



ENVIRONMENTAL GEOSCIENCES ENGINEERING, INC.
a division of Water Resource Associates, Inc. • Phoenix, AZ

September 18, 1991

Mr. Lester Feldman
Regional Water Quality Control Board
2101 Webster Street
Oakland, CA 94612

RECEIVED
SEP 20 1991

VIA HAND DELIVERY

Subject: Request for Case Closure, 21450 Mission Blvd., Alameda County
(unincorporated), CA

Dear Mr. Feldman:

Environmental Geosciences Engineering, Inc. (EGE) has assumed the role of technical consultant for Pacific Trust Company regarding closure of 21450 Mission Blvd., Hayward, California. EGE is requesting your personal review and subsequent authorization of this petition for closure of the above referenced LUFT site. While we surmise that the RWQCB is inundated by such requests and must prioritize case load, please be informed that the continued absence of case closure constitutes a grave obstacle to the execution of the business duties and obligations of our client, Pacific Trust Company of San Jose, California. Pacific Trust has indicated that any further delay beyond September 30, 1991 in obtaining site closure will seriously impede legal resolution and release of the trust property.

LOCAL IMPLEMENTING AGENCY INVOLVEMENT

A request for case closure was submitted to the LIA at the completion of the most recent characterization phase. The LIA indicated that "the San Francisco Bay Regional Board may allow closure in cases such as yours" (Pacific Trust) "without installation and monitoring of wells when either or both conditions listed below exist:

1. A continuous aquitard (soil layer impermeable to groundwater) of at least five feet thickness has been shown through boring log data to exist between the deepest known soil contamination and first groundwater.
2. Deepest known soil contamination and first groundwater are separated be a distance of twenty feet."

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Both of these conditions have been met. Soil boring data has illustrated that the site is underlain by a five foot thick clay aquitard, beneath which first encountered groundwater within a confined aquifer is present with a piezometric surface greater than the confining horizon (e.g., pressure head due to regional confining conditions); and 2) the deepest known soil contamination present at 27 feet, identified by commencement of nondetectable concentrations at 30 feet - verified from soil analytical data from two separate boreholes - overlies the upper horizon of the confining layer by a vertical separation of 25 feet. These conditions are illustrated in Plate 1 (Attachment A).

We are concerned that the LIA has not recognized these conditions to be true for the site despite the presentation of supporting technical documentation, and are hopeful that the LIA merely neglected to reference past site data. As a matter of record, it is our professional judgement that the enormous expenditure of funds and technical effort to date stands in significant disproportion to the potential risk, if any, that could possibly be construed to the beneficial waters of the State under even worst case assumptions. Because the ACHCSA has steadfastly maintained that they are merely following the policy guidelines of the RWQCB, we are requesting that a representative of the RWQCB with sufficient technical background and authority bring this matter to a close in an expedited fashion.

BASIS FOR PETITION

A thorough analysis of site conditions has been presented in at least five previous documents [C.M. French, R.G. (1990); EIRRA Consultants (1990 and 1991 a,b,c). The opinions and conclusions of the previous documents provide the technical basis for this petition for closure, as discussed previously (EIRRA, 1991 c):

- 1) As previously described in the letter reports of 27 January and 14 June 1991 (EIRRA, 1991a and c), the average measured concentration of 67 ppm most likely represents a residual quantity well below the retention capacity of site soil (estimated to be in excess of 1,000 ppm). The potential for migration is extremely low because 1) the source has been removed, precluding further downward propagation, 2) the site and vicinity are paved, precluding infiltration and remobilization and 3) the subsurface conditions include the presence of dry, coarse grained deposits interbedded with moist fine grained deposits, which act as a natural barrier to vertical migration in the vadose zone due to interfacial capillary barrier effects (EIRRA, 1991a, referencing U.S. EPA, 1985).
- 2) With reference to Plate 2 of Attachment A (EIRRA, 1991c), it is demonstrated that



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groundwater is located at a depth of 61 feet below grade and is separated from the overlying unsaturated zone by a five foot thick confining clay layer. The underlying aquifer is under a positive pressure head which equals or exceeds the upper elevation of the clay confining horizon (e.g., upward gradient). Both the presence of the clay aquitard and the upward pressure differential preclude any possible migration into the confined aquifer.

