HAGEMAN-AGUIAR, INC.

Underground Contamination Investigations
Groundwater Consultants, Environmental Engineering

3732 Mt. Diablo Blvd. Suite 372
Lafayette, California 94549
(510) 284-1661
FAX (510) 284-1664

FAX
TRANSMISSION COVER SHEET

DATE: SEPT 8, 1992 TIME: 3:30 AM (PM)

ATTN: JENNIFER EBERLE

COMPANY: ALAMEDA ENV. HEALTH DEPT.

FAX #: (510) 569-4757

SENDER: GARY AGUIAR

THIS TRANSMITTAL IS PAGE 1 OF 9

IF YOU DO NOT RECEIVE ALL PAGES, OR RECEIVED IN ERROR

PLEASE CALL HAGEMAN-AGUIAR, INC.

IMMEDIATELY AT (510) 284-1661.

OUR FAX NUMBER IS: (510) 284 - 1664

COMMENTS:

ORIGINAL TO FOLLOW

HAGEMAN-AGUIAR, INC.

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September 8, 1992

Jennifer Eberle
Alameda County Health Agency
Department of Environmental Health
80 Swan Way
Room 200

STID 1211

RE: PACIFIC CRYOGENIC
2311 Magnolia Street, Oakland, CA
94607

Dear Ms. Eberle:

The following is in response to your written comments regarding the two Groundwater Sampling Reports by Hageman-Aguiar, Inc., dated April 13, 1992, and June 23, 1992. The items listed below correspond to those numbered items in your letter to Mr. Guidotti, dated July 22, 1992:

1. **Previous Tank Locations.** The site map for both of the above-referenced reports did not indicate the locations of all three previous underground storage tanks. Please find attached a copy of an updated site map indicating the previous locations of one 1,000-gallon underground diesel storage tank, one 1,000-gallon underground gasoline storage tank and one 500-gallon underground waste oil storage tank.

Magnolia St?

2. **Groundwater Contour Map.** Groundwater elevations in the 6/23/92 report were incorrectly copied onto Figure 3, the contour map. Please find attached an updated shallow groundwater table contour map, based upon shallow water table elevations collected June 16, 1992. ok

3. **Purge Water Sampling.** The results of laboratory analyses performed on purge water samples collected from the two 55-gallon metal storage drums currently present on-site are shown on the attached laboratory report. As shown by this report, no detectable concentrations of either Gasoline, Diesel, Benzene, Toluene, Ethylbenzene or Total Xylenes were found in either of the two water samples. Based upon the fact that 1) the groundwater was found to contain relatively low concentrations of dissolved petroleum constituents, 2) the purge water is aerated during handling and placement inside the storage drums and 3) the purge water has had a significant period of contact with the atmosphere during on-site storage, these results are not surprising.

Shd they h analyzed O+G? no

Based upon the laboratory results, it appears that the purge water can be disposed of as a non-hazardous liquid waste (non-potable water). As a safeguard against any possible environmental problem, it is recommended that the water be disposed of on-site in the sanitary sewer.

do I need to approve this? or get doc.?

get a permit fm EBMUD. ←

4. **Boring Logs.** Research of information regarding the installation of wells MW-2 and MW-3 still in progress by Mr. Aldo Guidotti.

follow-up legible copy of MW-1?

PROJECT NAME SHELL BASS NO. 8910011A/0700

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Well Construction
35	6	pushed	SILTY SAND medium brown, fine to medium grained, moderately dense, saturated	SM	
			(gradational contact)	ML-CL	
			SILT to CLAYEY SILT olive gray to blue gray, low to moderate plasticity, stiff, saturated, becomes clayey below about 38.5'		
40			Bottom of hole = 40.0 feet		
45					
50					
55					
60					
65					
70					
75					
80					

LOG OF MONITORING WELL NO. S-6 SHEET 2 OF 2

5. **Well Boxes.** On August 4, 1992, traffic-rated, water-tight well boxes were installed at wells MW-2 and MW-3 by Hageman-Aguiar, Inc. Each box was cemented in place, including the annular space surrounding the PVC casing down to a depth of approximately 3 feet. The top of the PVC casing in each of the wells is sealed with a locking water-tight expansion cap. doc. is his sign.

