 cubic yards of soil were excavated and transported for proper disposal at a Chevron-approved facility. No petroleum hydrocarbons were detected in the soil composite sample used to profile the excavated soil for disposal.

[LINK TO THIS MAP](#)



SHOW SITES WITHIN 1000 FEET OF THE FOLLOWING ADDRESS: east 20th street, san mateo, ca

SITE NAME	GLOBAL ID	CLEANUP STATUS	ADDRESS	CITY
ACE ROOFING COMPANY	T0608191201	COMPLETED - CASE CLOSED	1154 EAST 19TH AVENUE	SAN MATEO
AH SAM	T0608192712	COMPLETED - CASE CLOSED	2645 SOUTH EL CAMINO REAL	SAN MATEO
ARCO #4495	T0608100038	OPEN - SITE ASSESSMENT	1950 SOUTH DELAWARE STREET	SAN MATEO
BAY AREA SELF STORAGE	T0608149292	COMPLETED - CASE CLOSED	1140-1150 EAST 19TH AVENUE	SAN MATEO
BOB RANDICK CO	T0608100853	COMPLETED - CASE CLOSED	1740 LESLIE	SAN MATEO
BOB REEDS SERVICE STATION	T0608101097	OPEN - SITE ASSESSMENT	1641 PALM	SAN MATEO
BOREL SQUARE SHOPPING CENTER	T0608176275	OPEN - REMEDIATION	35-93 BOVET ROAD	SAN MATEO
BP #11195	T0608100342	OPEN - SITE ASSESSMENT	404 EAST 19TH AVENUE	SAN MATEO
C & P SERVICE, INC.	T0608192800	OPEN - SITE ASSESSMENT	2777 SOUTH EL CAMINO REAL	SAN MATEO
CALTRAIN N&S CTX CONSTRUCTION	SL0608151701	OPEN - INACTIVE	CALTRAIN CORRIDOR (SF TO SANTA CLARA)	SAN MATEO
CHEVRON 9-4224	T0608100131	COMPLETED - CASE CLOSED	2950 SOUTH EL CAMINO REAL	SAN MATEO
CHEVRON 9-7863	T0608100553	OPEN - REMEDIATION	2009 SOUTH EL CAMINO REAL	SAN MATEO
CHIN'S SERVICE STATION	T0608100331	COMPLETED - CASE CLOSED	2300 SOUTH EL CAMINO REAL	SAN MATEO
COOKS PROPERTY	T0608100000	COMPLETED - CASE CLOSED	2160 SOUTH EL CAMINO REAL	SAN MATEO

MAP AN ADDRESS:

November 1993 UST and Product Line Removal: In November 1993, Golden West Builders demolished the site, including the station building, and removed four USTs (three 10,000 gallon fuel tanks and a 1,000 gallon waste oil tank), fuel product lines, and dispenser islands. Two hydraulic hoists were located within the service bays of the former station building. Between November 1993 and May 1994, approximately 2,100 cubic yards (yd³) of soil were excavated from the site, of which approximately 1,500 yd³ of soil were transported to a disposal facility. To avoid damaging a concrete block retaining wall along the eastern property line (Figure 2), a narrow strip of soil was left in-place behind the wall. Details of the UST and product line removal work, and the site excavation activities, are discussed in a September 22, 1994 Touchstone Developments (Touchstone) report. Figure 2 shows the limits and approximate depths of the 1993-1994 excavations. Ground water was observed at approximately 10.5 fbg during the UST removal activities. Approximately 5,000 gallons of ground water were pumped from an excavation made in the area of the former waste oil tank, and the water was transported to an appropriate disposal facility. TPHg was detected in soil at the north end of the east island and within the former waste oil tank area at concentrations of 470 mg/kg and 4,100 mg/kg, respectively. The highest concentrations of TPHg and benzene in ground water were detected in the UST pit at concentrations of 89,000 µg/L and 8,700 µg/L, respectively.

July 1995 Investigation: In July 1995, Touchstone drilled four borings and converted three borings to monitoring wells MW-1 through MW-3 (Figure 2). The results of this investigation are described in the October 10, 1995 Touchstone report.

May 2002 Feasibility Study: On May 17, 2002, Cambria submitted a *Feasibility Study* to SMCHSA that discussed measures to remediate the source of petroleum hydrocarbon-bearing water detected in the sump located at 20 East 20th Avenue. The study concluded that the majority of petroleum hydrocarbon-bearing soils had been remediated by soil excavation and offsite soil disposal.

