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January 22, 2015

Mr. Gary Snellgrove
Louisiana Department of Natural Resources
617 North Third Street, LaSalle Building
Baton Rouge, Louisiana 70802-5431

RE: 2010-2014 Project Update
State of Louisiana & Vermilion Parish School Board vs. Louisiana Land & Exploration,
et al.
DNR OC Legacy File No. 015-037
Case No. 82,162, Div. D
15th Judicial District Court
Vermilion Parish, Louisiana

Dear Mr. Snellgrove:

This letter will update prior communications MP&A has had with the Louisiana Department of Natural Resources (LDNR) concerning UNOCAL's ongoing evaluation, investigation, and remediation of the referenced property in Vermilion Parish.

Beginning in 2010 and continuing through 2014 the following remediation activities have been or are proposed to be conducted on the property:

1. In conjunction with UNOCAL, Peak Energy, L.L.C., the current operator on the lease, conducted a site remediation program in 2010-2011 to remove abandoned oilfield structures, equipment, pilings, and flowlines. A more detailed description of the work is provided in the June 5, 2014 MP&A Supplemental Data/Expert Report that is included on the enclosed CD provided as Attachment A. The cost of completing this work was approximately \$2.0 million dollars.

2. MP&A, on behalf of UNOCAL, performed remediation of a former pit location in 2014 to address elevated concentrations of Total Petroleum Hydrocarbons (TPH) and Oil and Grease (O&G) in the SED-15 area. The following activities were completed:
 - Obtained Coastal Use Permit P20140606 dated July 24, 2014 from the LDNR Office of Coastal Management;
 - Obtained United States Army Corps of Engineers (USACOE) permit MVN-2014-01579-WOO dated July 29, 2014;
 - Performed pre-closure sampling for the purpose of delineating the removal area for pit closure;
 - Excavated former pit location, loaded material to barges, transported to Ecoserve in Intercoastal City, Louisiana for disposal, performed confirmation sampling, backfilled area, and planted grass seed with protective matting;
 - A total of approximately 4,100 barrels of material was excavated, transported offsite and disposed from the pit closure activities; and,
 - The cost of completing this work was approximately \$700,000 dollars.

3. MP&A, on behalf of UNOCAL, proposes to conduct three years of quarterly groundwater monitoring to gather additional data to more comprehensively document that the low parts per billion (ppb) level benzene concentrations are attenuating and/or stable and that the benzene plume is not expanding. A summary of the proposed groundwater monitoring plan is provided in Attachment B. MP&A estimates the cost to conduct the groundwater monitoring is approximately \$300,000 dollars.

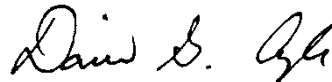
The June 5, 2014 MP&A Supplemental Data/Expert Report on the enclosed CD presents a contingency plan for active remediation of the groundwater in the shallow sand zone (approximately 40-60 feet below the ground surface) due to the presence of benzene above the EPA Maximum Contaminant Level (MCL). However, MP&A does not believe that this groundwater remediation is necessary due to the natural presence of elevated concentrations of metals, salts and sulfate in the groundwater that render the water non-drinkable without treatment. It is our understanding that no one on the property is drinking the groundwater from the zone. Nevertheless, if the LDNR ultimately determines that remediation of the groundwater to address the low, ppb concentrations of benzene detected in the naturally salty shallow sand zone is required, we have provided for that contingency.

We have also provided you with ecological and human health risk assessments for the property that were conducted by other experts and these reports have concluded that the current condition of the property does not pose an unacceptable human health or ecological risk.


Please contact us if you have any questions.

Sincerely,

MICHAEL PISANI AND ASSOCIATES, INC.



David G. Angle, P.G., CGWP



Michael E. Pisani, PE

Enclosure

cc: Mike Phillips, KeanMiller
Carol Wood, King & Spalding
Will Coenen, Talbot, Carmouche, & Marcello

**Electronic CD – June 5, 2014 MP&A Supplemental
Data/Expert Report**

Attachment A

*Vermilion Parish School Board (VPSB) Property, Section 16 T15S, R01E
East White Lake Oilfield
Vermilion Parish, Louisiana*

Groundwater Monitoring Plan

Attachment B

*Vermilion Parish School Board (VPSB) Property, Section 16 T15S, R01E
East White Lake Oilfield
Vermilion Parish, Louisiana*

Groundwater Monitoring Plan

*Vermilion Parish School Board (VPSB) Property, Section 16 T15S, R01E
East White Lake Oilfield
Vermilion Parish, Louisiana*

1. MP&A proposes to install 3 additional shallow monitoring wells to a depth of approximately 40-60 feet below the ground surface/top of surface water to supplement the three existing, properly constructed permanent monitoring wells. The proposed and existing MP&A monitoring well locations are shown on Figure 1. Due to the remote site setting, i.e. only access is via boat; these wells will be installed with a barge-mounted geoprobe rig equipped with dual tube sampling equipment and the appropriate sized well-setting barrels.
2. Each small diameter monitoring well will be constructed of either ¾ or 1-inch PVC casing and a 10-foot long well screen. Each well will be screened in the top of the sand zone at depths of approximately 40 to 60 feet below the ground surface like the existing three wells. The stickup for each well will be extended approximately 3-feet above the ground surface/top of water and two or four-inch diameter PVC protective casings will be installed around each well. Installation and completion of each will follow the procedures outlined in the LDEQ/LDOT Construction of Geotechnical Boreholes and Groundwater Monitoring Systems Handbook, dated December 2000.
3. Each monitoring well will be properly developed and purged prior to sampling. Groundwater samples will be collected using low flow purging and sampling techniques utilizing a peristaltic pump and dedicated polyethylene tubing. Each groundwater sample will be collected in laboratory supplied jars and analyzed for benzene, toluene, ethylbenzene, xylene(s) (BTEX), barium, chloride, and total dissolved solids (TDS) by Gulf Coast Analytical Laboratory (GCAL), a Louisiana Environmental Laboratory Accreditation Program (LELAP) approved laboratory.
4. Soil residuals and well development and purge water will be containerized and properly disposed.
5. Each new and existing MP&A monitoring well will be surveyed by a Louisiana-licensed professional surveyor.
6. Water levels will be measured in each well using an electronic water level indicator during each quarterly sampling event.
7. The monitoring wells will be sampled on a quarterly basis for three years. A brief letter report will be submitted to the LDNR following receipt of the final analytical laboratory report for each sampling event. The letter report will include tabulated summaries of the water level measurements and sampling results, a potentiometric surface map and figure displaying the quarterly data trends.
8. MP&A proposes to conduct a review of each four quarters of data on an annual basis and provide any additional interpretations/recommendations in the 1st quarterly report following the completion of each four quarters of monitoring.