3) The average measured residual concentration in soil (69 ppm) and known physicochemical behavior of the contaminant of concern preclude significant impact to the waters of the state. It has previously been calculated that the amount of residual contamination present in site soil constitutes a total volume of 1.0 gallons of product (EIRRA, 1991c). The volume of the source was minimal to begin with, being derived from an eighty (80) gallon tank which still contained product after a period of thirty years. This volume is compared to typical tank volumes of 500 to 20,000 gallons. From a physicochemical standpoint, the hydrocarbon is readily biodegradable.

4) The residual contaminant concentrations are not likely to have any significant risk with respect to human health or the environment. For impact to occur, the contaminant must travel from the source, through the environmental medium, to a receptor. It has been demonstrated that contaminant transport is not likely to occur.

5) The site is located within a designated groundwater basin. It has however been demonstrated in previous discussions and on the basis of available data that the past, present and future beneficial uses of water have not and will not be impacted by the small quantity of hydrocarbon remaining in site soil. Application of Table 2-1 from the LUFT manual (Attachment A) (State of California, 1989) indicates that the maximum allowable level for diesel under site conditions is 1,000 ppm. The LUFT table was designed to permit estimating the concentrations of TPH that can be left in place without threatening groundwater. The amount of hydrocarbon remaining in place is less than one-tenth the referenced amount.

SUMMARY AND CONCLUSIONS

Technical documentation collected to date and application of State of California criteria have clearly demonstrated that the residual amount of contaminants in site soil do not constitute a meaningful risk to beneficial uses of waters of the State. In addition, both criteria required by the ACHCSA for case closure, referenced above, have been met. By application of sound technical judgement and with reference to applicable State guidelines, it is our professional opinion that the burden, including costs, of further



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reporting at this site bear no reasonable relationship to the need for the reporting and the benefits to be obtained from the reporting [Porter Cologne Water Quality Control Act, §13267 (b)]. It is further our opinion, given the absence of risk to beneficial uses, that no further corrective action can be identified which will achieve an equal or greater water quality benefit taking into consideration technical practicality and cost (CCR Title 23, Section 2835 (b) [DRAFT]).

On the basis of these professional findings and in order to provide Pacific Trust the ability to discharge its legal obligations, it is respectfully petitioned that this LUFT file be effective September 30, 1991.

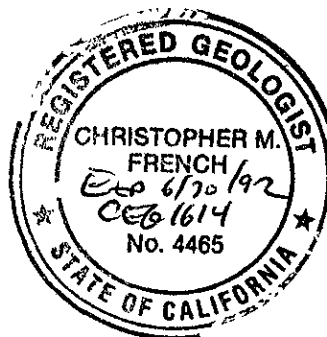
Should you have any questions, please call.

Very truly yours,

ENVIRONMENTAL GEOSCIENCES ENGINEERING, INC.


Christopher M. French, C.E.G., R.E.A.
Principal Scientist


Mr. Jim Burgard, P.E.
Vice President



CMF/JB/

Attachments (2)

cc: Mr. Don Dalke, RWQCB
Mr. Len Overholser, Pacific Trust
Mr. Rafat Shahid, ACHCSA
Mr. Gil Jenson, Alameda County District Attorney's Office



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REFERENCES

C.M. French, R.G. 1990. Underground Storage Tank Closure Report, Hayward Motors, 21450 Mission Blvd., Alameda County, California. Letter Report dated October 2, 1991

EIRRA Consultants. 1990. Response to ACHCSA Comments Regarding Underground Storage Tank Closure Report, Hayward Motors, 21450 Mission Blvd., Alameda County, California. Letter Report dated December 18, 1991.

