500 12th Street Suite 100 Oakland, CA 94607-4014 (415) 893-3600 April 13, 1990

Woodward-Clyde Consultants

8910116A

Alameda County Department of Environmental Health Toxics Division 80 Swan Way, Room 200 Oakland, California 94621

Attention: Katherine Xchesick

Subject:

Notification of Soil Aeration

Dear Ms. Xchesick:

This letter is to verify our verbal notification to Cynthia Chapman on April 11, 1990 of our intent to aerate soil April 13 through April 17, 1990 at the northeast corner of Park Avenue (Southshore and Shoreline Drive in Alameda, California. The Bay Area Air Quality Managment District (BAAQMD) and the Alameda Fire Department have also been notified by telephone.

The 150 cubic yards of soils currently stockpiled at the above-mentioned location were excavated during the removal of two above-ground dry cleaning solvent storage tanks formerly on site. On March 28, 1990, 12 soil samples were taken and composited into three samples representing 50 cubic yards each. The composited soil samples were tested by EPA Method 8010 for Halogenated Volatile Organic Compounds. The results indicate that the composited soil samples for the three, 50-cubic-yard areas contain 12, 86 and 550 μg/kg, or parts per billion (ppb), tetrachloroethene (PCE)/1,1,2,2-tetrachloroethane (1,1,2,2-PCA). A copy of the laboratory analytical results are attached.

It is our understanding that soils containing less than 50 parts per million organic halocarbons are exempt from Regulation 8, Rule 40 of the BAAQMD, and that a permit is not required in order to aerate these soils. We intend to dispose of this soil at the West Contra Costa County Landfill (WCCCL) in Richmond, California. The acceptance standard for organic halocarbons for the WCCCL is 170 ppb. It is our plan to aerate only

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the 50 cubic yards containing an average concentration of 550 ppb PCE/1,1,2.2-PCA to an acceptibly low concentration prior to disposal.

The following calculation shows that a 50 cubic yard pile of soils with an average density of 125 pounds per cubic foot contains less than one tenth of a pound of PCE/1,1,2,2-PCA. If aerated for 5 days, the contaminant flux would be less than 0.02 pounds per day.

$$\frac{3375 \text{ lbs.}}{\text{yds.}^3}$$
 X 50 yds.³ X $\frac{0.550 \text{ PCE/PCA}}{10^6}$ = 0.0928 lbs. PCE/PCA

If you have any questions regarding the operations at this site, feel free to call the undersigned at (415) 874-1765.

Sincerely,

WOODWARD-CLYDE CONSULTANTS

Lois Gruenberg

Staff Engineer

Albert Ridley, C.E.G. Senior Consultant

SUPERIOR ANALYTICAL LABORATORY, INC.

1555 BURKE, UNIT I · SAN FRANCISCO, CA 94124 · PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 51859-1 CLIENT: Woodward Clyde JOB NO.: 8916116A-8400 DATE SAMPLED: 03/28/90 DATE RECEIVED: 03/29/90 DATE ANALYZED: 04/03/90

EPA SW-846 METHOD 8010 HALOGENATED VOLATILE ORGANICS SAMPLE:H2,FG23,DE2,E4 composite

Compound	MDL (ug/kg)	RESULTS (ug/kg)
Chloromethane	5.0	ND
Bromomethane	5.0	ND
Vinyl chloride	10.0	ND
Dichlorodifluoromethane	5.0	ND
Chloroethane	5.0	ND
Methylene chloride	10.8	ND
Trichlorofluoromethane	5.0	ND
1,1-Dichloroethene	2.0	ND
1,1-Dichloroethane	5.0	ФИ
trans-1,2-Dichloroethene	5.0	ND
Chloroform	5.0	ND
1,2-Dichloroethane	5.0	ND
1,1,1-Trichloroethane	5.0	ND
Carbon tetrachloride	5.0	ND
Bromodichloromethane	5.0	ND
1.2-Dichloropropane	5.0	ND
cis-1,3-Dichloropropene	5,0	ND
Trichloroethylene	5.0	ND
1,1,2~Trichloroethane	5.0	ND
trans-1,3-Dichloropropene	5.0	NĎ
Dibromochloromethane	5.0	ND
2-Chloroethylvinyl ether	10.0	ND
Bromoform	5.0	ND
Tetrachloroethene /		
1,1,2,2-Tetrachloroethane	5.0	86
Chlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,2-Dichlorobenzene	5.0	ΝĐ
1,4-Dichlorobenzene	5.0	ND
1,1,2-Trichlorotrifluorpethan	e 5.0	ND
MDL = Method Detection Limit		
ug/kg = parts per billion (pp	b)	
QA/QC Summary: Daily Standar		
MS/MSD average recovery = 93%		<3%
• •	=	

Richard Srna, Ph. 0.
Laboratory Director

SUPERIOR ANALYTICAL LABORATORY, INC.

