

THRIFTY OIL CO.

February 18, 2015

O.15542

Mr. Jerry Wickham
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Local #RO0000026
Global ID #T060010270

RE: **Former Thrifty Oil Co. Station #038/ Shell Station #13-5699**
5722 Broadway
Oakland, CA 94618

Subject: **Invitation to Comment- Potential Case Closure**

Dear Mr. Wickham:

In a letter dated February 5, 2015, the Alameda County Health Care Services (ACHCS) provided Landlord and Public Notification for the proposed Low-Threat Case Closure for Former Thrifty Oil Co. (Thrifty) Station #038/ Shell Oil Products US (Shell) Station #13-5699 located at 5722 Broadway, Oakland, CA (**Figure 1**). Shell has operated a gasoline service station at the site since June 1984, under lease from Thrifty, who is the owner of the property. Shell is the primary responsible party for the hydrocarbon contamination at the site.

Thrifty strongly disagrees with the conditions of the *Site Management Requirements* as outlined in the February 5, 2015 letter, which place numerous restrictions on future land use of the property owned by Thrifty. Within the next four years (at the termination of the current lease), Thrifty may change the use of the property. If this case is conditionally closed as proposed by the ACHCS, Thrifty will likely incur additional costs for site redevelopment, and would likely be forbidden to proceed with any potential residential development. For your convenience the Site Management Requirements are listed below:

1. *"This fuel leak case has been evaluated for closure consistent with the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy (LTCP). Elevated concentrations of petroleum hydrocarbons were detected in soil vapor beneath the site. Under the current land use as an active fueling station, the site is not required to meet media-specific criteria for vapor intrusion to indoor air. Therefore, case closure is granted for current commercial land use."*



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2. *If a change in land use to any residential or other conservative land use, or if any redevelopment occurs, Alameda County Health (ACEH) must be notified as required by Government Codes Section 65850.2.2. Due to potential for vapor intrusion to indoor air or future buildings, ACHED will re-evaluate the case upon receipt of approved development/construction plans.”*
3. *“Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation construction activities.”*

The San Francisco Regional Water Quality Control Board (RWQCB) commercial environmental screening levels (ESLs) for total petroleum hydrocarbon as gasoline (TPHg) and benzene are 2,500,000 $\mu\text{g}/\text{m}^3$ and 420 $\mu\text{g}/\text{m}^3$, respectively, and the residential ESL for TPHg and benzene are 300,000 $\mu\text{g}/\text{m}^3$ and 42 $\mu\text{g}/\text{m}^3$, respectively. According to the *Site Conceptual Model and Request for Low-Threat Closure Request* (SCM) dated December 22, 2014 and prepared by Conestoga-Rovers & Associates (Conestoga-Rovers) on behalf of Shell, the soil vapor concentrations detected during the September 2013 subsurface investigation significantly exceeded the RWQCB commercial and residential ESLs. TPHg and benzene were detected in soil vapor sample VP-1 at 210,000,000 $\mu\text{g}/\text{m}^3$ and 370,000 $\mu\text{g}/\text{m}^3$, respectively. Therefore, significant remediation and/or removal of the impacted soils would be necessary prior to any redevelopment of the site.

Soil vapor sample VP-1 was collected at approximately 3 feet below ground surface (bgs). According to the 3rd quarter 2014 report, groundwater depths at the site ranged between 4.18 feet below top of casing (btc) and 5.74 feet btc. Thrifty believes that the extremely shallow groundwater at the site creates an additional risk since soil vapors have only 4 to 5 feet in which to dilute (dissipate) before reaching the ground surface. The SCM indicated that shale bedrock was encountered during drilling at the site at depths ranging between 5 and 10 feet bgs and Thrifty believes that this consolidated layer could be resistant to the downward migration of petroleum hydrocarbon constituent which were released during fuel spills recorded at the site, and therefore could trap and concentrate these hydrocarbons in shallow soils (the top 5 to 10 feet).

The most recent groundwater monitoring event conducted on August 29, 2014, indicated maximum TPHg concentration of 3,900 $\mu\text{g}/\text{L}$, a maximum benzene concentration of 250 $\mu\text{g}/\text{L}$ and a maximum MTBE concentration of 96 $\mu\text{g}/\text{L}$ all in well S-2 which is closest well located to the adjacent Apartment building. The maximum historical TPHg, benzene and MTBE concentrations detected in well S-2 were 150,000 $\mu\text{g}/\text{L}$, 3,100 $\mu\text{g}/\text{L}$ and 59,000 $\mu\text{g}/\text{L}$, respectively. Since no offsite wells have been installed in association with this environmental case, there is no direct evidence to conclude that the plume has not migrated offsite. Therefore, dissolved-phase hydrocarbons could currently be impacting the groundwater beneath the adjacent apartment building. Groundwater grab samples collected from offsite soil boring location B-1 (located 35-feet directly south of the property and at the intersection of Broadway and Taft Street) on August 6, 2002 indicated that groundwater at this location had been impacted with MTBE at a concentration of 3,500 $\mu\text{g}/\text{L}$.