EIRRA Consultants. 1991a. Letter to ACHCSA Regarding 21450 Mission Blvd., Alameda County (unincorporated), California. Letter Report dated February 27, 1991.

EIRRA Consultants. 1991b. Work Plan for Vertical Definition of Hydrocarbon in Soil, Hayward Motors, 21450 Mission Blvd., Alameda County, California. Letter Report dated April 12, 1991.

EIRRA Consultants. 1991c. Supplemental Investigation, Hayward Motors, 21450 Mission Blvd., Alameda County (unincorporated), California. Letter Report dated June 14, 1991.

State of California. 1989. LUFT Manual, Leaking Underground Fuel tank Task Force, revised May 5, 1989.

U.S. EPA. 1985. Protection of Public Water Supplies from Ground-Water Contamination. EPA/625/4-85/016. Center for Environmental Research Information. Cincinnati, OH.

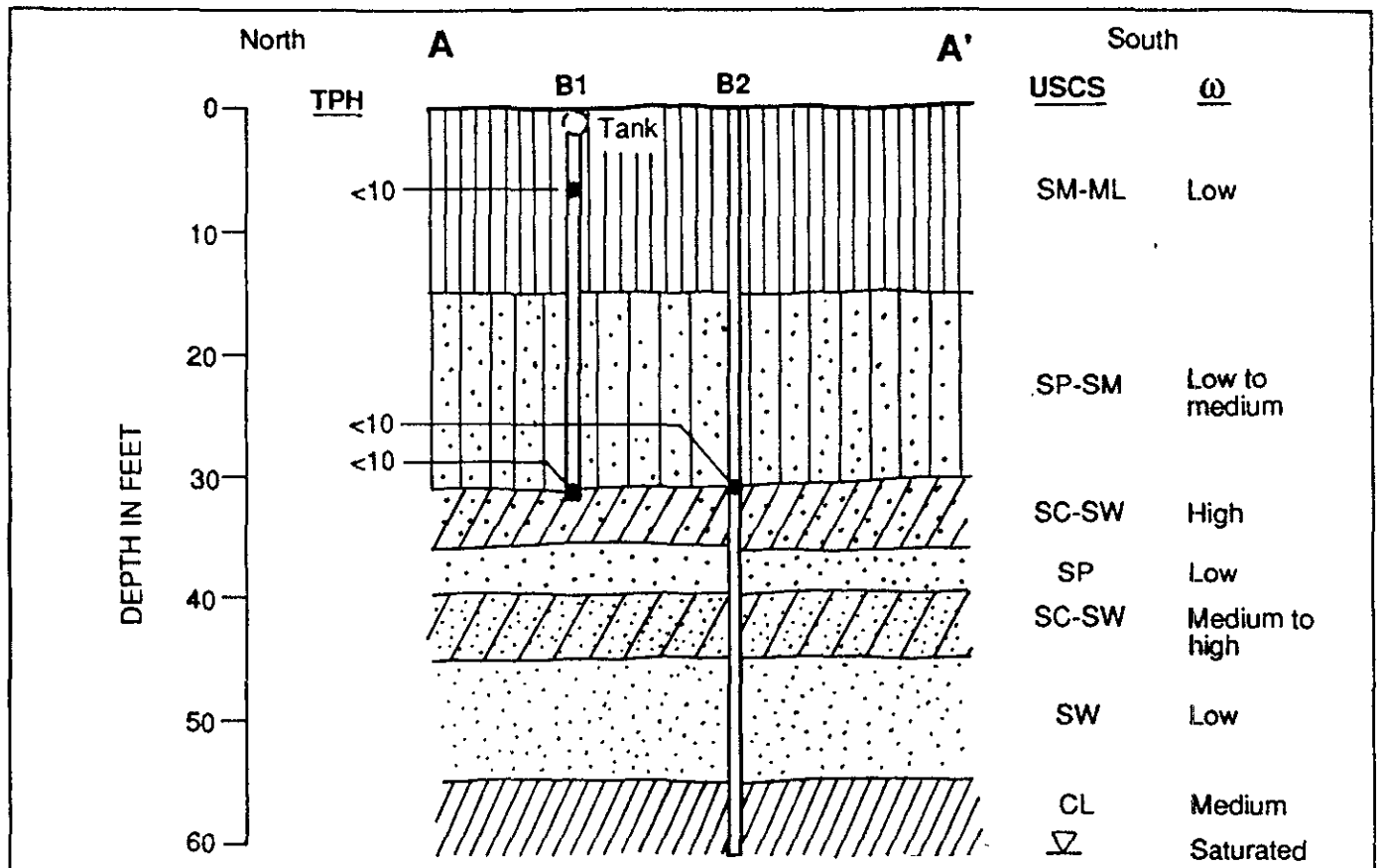
ATTACHMENT A

Table 2-1
Leaching Potential Analysis for Gasoline and Diesel
Using Total Petroleum Hydrocarbons (TPH)
and Benzene, Toluene, Xylene and Ethylbenzene (BTX&E)

The following table was designed to permit estimating the concentrations of TPH and BTX&E that can be left in place without threatening ground water. Three levels of TPH and BTX&E concentrations were derived (from modeling) for sites which fall into categories of low, medium or high leaching potential. To use the table, find the appropriate description for each of the features. Score each feature using the weighting system shown at the top of each column. Sum the points for each column and total them. Match the total points to the allowable BTX&E and TPH levels.

SITE FEATURE	S	SCORE	S	SCORE	S	SCORE
	C	10 PTS	C	9 PTS	C	5 PTS