September 2004 Investigation: On September 23, 2004, Cambria advanced four soil borings along the eastern property line (SB-1 through SB-4, Figure 2). The highest concentration of TPHg in soil was 370 mg/kg, found in a sample from SB-1 at a depth of 9 fbg. Benzene was not detected in any of the soil samples collected. Complete results of this investigation are described in Cambria's March 4, 2005 *Subsurface Investigation Report*.

April 25, 2006

Mr. Gregory J. Smith, PG
San Mateo County Health Services Agency (SMCHSA)
Public Health and Environmental Protection Division
455 County Center
Redwood City, California 94063

Re: **Remedial Action Plan**
Former Chevron Service Station 9-7863
2009 El Camino Real
San Mateo, California
SMCHSA Site #110083



Dear Mr. Smith:

Cambria Environmental Technology, Inc. (Cambria) is submitting this Remedial Action Plan (RAP) on behalf of Chevron Environmental Management Company (Chevron) in response to a SMCHSA request in a January 24, 2006 letter (Attachment A). The RAP presents the site background and a summary of current environmental conditions and proposes a method for determining background hydrocarbon concentrations, remedial implementation, operation, monitoring design, and cleanup goals.

BACKGROUND

The subject site, which currently houses a Quick Stop Oil Change Service Station, is located at the southeast corner of El Camino Real and 20th Avenue in San Mateo, California (Figure 1). A Chevron Service Station previously operated on the site and was facilitated by a station building, three underground storage tanks (USTs), two dispenser islands, two semi-hydraulic hoists, and a waste oil UST (Figure 2).

The site is in an area of mixed commercial and residential land uses. A small office building with below-grade parking is located on the adjacent property to the northeast at 20 East 20th Avenue (Figure 2).

**ambria
nvironmental
echnology, inc.**

900 Hollis Street
Suite A
Menlo Park, CA 94025
Tel (415) 420-0700
Fax (415) 420-9170

Attachment E



January 15, 2014

**Stormwater System Upgrade at
20 E. 20th Avenue, San Mateo**

Project Summary

Submitted to:
**DAVID CURSON, PRESIDENT
ZIEF FAMILY FOUNDATION**

Prepared by:
COLUMBIA ENVIRONMENTAL SERVICES, LLC

PROJECT SUMMARY
Stormwater System Upgrade
Zief Family Foundation, 20 E. 20th Avenue, San Mateo

Prepared by Columbia Environmental Services, LLC
January 15, 2014

Chevron and its consultants (CRA, Cornerstone) upgraded the stormwater management system at 20 E. 20th Avenue in San Mateo from December 8 through December 22, 2013. This Project Summary describes the following:

- (1) The original (September 2012) scope of work;
- (2) Significant changes to the September 2012 design plans submitted by Chevron/CRA to the City;
- (3) Analytical laboratory results for water and soil samples collected on December 13, 2013; and
- (4) A brief discussion of the State Water Resources Control Board's Low-Threat Underground Storage Tank Case Closure Policy.

Photographs and video of work performed are included on a USB storage device included with this transmittal. Additional files stored on the USB device include daily field logs and an electronic copy of this report.

Scope of Work

Chevron/CRA upgraded the stormwater management system at 20 E. 20th Avenue to eliminate the inflow of hydrocarbon-contaminated groundwater into the system. The upgrade was to include the following scope of work:

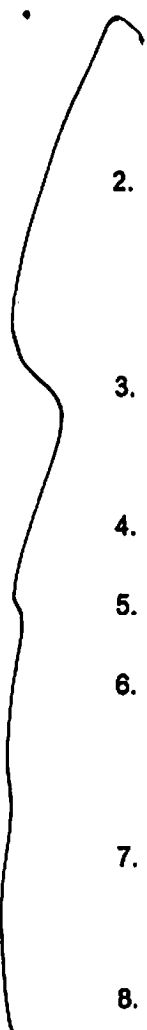

1. Cut and cap or remove the existing conveyance piping;
2. Remove and replace the existing catch basins and area drains with new catch basins, and install an additional catch basin at the end of the trench drain;
3. Trench and install new underground stormwater conveyance piping from the catch basins to the sump;
4. Backfill and repave the trench to match the existing adjoining pavement surfaces;
5. Line the sump and trench drain with waterproof sealant;
6. Maintain the connection to the sanitary sewer until discharge monitoring demonstrates that groundwater intrusion has been eliminated;
7. Grind down and repave the parking garage with asphalt; and
8. Restripe and otherwise delineate parking spaces.

