Weiss Associates *Environmental and Geologic Services*

5500 Shellmound Street, Emeryville, CA 94608-2411 *Fax: 510-547-5043* *Phone:* ***510-450-6000***

November 2, 1995

LOP 3618

Susan Hugo
Alameda County Department of
Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway,
Suite 250
Alameda, CA 94502-6577

Re: **Third Quarter 1995**
Shell Service Station
WIC #204-5510-0303
5755 Broadway
Oakland, California 94606
WA Job #81-0619-205

Dear Ms. Hugo:

This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d

Hydrocarbon and Ground Water Removal Summary		
Fluid	*Removed this Quarter*	*Total Removed*
Separate Phase	0.0 (lbs)	0.55 (lbs)
Ground Water with Dissolved Hydrocarbons	0.0 (gals)	275,238 (gals)

Third Quarter 1995 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected ground water samples from the site wells. BTS' report describing these activities and the analytic report for the ground water samples are included as Attachment A.

- WA calculated ground water elevations, compiled the analytic data (Tables 1 through 3) and prepared a ground water elevation contour and benzene concentrations in ground water map (Figure 2).

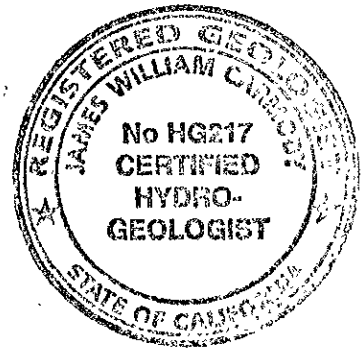
Anticipated Fourth Quarter 1995 Activities:

- WA will remove separate phase hydrocarbons, if detected, and estimate and report its mass. If necessary, ground water will be pumped from the tank pit and its volume reported.

- WA will submit a report presenting the results of the fourth quarter 1995 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results, ground water elevations and a ground water elevation contour map.

Please call Tom Howard at 510-450-6000 if you have any questions.