	O	IF CON-	O	IF CON-	O	IF CON-
	R	DITION	R	DITION	R	DITION
	E	IS MET	E	IS MET	E	IS MET
Minimum Depth to Ground Water from the Soil Sample (feet)		>100	9	51-100		25-50\1
Fractures in subsurface (applies to foothills or mountain areas)	10	None		Unknown		Present
Average Annual Precipitation (inches)		<10	9	10-25		26-40\2
Man-made conduits which increase vertical migration of leachate	10	None		Unknown		Present
Unique site features: recharge area, coarse soil, nearby wells, etc		None	9	At least one		More than one
COLUMN TOTALS-TOTAL PTS	20	+	27	+	0	= 47
RANGE OF TOTAL POINTS	49pts or more		41 - 48 pts		40pts or less	
MAXIMUM ALLOWABLE B/T/X/E LEVELS (PPM)	1/50/50/50		.3/.3/1/1		NA\3	
MAXIMUM ALLOWABLE TPH LEVELS (PPM)	GASOLINE	1000		100		10
	DIESEL	10000		1000		100

- \1 If depth is greater than 5 ft. and less than 25 ft., score 0 points.
- If depth is 5 ft. or less, this table should not be used.
- \2 If precipitation is over 40 inches, score 0 points.
- \3 Levels for BTX&E are not applicable at a TPH concentration of 10ppm (gasoline) or 100ppm (diesel)









V: H = 1:1

EXPLANATION

○ 80 gallon diesel tank (base of tank at 2.0 feet)

USCS United Soil Classification System

-  ML-SM: Silt to Silty Sand
-  SM-SP: Silty Sand to Sand
-  SC-SW: Clayey Sand to Sand
-  SP: Sand, poorly graded
-  SW: Sand, well graded
-  CL: Clay

 Water table

TPH Total petroleum hydrocarbons (medium boiling point)

ω Volumetric water content (qualitative measure)

GEOLOGIC CROSS SECTION

EIRRA CONSULTANTS
ENVIRONMENTAL INVESTIGATION, REMEDIATION, AND RISK ASSESSMENT

Pacific Trust Company		
Job Number	Date	Plate
9023	6/91	2