Changes to the Scope of Work

The scope of work was completed with the following changes:

1. During trenching, foundation footing was exposed in the garage just outside the stairwell room door and was determined to extend into the sump room; the assumption was made that the footing surrounds the existing sump. In addition, the existing sump was determined to consist of a corroded metal sleeve with a hole in the bottom. The existing sump was therefore abandoned in place, and a

X



new, larger sump was installed near the end of the trench drain. Discharge piping and electrical conduit from the new sump was routed over the top of the foundation footing and into the sump room.

- 2. Locating the new sump just outside the electrical room increased the potential for flooding in the electrical room in the event of a sump pump failure. The concrete floor of the electrical room, including the floor inside the phone cabinet, was therefore paved and sloped to prevent water from pooling in the electrical room. The bottom edges of the phone cabinet doors were cut to accommodate the new pavement elevation on the floor of the cabinet.**
- 3. The increased potential for the sump room to flood was addressed by installing a small area drain in the top of the existing sump prior to filling it in with slurry. Discharge piping for this new drain was routed over the top of the foundation footing and into the side of the new sump.**
- 4. The additional catch basin that was to be installed at the end of the trench drain was not installed for lack of room.**
- 5. A new vent fan was not installed in the sump room; it was deemed unnecessary because the existing sump was abandoned in place.**
- 6. A third Xypex product (Megamix I) was applied to the trench drain surface to shorten the cure time for the Concentrate. To prepare the Megamix I compound, the contractor substituted SikaLatex R Concrete Bonding Adhesive for Xycrylic Admix at the recommendation of the manufacturer (Xycrylic Admix was not available).**
- 7. An old sump was discovered near the west retaining wall adjacent to the handicap parking stall. The sump was dewatered, filled in with slurry, and the metal cover was left in place. It was determined that the PVC riser that extends up the west retaining wall was the discharge line for this sump.**
- 8. Vertical concrete edges formed by saw-cutting were not ground to a taper before paving. Rather, the paving contractor (Calvac) laid Petromat over trench seams prior to paving.**

A summary of work performed each day of construction is included herein as Attachment A. This summary can be used to locate photographs or video of interest on the USB device.

Analytical Results for Samples Collected December 13, 2013

Analytical results for samples collected on December 13, 2013 are summarized in the table below.

Table 1. Sample results.

Sample ID	Units	TPHgas Result	Benzene Result
New Sump Water	ug/L (ppb)	1700	72
New Sump Soil-1	mg/Kg (ppm)	2.5	<0.005
New Sump Soil-2	mg/Kg (ppm)	31	<0.005
New Sump Soil-3	mg/Kg (ppm)	52	<0.025

Note: The location where each sample was collected is identified in field notes submitted by Blaine Tech Services, Inc., included herein as Attachment B. The Kiff Analytical report of sample results is included herein as Attachment C.

Sample results indicate that groundwater beneath the property at 20 E. 20th Avenue is still contaminated. It also appears as though levels of contamination increase in the general direction of the sump. Assuming that the pooled water that was analyzed accurately represents groundwater beneath the site, results also indicate that contamination levels have decreased since the elevator shaft was excavated in 2004. At that time, the level of TPHgas in groundwater was detected as high as 6,300 ug/L. Accordingly, results from the December 13, 2013 sampling event likely indicate that natural attenuation has occurred.

The State Water Board's Low-Threat Closure Policy

On May 1, 2012, the State Water Resources Control Board (State Water Board) adopted the Low-Threat Underground Storage Tank Case Closure Policy (Resolution No. 2012-0016), which became effective August 17, 2012. The policy is included herein as Attachment D. More information about the policy is available online at http://www.waterboards.ca.gov/ust/lt_cls_plcy.shtml.

According to page 2 of that policy, "...cases that meet the general and media-specific criteria described in this policy pose a low threat to human health, safety or the environment and are appropriate for closure pursuant to Health and Safety Code section 25296.10. Cases that meet the criteria in this policy do not require further corrective action and shall be issued a uniform closure letter consistent with Health and Safety Code section 25296.10."

Regardless of the stormwater system upgrade at 20 E. 20th Avenue, the State Water Board may determine that the former Chevron site located at 2009 S. El Camino Real in San Mateo meets policy criteria for a low-threat case, warranting its closure. The contamination levels measured in water and soil samples collected on December 13, 2013 do not appear to exceed concentrations identified in the policy that would prevent site closure. Either way, the upgraded stormwater infrastructure at 20 E. 20th Avenue will prevent hydrocarbon-contaminated groundwater from entering the system if it functions as designed.

