

Mr. Keith Nowell  
Alameda County Environmental Health  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, CA 94502-6577

**RECEIVED**

**5:11 pm, Sep 17, 2012**

Alameda County  
Environmental Health

**Re: Former Exxon Station**

5175 Broadway  
Oakland, California  
ACEH File No. 139  
SFRWQCB Site No. 01-0958  
UST Fund Claim No. 3406

Dear Mr. Nowell:

I, Mr. Ernie Nadel, have retained Pangea Environmental Services, Inc. (Pangea) as the environmental consultant for the project referenced above. Pangea is submitting the attached report on my behalf.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report are true and correct to the best of my knowledge.

Sincerely,



Ernie Nadel  
Rockridge Heights, LLC



September 14, 2012

**VIA ALAMEDA COUNTY FTP UPLOAD**

Mr. Keith Nowell  
Alameda County Environmental Health  
1331 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

Re: **BASELINE ENVIRONMENTAL PROJECT SCHEDULE**  
5175 Broadway, Oakland, California, ACEH Fuel Leak Case No. RO0000139

Dear Mr. Nowell:

On behalf of Rockridge Heights, LLC, Pangea Environmental Services, Inc (Pangea) has prepared this *Baseline Environmental Project Schedule* as required by your Alameda County Environmental Health (ACEH) directive letter dated August 22, 2012. This letter provides the requested schedule and addresses other pertinent information in an effort to schedule a meeting with your agency in the very near future.

**INTRODUCTION**

As you review this information please understand that our primary objective at this time is outline a tentative timeline and program to regulatory case closure by the 4<sup>th</sup> Quarter 2013 (before construction). If the prospective purchaser is comfortable with the program/schedule and oversight commitments from the ACEH, then the property transaction will proceed. Several important issues pertaining to this project are presented below. Most importantly, we must *quickly* decide if the existing remediation system should be used to target any significant residual impact well before the winter rains commence. In that light, Pangea has conducted soil gas sampling and another groundwater monitoring event, and will present this additional data in the very near future to help with corrective action planning.

Therefore, Pangea respectfully implores you to schedule the requested meeting at for the week of September 24-28, 2012 after the new data will be available. Urgent scheduling of a meeting would help compensate for the longer than anticipated agency review time for recent workplans, which has significantly hampered site remediation efforts. The first review period involved approximately 5 months for the review (and verbal rejection) of the January 18, 2012 *Workplan for Enhanced Site Remediation*, which was intended as a short (30 to 60 day) rebound test and possible expansion of the existing DPE/AS remediation system. Additional review delay includes the current 2+ month review period for the July 16, 2012 *Soil Gas Sampling Workplan* (later amended within 3 days notice of an agreed-upon expansion) despite a verbal commitment on July 6 for a 2 to 3 week review period. Finally, our August 13, 2012 request for a meeting in early September 2012 resulted in an agency letter requiring additional information by September 19, 2012 before a meeting can be scheduled.

In summary, Pangea respectfully requests an agency meeting during the week of September 24-28, 2012. This will help facilitate resumption of the existing remediation system, if necessary to target any significant residual impact well before the winter rains commence. The system has been shutdown for 8 months while awaiting agency feedback and there is limited time this fall before the end of the dry season.

**PANGEA Environmental Services, Inc.**

1710 Franklin Street, Suite 200, Oakland, CA 94612 Telephone 510.836.3700 Facsimile 510.836.3709 [www.pangeaenv.com](http://www.pangeaenv.com)

## **GEOTRACKER UPLOADS**

Technical comment #2 of your August 22, 2012 letter requires uploading of missing information to the SWRCB Geotracker database. In response to your letter, Pangea recently uploaded all information generated during our involvement on the project. For items from 2004 and earlier, Pangea has contacted the former consultant(s) in an effort to obtain and upload other missing information. Although this information is less relevant than more recent data, Pangea will continue to pursue this information. The lack of uploading of this older data should not affect meaningful discussion about this site.