6. **Well Redevlopment.** Prior to the next round of quarterly sampling (due September 16, 1992), wells MW-2 and MW-3 will be redeveloped. It is proposed that each well will be developed by removing water with a mechanical air-lift pump until the water is relatively clear, or until the apparent turbidity of the water being removed has stabilized. The development procedure shall include periodic agitation and surging using a mechanical surge block and bailer.

   A minimum of 24 hours shall pass between well development and groundwater sampling. Prior to groundwater sampling, all three on-site monitoring wells will be purged by bailing 4 to 10 casing volumes of water. Field conductivity, temperature, and pH meters will be present on-site during the monitoring well sampling. As the purging process proceeds, these three parameters will be monitored. Purging must continue until readings appear to have reasonably stabilized. After the water level has attained 80% or more of the original static water level in a particular monitoring well, a groundwater sample will be collected using a clean teflon bailer. The water sample will be placed inside appropriate 40 mL VOA vials and 1-liter amber bottles free of any headspace. The sample will immediately be placed on crushed ice, then transported under chain-of-custody to the laboratory at the end of the work day.

Woodward-Clyde Consultants

PROJECT NAME SHELL BASS NO. 8910011A/0700

MONITORING WELL LOCATION	4695 Thornton Ave., Fremont CA, (S-7)			ELEVATION AND DATUM	41.60' TOC/ 41.95' RIM MSL
DRILLING AGENCY	Kvilhaug Well Drilling	DRILLER	Chris Pruner	DATE STARTED / DATE FINISHED	5/15/89
DRILLING EQUIPMENT	Mobile B-61			COMPLETION DEPTH	46.5
DRILLING METHOD	10" Hollow stem auger	DRILL BIT	Mobile Carbide	NO. OF SAMPLES / DIST.	N/A
SIZE AND TYPE OF CASING	4" PVC	FROM 46.5 TO 0.5 FT.		WATER LEVEL / FIRST	31.4
TYPE OF PERFORATION	0.010" Slot	FROM 46.0 TO 26.0 FT.		LOGGED BY:	D. Baden
SIZE AND TYPE OF PACK	2/12 Monterey Sand	FROM 46.5 TO 24.0 FT.		CHECKED BY:	T. Rogers
TYPE OF SEAL NO. 1	Bentonite Pellets	FROM 24.0 TO 23.5 FT.		SAMPLER	2" Modified California
TYPE OF SEAL NO. 2	Neat Cement	FROM 23.5 TO surface FT.		UNDIST. / COMPL. / 24 HRS.	9 / — / —

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION		USCS	Well Construction
			3 1/2" Asphalt Concrete, 6" Aggregate Base Rock	Augered Top 5' by Hand		
			SAND brown, fine grained, some silt		SM	
5	1	3 6 9	SILT dark brown, some clay, moderate plasticity, loose, moist	H Nu = 0 ppm No odor	ML	
10	2	7 7 14	as above, little clay	H Nu = 0 ppm No odor		
15	3	7 10 11	as above	H Nu = 0 ppm No odor		
20	4	6 7 25	SILTY CLAY brown with blue green mottling, moderate plasticity, very stiff, wet	H Nu = 0 ppm No odor	CL	
			SAND brown, little silt, fine to coarse grained, medium dense, moist		SW	
25	5	16 17 18	SAND (as above), little gravel to 1/2", some silt, fine to coarse grained, gravels to 1 1/2" in cuttings	H Nu = 0 ppm No odor		
30	6	25 30 26	SAND and GRAVEL brown, fine to coarse grained sand, fine to medium gravel, trace silt, dense, moist to wet	H Nu = 0 ppm No odor	SW-GW	
35						

At the time each monitoring well is sampled, the following information will be recorded in the field: 1) depth-to-water prior to purging, using an electrical well sounding tape, 2) identification of any floating product, sheen, or odor prior to purging, using a clear teflon bailer, 3) sample pH, 4) sample temperature, and 5) specific conductance of the sample.

7. **Consultant Qualifications.** As noted in written comments.

8. **Piping and Dispenser Pedestal Removal.** Plans for locating existing piping are still underway by Hageman-Aguiar, Inc. It is expected that field activities as they pertain to concrete removal and existing piping location will begin within 14 days from the date of this letter. Prior to commencement of piping removal, notification will be made to Alameda County Department of Environmental Health (Jennifer Eberle), in order that soil sampling activities may be observed.

