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ENVIRONMENTAL
PROTECTION

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BSK JOB NO. 04-40-0163

Mr. Randall E. Nahas
R.T. Nahas Company
20630 Patio Drive
Castro Valley, California 94546

Subject: Addendum to Revised Corrective Action Plan
Unocal 76 Service Station
20405 Redwood Road
Castro Valley, California

Dear Mr. Nahas:

BSK & Associates, Inc. (BSK) is pleased to present this Addendum to the Revised Corrective Action Plan (RCAP) for the Unocal 76 Station located at 20405 Redwood Road in Castro Valley, California. The original RCAP, dated June 14, 1996 was prepared by Philip Environmental.

The purpose of this Addendum is to:

- Provide cost controlling limits to the remedial activities which are scheduled to occur in the near future;
- Establish that the remediation goals presented in the Revised Corrective Action Plan are adequate to gain case closure without building restrictions by Alameda County Department of Environmental Health (ACDEH);
- Provide an additional method (Tier 3, risk assessment) for evaluating the risks associated with residual petroleum hydrocarbons which will remain in the subsoils at the site;

This Addendum was prepared after consultation with Mr. James deGeorgio of the California State Water Resources Control Board, Underground Storage Tank Cleanup Fund (USTCF). The cost controlling limits will not interfere with the final goal of the remediation activities, which is, case closure without building restrictions by Alameda County Department of Environmental Health.

SOIL REMEDIATION LIMITS

The RCAP specified that the soils at the site and south of the site be excavated to remove and remediate soil which contains benzene levels above 5.0 mg/kg and groundwater which contains benzene levels above 500 ug/L. In order to limit the amount of excavated soil, contaminated soil removal and excavation will be limited to 1000 cubic yards of contaminated soil. **The limit will not apply to soil which is obviously saturated with petroleum hydrocarbons.**

REMEDIATION GOALS

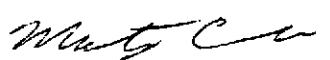
The overall goal of the remediation of the soil and groundwater at the site is to restore the property to the original land use which is a commercial developed property. The remediation goals presented in the Revised Corrective Action Plan are based upon an excess cancer risk level of 1×10^{-4} resulting from an exposure due to inhalation of vapors from soil and groundwater into buildings. We recommend that, prior to remediation activities, the RCAP and this addendum be reviewed by the risk assessment department at ACDEH. It is prudent to determine prior to remediation that the level of risk proposed in the RCAP is acceptable and that case closure without building restrictions will be granted by Alameda County Department of Environmental Health.

TIER 3 RISK ASSESSMENT

If the remediation is limited due to imposed economic limits (up to 1,000 cubic yards of contaminated soil removal) which would result in residual contamination above an acceptable risk, then a Tier 3 Risk Assessment will be required. The Tier 3 Risk Assessment will be based on conducting soil vapor flux measurements at the site which would provide an estimation of the actual rate of benzene migration through the subsurface soils to air within the atmosphere mixing zone. If the Tier 3 Risk Assessment results in an acceptable risk then case closure will be granted by ACDEH. If the results of the Tier 3 indicate that further remediation is required then the costs of additional remediation will be justifiable to the California State Water Resources Control Board Underground Storage Tank Cleanup Fund.

BSK is pleased to continue to be of service to you during this project. If you have questions concerning the contents of this Addendum, please do not hesitate to contact us.

Respectfully submitted,
BSK & Associates



Martin B. Cline, R.G.
Geologist
R.G. No. 6244



Alex Y. Eskandari, P.E.
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MBC/AYE:

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Distribution: R.T. Nahas Company (2 copies)

Scott Seery
Alameda County Department of Environmental Health

James deGeorgio
California State Water Resources Control Board