## **BASELINE ENVIRONMENTAL PROJECT SCHEDULE**

Technical comment #1 of your August 22, 2012 letter requests a project schedule. Our overall schedule goal is to obtain regulatory case closure by 4<sup>th</sup> Quarter 2013, in advance of the construction start date of 1<sup>st</sup> Quarter 2014. Our tentative project schedule includes the following base items:

### Base Project Schedule

- Sep 12, 2012– Complete Soil Gas Sampling to Evaluate Post-Remediation Site Conditions
- Sep 13, 2012– Perform a Third Post-Remediation Quarterly Groundwater Monitoring Event
- Sep 21, 2012– Lab Data from Soil Gas and Groundwater Monitoring Available for Discussion
- Sep 24-28, 2012–Meet with ACEH to Discuss Future Site Plans and Closure Pathway
- Fall 2012– Completion of Property Transaction for 5175 Broadway
- Fall 2012– Start Additional Project Schedule #1 or #2 below (based on new lab data)
- Summer 2013– Architectural Review and Approval
- 4<sup>th</sup> Qtr 2013– Building Permit
- 1<sup>st</sup> Qtr 2014– Construction Start (Assuming NFA)
- 3<sup>rd</sup> Qtr 2015– Construction Completed (16 month construction duration)
- 3<sup>rd</sup> Qtr 2015– Take Out Loan to repay Construction Loan
- 1<sup>st</sup> Qtr 2016– Occupancy Permit

Additional Project Schedule #1 – Optimistic Scenario (Assumes No Further Active Remediation Required)

This optimistic project schedule assumes that the upcoming soil gas and groundwater monitoring reports indicate that the residual impact does *not* pose a significant risk to human health via vapor intrusion.

- Fall 2012– Complete Property Transaction following Agency Interaction
- Dec 2012– Perform a Fourth Post-Remediation Quarterly Groundwater Monitoring Event
- 1<sup>st</sup> Half 2013– ACEH Issues No Further Action Letter** following the 1 Year of Verification Monitoring
- 1<sup>st</sup> Half 2013– Decommissioning/Removal of Site Wells
- If Necessary*
- 2013 – Submit Risk Management Plan for Future Site Earthwork during Development
- 2014 – Installation of a Vapor Intrusion Membrane/Vapor Collection System during Construction

Additional Project Schedule #2 – Further Remediation (Assumes Required for Residual ‘Hot Spots’)

This optimistic project schedule assumes that the upcoming soil gas and groundwater monitoring reports indicate that the residual impact *could* pose a significant risk to human health via vapor intrusion.

- Fall 2012– Complete Property Transaction following Agency Interaction
- Oct-Dec 2012– Resume remediation (DPE/AS) as necessary to target any residual hot spots
- End Dec 2012– Perform 1<sup>st</sup> Groundwater Monitoring following the Resumed Remediation (Evaluate need for other contingencies such as hot spot excavation)
- Mar 2013– Perform 2<sup>nd</sup> Groundwater Monitoring following the Resumed Remediation
- Jun 2013– Perform 3<sup>rd</sup> Groundwater Monitoring following the Resumed Remediation
- Sep 2013– Perform 4<sup>th</sup> Groundwater Monitoring following the Resumed Remediation
- Fall 2013– ACEH Issues No Further Action Letter** (follows 1 Year of Verification Monitoring)
- Fall 2013– Decommissioning/Removal of Site Wells
- If Necessary*
- 2013 – Submit Risk Management Plan for Future Site Earthwork during Development
- 2014 – Installation of a Vapor Intrusion Membrane/Vapor Collection System during Construction

## **KEY ISSUES FOR DISCUSSION DURING MEETING**

Here is a brief discussion of key issues we would like to better understand during our meeting.

### **1. Management of Potential Vapor Intrusion into Indoor Air is the Only Significant Concern**

Based on our review of site information, the potential for vapor intrusion into indoor air is the driving force for future corrective action at this site. Shallow site soil down to approximately 10 ft (the unsaturated zone) is not significantly impacted by hydrocarbons. The groundwater plume is sufficiently characterized, stable and shrinking, with no known nearby sensitive receptors that use groundwater. Site remediation has included significant excavation of source area soil and over 12 months of aggressive dual phase extraction and air sparging for insitu treatment of residual mass. The planned development will be at grade and will not involve any significant excavation.

Therefore, the primary concern is the potential for hydrocarbon vapor intrusion into the planned development or nearby residents. Sampling of subslab gas and shallow soil gas completed on September 13, 2012 will provide important additional assessment data regarding the potential for vapor intrusion.