Sincerely,
Weiss Associates



Grady S. Glasser
Technical Assistant

James W. Carmody, C.H.G.
Senior Project Hydrogeologist

Attachments: A - Blaine Tech's Ground Water Monitoring Report

cc: R. Jeff Granberry, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524

GSG/JWC:all
J:\SHELL\9619\QM\95Q3\95Q3R.DOC

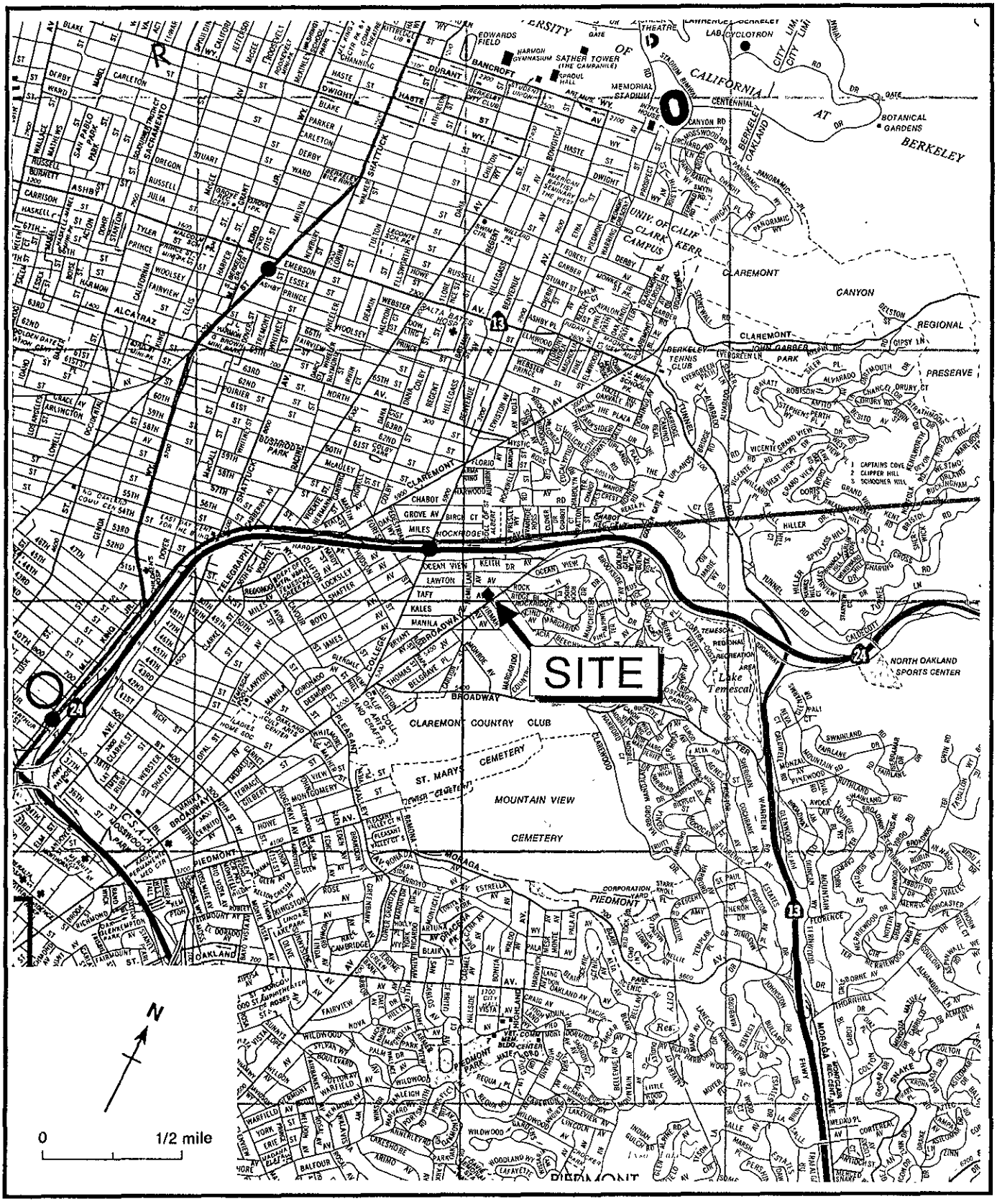


Figure 1. Site Location Map - Shell Service Station WIC #204-5510-0303, 5755 Broadway, Oakland, California