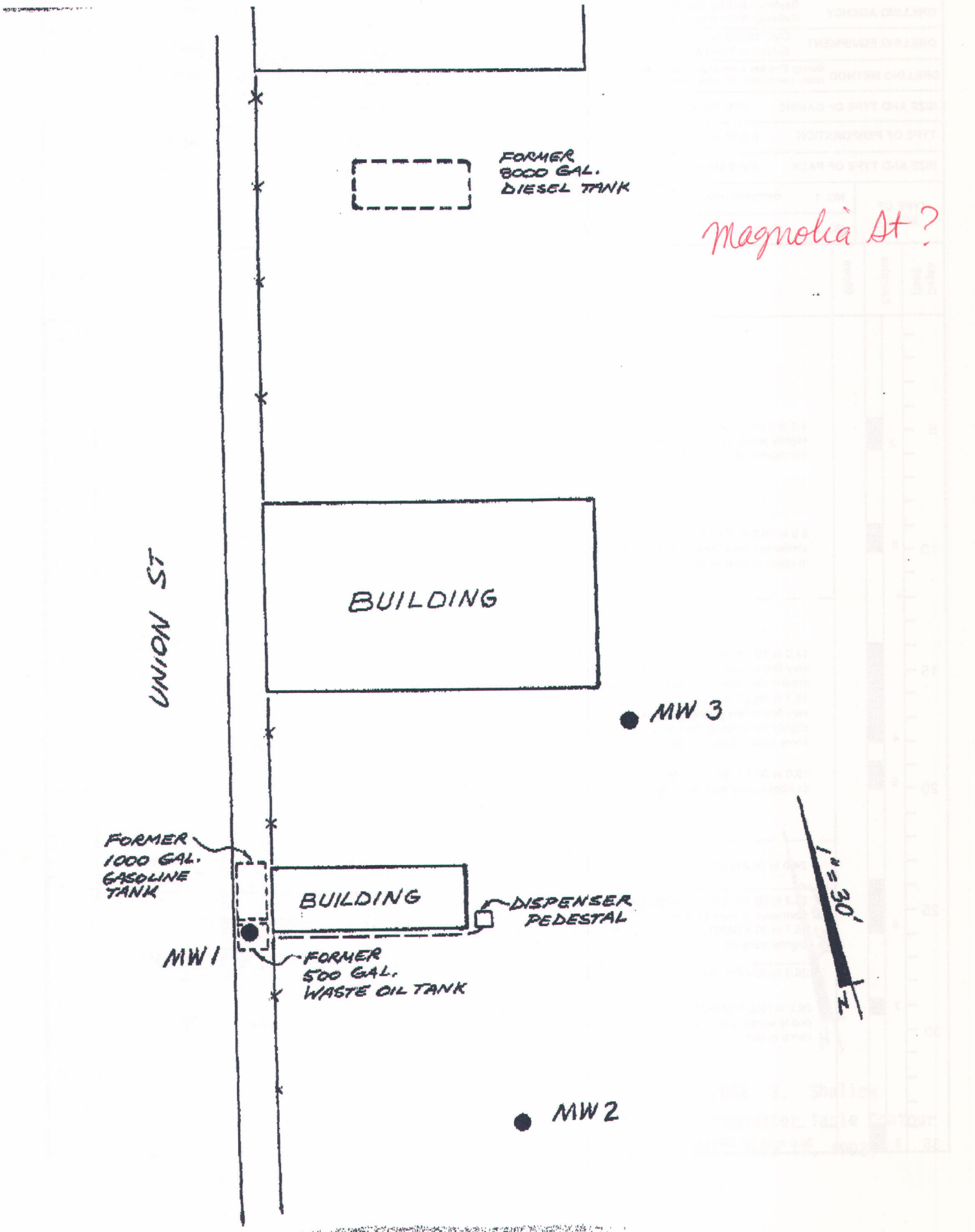
If you have any questions, please contact me at (415)284-1661.