1555 Burke, Unit I - San Francisco, Ca 94124 - Phone (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 51859-2 CLIENT: Woodward Clyde JOB NO.: 8916116A-8400 DATE SAMPLED: 03/28/90 DATE RECEIVED: 03/29/90 DATE ANALYZED: 04/03/90

EPA SW-846 METHOD 8010 HALOGENATED VOLATILE ORGANICS SAMPLE: C23, B4, C5, B6 composite

Compound	MDL (ug/kg)	RESULTS	(ug/kg)
Chloromethane	5.0	ND	
Bromomethane	5.0	ND	
Vinyl chloride	10.0	ND	
Dichlorodifluoromethane	5.0	ND	
Chloroethane	5.0	ND	
Methylene chloride	10.0	ND	
Trichlorofluoromethane	5.0	ND	
1,1-Dichloroethene	2.0	ND	
1,1-Dichloroethane	5.0	ND	
trans-1,2-Dichlorsethene	5,0	ND	
Chloroform	5.0	ND	
1.2-Dichloroethane	5.0	ND	
1,1,1-Trichloroethane	5.0	ND	
Carbon tetrachloride	5.0	ND	
Bromodichloromethane	5.0	ND	
1,2-Dichloropropane	5.0	ND	
cis-1,3-Dichloropropene	5.0	ND	
Trichloroethylene	5.0	ND	
	5.0	MD	
trans-1,3-Dichloropropene	5.0	ND	
Dibromochloromethane	5.0	ND	
2-Chloroethylvinyl ether	10.0	ND	
Bromoform	5.0	ДN	
Tetrachloroethene /			
1,1,2,2-Tetrachloroethane	5,0	12	
Chlorobenzene	5.0	ND	
1,3-Dichlorobenzene	5.0	NĎ	
1,2-Dichlorobenzens	5.0	ND	
1,4-Dichlorobenzene	5,0	N.D	
1,1,2-Trichlorotrifluoroethane	5.0	ND	
MDL = Method Detection Limit			
ug/kg = parts per billion (ppb)		
QA/QC Summary: Daily Standard	RPD = <15%		
MS/MSD average recovery = 93%		3%	

Richard Srna Phy.D.
Laborator Director

SUPERIOR ANALYTICAL LABORATORY, INC.

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CERTIFICATE OF ANALYSIS

LABORATORY NO.: 51859-3 CLIENT: Woodward Clyde JOB NO.: 8916116A~8400 DATE SAMPLED: 03/28/90 DATE RECEIVED: 03/29/90 DATE ANALYZED: 04/03/90

EPA SW-846 METHOD 8010 HALOGENATED VOLATILE ORGANICS SAMPLE:CD67,DE78,C78,B78 composite

Compound	MDL (ug/kg)	RESULTS (ug/kg)		
Chloromethane	5.0	ND		
Bromomethane	5.0	ND		
Vinyl chloride	10.0	ND		
Dichlorodifluoromethane	5.0	ND		
Chloroethane	5.0	ND		
Methylene chloride	10.0	ND		
Trichlorofluoromethane	5.0	ND		
1.1-Dichloroethene	2.0	ND		
1,1-Dichloroethane	5.0	ND		
trans-1,2-Dichloroethene	5.0	ND		
Chloroform Chloroform	5.0	ND		
1,2-Dichloroethane	5.0	ND		
1,1,1-Trichloroethane	5.0	ND		
Carbon tetrachloride	5.0	ND		
Bromodichloromethane	5.0	ND		
1,2-Dichloropropane	5.0	ND		
cis-1,3-Dichloropropene	5.0	ND		
Trichloroethylene	5.0	ND		
1,1,2-Trichloroethana	5.0	ND		
trans-1,3-Dichloropropene	5.0	ND		
Dibromochloromethane	5.0	ND		
2-Chloroethylvinyl ether	10.0	ND		
Bromoform	5.0	ND		
Tetrachloroethene /				
1,1,2,2-Tetrachloroethane	5.0	550		
Chlorobenzene	5.0	ND		
1,3-Dichlorobenzena	5.0	ИD		
1,2-Dichlorobenzene	5.0	ND		
1,4-Dichlarobenzene	5.0	ND		
1,1,2-Trichlorotrifluorsethane	5.0	ND		
MDL = Method Detection Limit				
ug/kg = parts per billion (ppb))			
QA/QC Summary: Daily Standard RPD = <15%				
MS/MSD average recovery = 93% - MS/MSD RPD =<3%				

MS/MSD average recovery = 93% : MS/MSD RPD =<3%

Richard Srña, Ph.D.
Laboratory Director