2/28/92

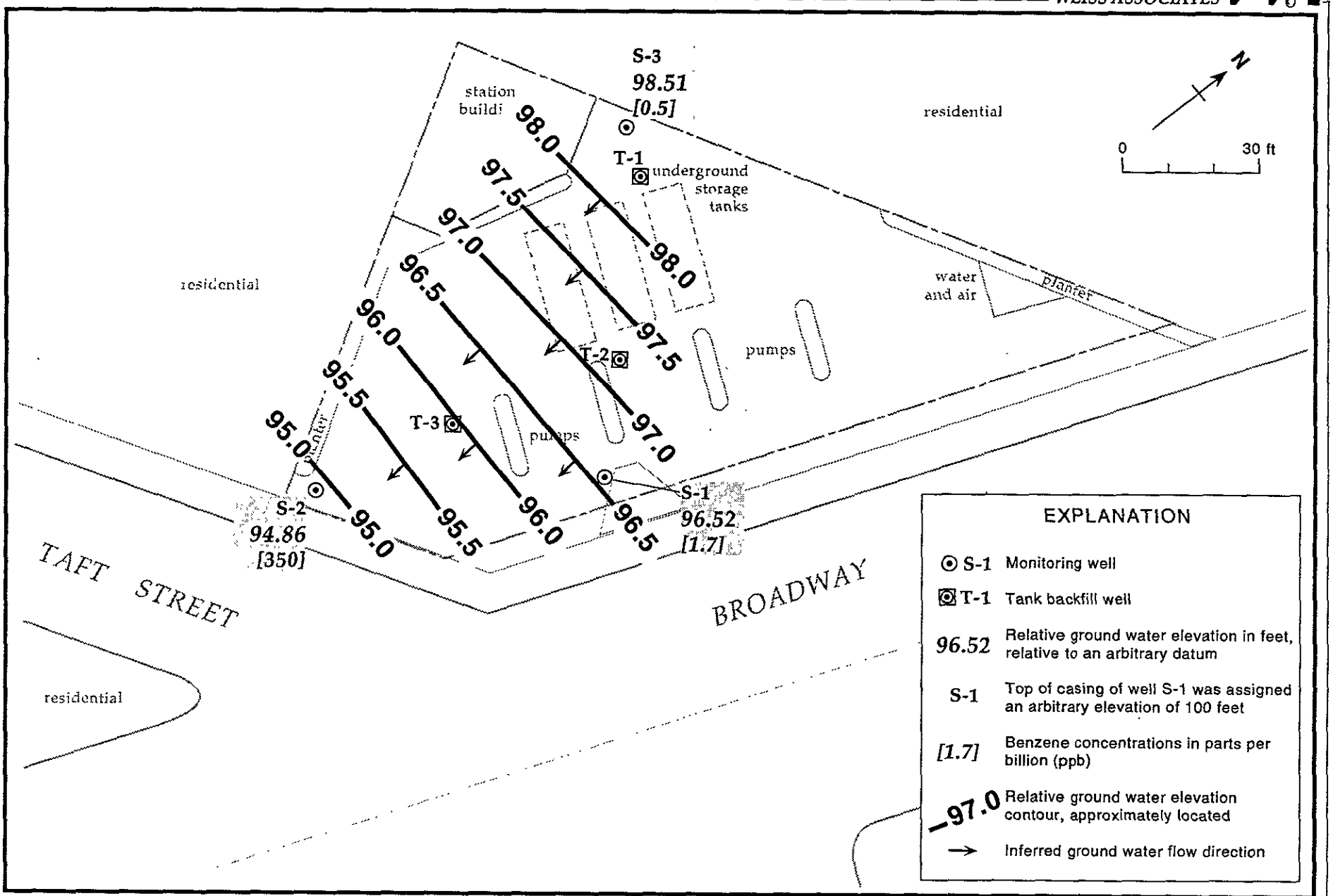


Figure 2. Monitoring Well Locations, Ground Water Elevation Contours, and Benzene Concentrations in Ground Water - August 30, 1995 - Shell Service Station WIC#204-2004-0204, 5755 Broadway, Oakland, California

S619-018.ai

11/07/95

Table 1. Ground Water Elevations - Shell Service Station WIC #504-5510-0303, 5755 Broadway, Oakland, California

Well ID	Date	Top-of-Casing Elevation*	Depth to Water (ft)	Ground Water Elevation (ft)
S-1	01/25/91	100.00	3.88	96.12
	06/03/91		3.51	96.49
	08/30/91		4.24	95.76
	11/22/91		4.29	95.71
	03/13/92		2.87	97.13
	05/28/92		3.79	96.21
	08/19/92		4.43	95.57
	11/18/92		4.34	95.66
	02/10/93		4.20	95.80
	06/11/93		3.39	96.61
	08/03/93		3.69	96.31
	11/02/93		4.26	95.74
	12/16/93		2.73	97.27
	02/01/94		3.38	96.62
	05/04/94		3.00	97.00
	08/18/94		3.70	96.30
	11/09/94		2.52	97.48
	02/22/95		4.08	95.92
	05/02/95		2.58	97.42
	08/30/95		**3.48**	**96.52**
S-2	01/25/91	98.92	4.52	94.40
	06/03/91		4.02	94.90
	08/30/91		4.70	94.22
	11/22/91		4.72	94.20
	03/13/92		3.47	95.45
	05/28/92		4.45	94.45
	08/19/92		4.84	94.08
	11/18/92		4.73	94.19
	02/10/93		4.83	94.09
	06/11/93		3.74	95.18
	08/03/93		4.23	94.69
	11/02/93		4.72	94.20
	12/16/93		3.00	95.92
	02/01/94		3.48	95.44
	05/04/94		3.26	95.66
	08/18/94		3.98	94.94
	11/09/94		3.10	95.82
	02/22/95		4.02	94.90
	05/02/95		2.86	96.06
	08/30/95		**4.06**	**94.86**

Table 1. Ground Water Elevations - Shell Service Station WIC #504-5510-0303, 5755 Broadway, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation*	Depth to Water (ft)	Ground Water Elevation (ft)
S-3	01/25/91	101.67	3.84	97.83
	06/03/91		3.25	98.42
	08/03/91		4.73	96.94
	11/22/91		4.81	96.86
	03/13/92		2.29	99.38
	05/28/92		3.62	98.05
	08/19/92		4.66	97.01
	11/18/92		4.51	97.16
	02/10/93		4.36	97.31
	06/11/93		2.91	98.76
	08/03/93		3.70	97.97
	11/02/93[a]		---	---
	12/16/93		2.12	99.55
	02/01/94		2.90	98.77
	05/04/94		2.54	99.13
	08/18/94		3.51	98.16
	11/09/94		2.44	99.23
	02/22/95		4.12	97.55
	05/02/95		2.83	98.84
	08/30/95		**3.16**	**98.51**