Sincerely,

Gary Aguiar
Principal Engineer

PROJECT NAME SHELL BASS NO. 8910011A/0700

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Well Construction
35	7	8 8 10	SAND brown, little gravel to 1", some silt, fine to coarse grained, medium dense, saturated H Nu = 0 ppm No odor	SW	
			CLAYEY SILT brown with orange brown mottling, low to moderate plasticity, medium dense, wet	ML	
40	8	50 50	SILTY SAND brown, little gravel to 1/2", fine to medium grained, dense, wet H Nu = 0 ppm No odor	SM	
			CLAYEY SILT olive green with orange brown mottling, moderate plasticity, medium dense, wet H Nu = 0 ppm No odor	ML	
45	9	10 15 18			
			Total Depth = 46.5 feet		
50					
55					
60					
65					
70					
75					
80					


FORMER
8000 GAL.
DIESEL TANK
Magnolia St?
UNION ST
BUILDING
MW 3
FORMER
1000 GAL.
GASOLINE
TANK
BUILDING
DISPENSER
PEDESTAL
MW 1
FORMER
500 GAL.
WASTE OIL TANK
1" = 30'
N
MW 2

Woodward-Clyde Consultants

PROJECT NAME SHELL BASS NO. 8910011A/0700

BORING LOCATION	Shell Station, 4695 Thornton Ave., Fremont CA, (S-A)			ELEVATION AND DATUM	41.5' MSL
DRILLING AGENCY	Datum Exploration	DRILLER	J. Condrey	DATE STARTED / DATE FINISHED	1/20/89
DRILLING EQUIPMENT	CME - 75			COMPLETION DEPTH	40'
DRILLING METHOD	8" Hollow stem auger	DRILL BIT	Carbide	NO. OF SAMPLES / DIST.	———
LOGGED BY:	D. Jorgenson			WATER LEVEL / FIRST	33'
CHECKED BY:	M. Bonkowski				

SAMPLER	Modified California
UNDIST.	8
COMPL.	———
24 HRS.	———

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density pcf
			4" Concrete to 1' pea gravel base			
			SAND dark brown, fine to medium grained, very clayey	SC		
5	1	3 2 3	SILTY CLAY dark brown, low plasticity, stiff, moist with rootholes H Nu = 0 ppm No Hydrocarbon odor	CL		
10	2*	2 4 5	H Nu = 0 ppm No Hydrocarbon odor			
			CLAYEY SILT dark brown with gray mottling, low plasticity, stiff, moist with rootholes			
15	3	2 4 6	H Nu = 0 ppm No Hydrocarbon odor	ML		
20	4*	1 3 4	same as above			
			SAND	SP		
25	5*	5 17 18	fine to medium grained, dense gray brown, poorly graded with traces of silt and rounded gravel H Nu = 0 ppm No Hydrocarbon odor			
30	6*	6 8 8	becoming greenish gray, with some gravel, very wet H Nu = 12 ppm Strong Hydrocarbon odor	SW	▼	
			becoming fine grained, very silty, saturated H Nu = 3.8 ppm Very slight Hydrocarbon odor	SM		
35	7*	2 2 4	SILTY CLAY dark gray, low plasticity, stiff to firm, saturated	CL		

PEL # 9208006

INV # 22976

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS:
PACIFIC OXYGEN
2210 UNION ST
OAKLAND, CA

SAMPLER: (Signature) J C Smith

HAGEMAN - AGUIAR, INC.
3732 Mt. Diablo Blvd., Suite 372
Lafayette, CA 94549
(415)284-1661 (415)284-1664 (FAX)

ANALYSIS REQUESTED: TPH Gas; BTXE; TPH Diesel

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION	TPH Gas	BTXE	TPH Diesel	REMARKS
D1	8-4-92	1215		X	55 GAL DRUM # 1	X	X	X	
D2	8-4-92	1230		X	55 GAL DRUM # 2	X	X	X	

RELINQUISHED BY: (Signature) J C Smith	DATE 8-5-92 TIME 0800	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE 08/05/92 TIME 8:50 AM

Woodward-Clyde Consultants

PROJECT NAME SHELL BASS NO. 8910011A/0700

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density pcf
40	8*	2 2 5	(as above) H Nu = 1.0 ppm No Hydrocarbon odor firm			
			Total Depth = 40 feet * = Sample sent to Laboratory			

45 50 55 60 65 70 75 80

LOG OF BORING NO. S-A SHEET 2 OF 2