### **2. Duration of Post-Remediation Groundwater Monitoring**

ACEH has previously indicated that 1 full year of post-remediation monitoring is required, including after any short-term resumption of site remediation. During conversations with the Regional Board and State Board these agencies suggested a 1 year monitoring period is more of a general guideline, and that site-specific information regarding plume stability, plume shrinkage and sensitive receptors can suggest shorter monitoring can be acceptable. For the following reasons Pangea feels that extended groundwater monitoring should not be a firm requirement at this site: (1) the contaminant plume was stable and shrinking before active remediation, (2) active remediation removed considerable mass that has dramatically reduced hydrocarbon concentrations in groundwater with limit concentration rebounding, and (3) there are no nearby sensitive receptors that use groundwater, and (4) soil gas data is more relevant for this site.

Pangea respectfully submits that monitoring of soil gas concentrations is a more appropriate for evaluating subsurface conditions with respect to issues of concern. The September 13, 2012 sampling data will provide additional soil gas monitoring data for this site and the adjacent sites. This data augments prior soil gas data from before active insitu site remediation. If necessary, additional monitoring can be performed on the recently installed subslab and soil gas probes. Also if necessary, additional soil gas probes can be installed if additional lateral or vertical soil gas assessment is appropriate.

### **3. Closure with Use of Vapor Barrier and/or Collection System**

ACEH previously indicated that if a vapor barrier/subslab vapor collection system was relied upon as an engineering control, regulatory case closure could *not* be granted until completion of satisfactory monitoring of the vapor barrier/collection system. The Low Threat UST Closure Policy (LTCP) contains new information about closing cases while relying on engineering controls if 'the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health'. An important factor is the planned site use, which includes no subgrade development.

Additionally, upcoming soil data will help determine if a 'bioattenuation zone' is present at the site as defined by Appendix 3, Scenario 3 of the LTCP. If a bioattenuation zone for hydrocarbon vapors is present sufficient under certain conditions then the case closure can be granted (upon meeting other criteria). This date will evaluate if oxygen concentrations in shallow soil gas and subslab gas are greater or less than 4%. For cases with oxygen >4% in soil gas, benzene concentrations in groundwater should be <1,000 ug/L and groundwater should be no shallower than 5 ft. For cases with oxygen <4% and benzene concentrations in groundwater above >100 ug/L, benzene concentrations should be <1,000 ug/L and groundwater can be as shallow as 10 ft. For both scenarios TPHg in soil should be <100 mg/kg, which is the case at our site. Again, upcoming data will help determine if a 'bioattenuation zone' is present at this site.

#### **4. Contingency Plans during Site Construction**

We would like to discuss the following potential items. Will ACEH require a Risk Management Plan during future site earthwork during development, to manage any hydrocarbon encountered soil and/or groundwater? Under what conditions would ACEH require installation of a vapor intrusion membrane/vapor collection system during building construction? If soil excavation (or other short-term remediation) is performed to target any residual hydrocarbon 'hot spots', how would this affect the construction schedule and closure process?

#### **5. Low Threat UST Closure Policy**

We would like to discuss when the ACEH plans to review this site with respect to the new LTCP. Any initial feedback would be appreciated. We do not wish to delay the meeting to await formal review of LTCP criteria.

#### **6. ACEH Oversight Process**

We would like to discuss ACEH procedures for plan review, case oversight, and response time to facilitate development and case closure given the presented project schedule information above. The prospective purchaser seeks a level of comfort for the process and requirements.

We also understand that the ACEH recently transferred regulatory oversight for 100 cases back to the Regional Water Quality Control Board (RWQCB). Does ACEH think it may be appropriate to transfer oversight for this case to the RWQCB?

#### **CLOSING**

Pangea respectfully requests an agency meeting during the week of September 24-28, 2012. This will help facilitate resumption of the existing remediation system, *if necessary* to target any significant residual impact well before the winter rains commence. Thank you in advance for your assistance on this time-sensitive project. If you have any questions, please email me or call me at (510) 435-8664.

Sincerely,  
**Pangea Environmental Services, Inc.**



Bob Clark-Riddell, P.E.  
Principal Engineer

Baseline Environmental Project Schedule  
5175 Broadway, Oakland, CA  
September 14, 2012

cc: Ernie Nadel, Rockridge Heights, LLC  
SRM Development