The result of subsurface soil investigations conducted at the site indicated maximum TPHg, benzene and MTBE concentrations of 1,300 mg/kg, 1.8 mg/kg, and 25 mg/kg, with a maximum boring depth of 15.5 feet bgs. Shell conducted some remedial actions at the site including groundwater extraction via vacuum truck, mobile dual-phase extraction (DPE), daily well purging, a temporary groundwater extraction unit, and pumping of groundwater from the tank pit and excavation of soils during the underground storage tank replacement activities. However no sustained source area remediation (i.e., operation of a permanent DPE system) was performed to ensure significant reduction in source area contamination. Given the absence of recent confirmation soil borings, the elevated hydrocarbon concentrations in the recent soil vapor samples indicate that significant soil contamination still exists beneath the site, which will require extensive mitigation to reduce contamination to acceptable human health levels in the event of the site redevelopment. Additionally, treatment of the impacted shallow groundwater beneath the site would be necessary during the dewatering operations, if excavation reaches the groundwater table.

The current lease at the site is scheduled to end on May 13, 2019, and at that time Thrifty may redevelop the site and change the land use from a service station to another form of commercial operation or to residential use. If closure is granted to Shell with the proposed Site Management Requirements, it is likely that Thrifty will incur significant additional costs during those redevelopment activities.

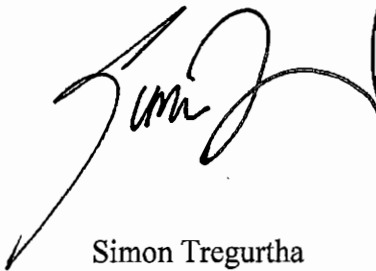
In addition to potential increased costs associated with redevelopment, the remaining elevated petroleum hydrocarbon concentrations detected in soil vapor represents a liability for Thrifty as this property is located within a residential area. Soil vapor concentrations detected in soil vapor borings VP-1 and VP-2 indicated that the contamination has migrated from the source area (the USTs and dispenser islands) to the edge of the property (a distance of at least 20-feet), and it is reasonable to assume that some further migration of the contamination associated with Shell's operation of the fuel service facility may occur in the future and impact surrounding residential properties. Thrifty believes that Shell should remain as the responsible party for potential future migration of hydrocarbon soil vapors, adsorbed-phase hydrocarbons and dissolved-phase hydrocarbons.

Thrifty respectfully requests that the ACHCS change the Site Management Requirements to include clean case closure for future residential and commercial land use. If the ACHCS is unwilling to grant the clean case closure, Thrifty respectfully requests that the ACHCS either maintain this case open until the subsurface conditions will meet the criteria required for unconditional closure, or designate Shell as the responsible party for the mitigation of any contamination encountered during future site redevelopment activities. Thrifty should not have to bear the financial burden of future site cleanup and associated liability as a result of Shell's unauthorized release(s) which have impacted the soil and groundwater beneath and adjacent to the site.

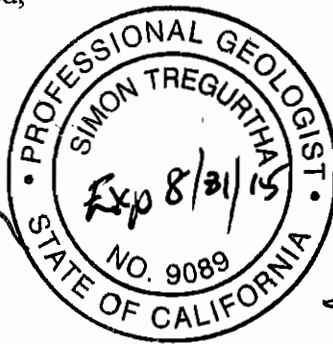
If you have any questions regarding this correspondence, please contact Mr. Simon Tregurtha at (562) 921-3581, Ext. 260 or Mr. Chris Panaitescu at (562) 921-3581, Ext. 390.

Respectfully submitted,

Prepared by:



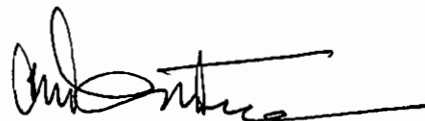
Simon Tregurtha
Professional Geologist No. 9089
Project Manager



Reviewed by:



