



May 1, 1992

Mr. Jeff Johnson  
Mobile Labs, Inc.  
5327 Wingfoot Drive  
Bakersfield, California 93306

NKJ#92005/1

RE: Abandoned Gas Station  
2345 East 14th. Street  
Oakland, California  
GROUNDWATER MONITORING REPORT

Dear Mr. Johnson,

Per your verbal request, NKJ Environmental Monitoring visited the above referenced site in order to conduct a groundwater sampling program. This letter report presents the findings of the groundwater monitoring performed during the site visit.

**Groundwater Monitoring**

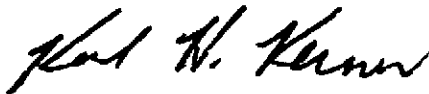
On April 16, 1992 each site well (see Figure 1 attached) was inspected and the depth to groundwater/product determined by NKJ personnel. An Oil Recovery Systems interface probe was used for depth measurements. This data is included in Appendix A. Depth to groundwater beneath the site ranged from 14.14 to 16.66 feet below ground surface. In addition, floating product was noted on the water table in all three wells ranging in thickness from about 0.16 to 5.12 feet. At the time of reporting, the surveyed well elevations were not available, therefore, the flow direction across the site was not determined. In addition, no groundwater sampling was conducted due to the presence of floating product.

## Recommendations

Significant free product was noted on the water table in the three site wells and mitigation measures should be accomplished immediately. As a minimum, manual product removal should be accomplished and bail down tests performed to determine the removal rates of the product from the underlying aquifer. Ideally, a temporary automated removal system should be installed at the site to accelerate removal. Finally, additional site characterization is needed to determine the vertical and lateral extent of hydrocarbon contamination at the site. Table 1 attached presents a cost estimate to conduct manual product removal and installation of an automated skimming system.

If you have any questions, please contact me at (714) 963-6811.

Have a Safe Day,



Karl H. Kerner, P.E.  
Project Manager  
NKJ Environmental Monitoring





**TABLE 1**  
**Estimated Costs For Product Removal**

Quantity	Description	Unit	Total
<b>OPTION 1 - Manual Product Removal/Bail Down Tests</b>			
16 hrs	Technician - Weekly handbailing/pumping of product from three(3) site wells	32.00	512.00
2 hrs	Engineer - Data interpretation, reduction and monthly tabulation/reporting	55.00	110.00
1	Monthly Equipment Charges	115.00	115.00
240	Milage	0.36	86.40
<b>TOTAL, monthly cost</b>			<b>823.40</b>
<b>OPTION 2 - Installation of Automated Product Skimmer</b>			
1 ea.	Equipment - Clean Environment Engineers 2-inch product skimmer with 100 ft. of hose, controller, security box and tank full shut-off assembly.	9000.0	9000.0
1 ea.	Equipment - 2.5 hp compressor	450.00	450.00
--	Subcontractor - Electrician for wiring compressor	120.00	120.00
15 hrs	Technician - Installation and start-up of skimmer system	35.00	525.00
4 ea.	Equipment - 55 gallon D.O.T approved drums and one overpack containment drum	45.00	180.00
<b>TOTAL, Installation</b>			<b>10275.0</b>
12 hrs.	Technician - weekly monitoring and maintenance of skimmer systems, data collection	32.00	384.00
2 hrs.	Engineer - monthly data tabulation and reporting	55.00	110.00
1 ea.	Equipment - Monthly ORS probe, milage	100.00	100.00
<b>TOTAL, monthly O &amp; M</b>			<b>594.00</b>