Attachment F



Brain Waite
Project Manager
Marketing Business Unit

**Chevron Environmental
Management Company**
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6486
Fax (925) 549-1441
bwaite@chevron.com

Via Email (cice@co.sanmateo.ca.us)

Charles Ice, PG
Hazardous Materials Specialist
Groundwater Protection Program Lead
San Mateo County Environmental Health
2000 Alameda De Las Pulgas, Suite 100
San Mateo CA 94403

Re: Former Chevron Station 97866 – 2009 South El Camino Real, San Mateo, California
GPP Site # 110083

Dear Mr. Ice:

I am writing to follow up on our conversation of yesterday in which on behalf of Chevron Environmental Management Company (CEMC) I requested that San Mateo County Groundwater Protection Program (GPP) formally reopen the above referenced case. As you know, CEMC has been working under the oversight of the City of San Mateo to implement work at the neighboring property (20 E. 20th Avenue) to prevent groundwater from entering the storm drainage system and related sump at that property. CEMC, also under the oversight of the City, is engaging in confirmation sampling for the next year to confirm the effectiveness of this work. CEMC believes that it would be appropriate for GPP, as the Local Oversight Program, to be involved in this process, as well as to oversee any future assessment work, and to consider any future requests for closure. Currently all discharges from the sump at 20 E. 20th Avenue are discharged to the City's sanitary sewer collection, pursuant to a discharge permit, as was the case when GPP originally closed this case.

Thank you for your consideration of this request.

Sincerely,

Brian A. Waite
Project Manager

cc: Brandon Wilken, CRA

From: "Waite, Brian A" <BWaite@chevron.com>
To: Charles Ice <cice@smcgov.org>
CC: "Wilken, Brandon" <BWilken@croworld.com>
Date: 3/5/2014 12:30 PM
Subject: Former Chevron Station 97866 - 2009 South El Camino Real, San Mateo, CA GPP Site#110083
Attachments: Letter to Charles Ice 030514.pdf

Charles,

Thank you for taking the time to discuss this site with me yesterday. Attached you will find a letter requesting that San Mateo County Groundwater Protection Program formally reopen the above referenced case.

Thank you,

Brian A. Waite, P.G.
Project Manager
Chevron Environmental Management Company
Marketing Business Unit
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel 925-790-6486
bwaite@chevron.com<mailto:bwaite@chevron.com>

[Chevron car1]

Attachment G



San Mateo County
Health System

March 20, 2014

Brian Waite (bwaite@chevron.com)
Chevron Environmental Management
6111 Bollinger Canyon Road
San Ramon, CA 94583

SUBJECT: Former Chevron Station 9-7866, 2009 South El Camino Real, San Mateo

Dear Mr. Waite:

Thank you for the March 5, 2014 letter requesting San Mateo County Environmental Health Groundwater Protection Program (GPP) to reopen the case. Based on new information since the case was originally closed in January 2011, most notably the failure to comply with the sump management plan and addendum over the past three years, GPP is agreeing to reopen the case. GPP understands the responsible party has been working with the neighboring property owner and the city to deal with the ongoing discharge issue from the neighbor's sump.

Please submit a report of the activities that have occurred over the past three years, and still anticipated to occur in addressing the contaminants in the discharge from the sump until the discharge can be routed to the storm water system by **May 20, 2014**. Of note, a contingency must be proposed should the latest improvements to the sump system fail to allow the discharge from the sump to be connected to the storm water system.

Please also include a complete discussion of the elevator "wet" well and the weep holes in terms of sample concentrations, assessment of source, exposure pathway, and receptor, and any current or potential connection from these to the sanitary or storm drain system, in the report due by May 20, 2014. Any identified data gaps in the report or the discussion should be accompanied with a recommendation from the registered professional to address them.

Should you have any questions, please contact myself at (650) 372-6295.

Sincerely,

A handwritten signature in cursive script that reads "Charles Ice".

Charles Ice, P.G.
Groundwater Protection Program
San Mateo County Environmental Health

cc: Cheryl Prowell, RWQCB, cprowell@waterboards.ca.gov
Brandon Wilken, Conestoga-Rovers & Associates, bwilken@croworld.com

Environmental Health

2000 Alameda de las Pulgas, Suite 100, San Mateo, CA 94403

Phone (650) 372-6200 • Fax (650) 627-8244 • CA Relay 711 • Website www.smchealth.org

Health System Chief • Jean S. Fraser

Board of Supervisors • Dave Pine • Carole Groom • Don Horsley • Warren Slocum • Adrienne Tissier

Former Chevron 9-7866
March 20, 2014
Page 2 of 2

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Herman I Kalfen, Kalfen Law Corporation, kalfenlawoffice@earthlink.net