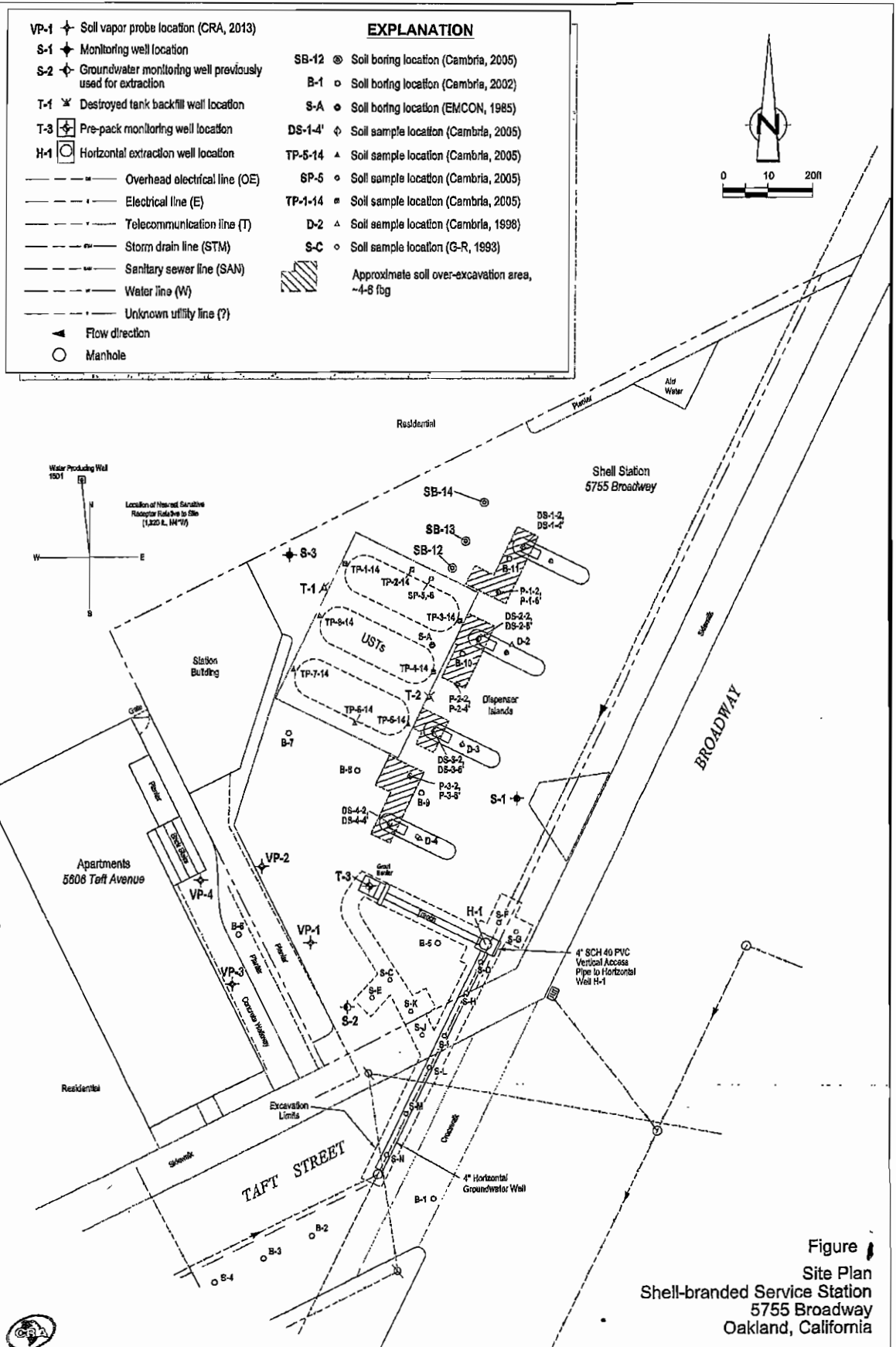
Larry Higinbotham
Professional Geologist No. 5497



Chris Panaitescu
General Manager
Environmental Affairs

cc: File
Mr. Perry Pineda, Shell Oil Products US
Mr. Barry Berkett, Executive Vice President, Thrifty Oil Co.

FIGURE



EXPLANATION	
VP-1	Soil vapor probe location (CRA, 2013)
S-1	Monitoring well location
S-2	Groundwater monitoring well previously used for extraction
T-1	Destroyed tank backfill well location
T-3	Pre-pack monitoring well location
H-1	Horizontal extraction well location
---	Overhead electrical line (OE)
---	Electrical line (E)
---	Telecommunication line (T)
---	Storm drain line (STM)
---	Sanitary sewer line (SAN)
---	Water line (W)
---	Unknown utility line (?)
▲	Flow direction
○	Manhole
SB-12	Soil boring location (Cambria, 2005)
B-1	Soil boring location (Cambria, 2002)
S-A	Soil boring location (EMCON, 1985)
DS-1-4'	Soil sample location (Cambria, 2005)
TP-5-14	Soil sample location (Cambria, 2005)
SP-5	Soil sample location (Cambria, 2005)
TP-1-14	Soil sample location (Cambria, 2005)
D-2	Soil sample location (Cambria, 1998)
S-C	Soil sample location (G-R, 1993)
[Hatched Area]	Approximate soil over-excavation area, ~4-8 fbg

Figure 1
 Site Plan
 Shell-branded Service Station
 5755 Broadway
 Oakland, California