Note:

* = Top of casing elevations referenced to arbitrary elevation of 100 ft
a = Well inaccessible
NA = Not available

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X
			← parts per billion (µg/L) →				
S-1	01/25/91	3.88	<30	<0.3	<0.3	<0.3	<0.3
	06/03/91	3.51	<30	<0.3	<0.3	<0.3	<0.3
	08/30/91	4.24	<30	<0.3	<0.3	<0.3	<0.3
	11/22/91	4.29	<30	2.3	0.3	<0.46	<0.65
	03/13/92	2.87	<30	<0.52	<0.3	<0.3	<0.3
	05/28/92	3.79	<50	<0.5	<0.5	<0.5	<0.5
	08/19/92	4.43	<50	<0.5	<0.5	<0.5	<0.5
	11/18/92	4.34	<50	<0.5	<0.5	<0.5	<0.5
	02/10/93	4.20	51	1.4	<0.5	<0.5	<0.5
	02/10/93[dup]	4.20	<50	1.2	<0.5	<0.5	<0.5
	06/11/93	3.39	<50	<0.5	<0.5	<0.5	<0.5
	08/03/93	3.69	<50	<0.5	<0.5	<0.5	<0.5
	11/02/93	4.26	70[a]	<0.5	<0.5	<0.5	<0.5
	02/01/94	3.38	60[a]	<0.5	<0.5	<0.5	<0.5
	05/04/94	3.00	<50	1.1	<0.5	<0.5	<0.5
	08/18/94	3.70	<50	0.6	<0.5	<0.5	<0.5
	08/18/94[dup]	3.70	60[b]	0.5	<0.5	<0.5	<0.5
	11/09/94	2.52	<50	4.0	<0.5	<0.5	<0.5
	02/22/95	4.08	50	0.8	<0.5	0.7	1.3
	05/02/95	2.58	<50	<0.5	<0.5	<0.5	<0.5
	08/30/95	**3.48**	**<50**	**1.7**	**<0.5**	**<0.5**	**<0.5**
S-2	01/25/91	4.52	450	140	6.2	1.8	15
	06/03/91	4.02	490	150	8.2	2.7	7
	08/30/91	4.70	70	0.37	<0.3	<0.3	<0.3
	11/22/91	4.72	1,600	110	29	9.3	150
	03/13/92	3.47	1,300	210	34	5.7	79
	05/28/92	4.45	100	28	<0.5	<0.5	<0.5
	08/19/92	4.84	470	42	8.3	<0.5	4.0
	11/18/92	4.73	490	43	17	39	29

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X
			← parts per billion (µg/L) →				
	02/10/93	4.83	19,000	710	80	760	370
	06/11/93	3.74	33,000	3,100	370	1,600	1,100
	08/03/93	4.23	18,000	1,400	81	130	130
	08/03/93[dup]	4.23	19,000	1,400	86	140	150
	11/02/93	4.72	12,000[a]	470	31	47	92
	11/02/93[dup]	4.72	13,000[a]	530	35	47	96
	02/01/94	3.48	31,000[a]	430	50	46	130
	02/01/94[dup]	3.48	31,000[a]	300	30	33	100
	05/04/94	3.26	3,900	1,200	53	31	71
	05/04/94[dup]	3.26	4,500	1,200	57	37	110
	08/18/94	3.98	24,000	600	15	8.3	27
	11/09/94	3.10	1,400[a]	240	13	9.3	20
	11/09/94[dup]	3.10	1,800	260	13	8.5	21
	02/22/95	4.02	29,000	550	12	18	63
	02/22/95[dup]	4.02	28,000	530	10	17	60
	05/02/95	2.86	4,400	1,000	38	25	77
	05/02/95[dup]	2.86	4,400	1,000	41	26	83
	08/30/95	**4.06**	**800**	**350**	**6.7**	**20**	**16**
	08/30/95[dup]	**4.06**	**960**	**220**	**12**	**22**	**48**
S-3	01/25/91	NA	<30	<0.3	<0.3	<0.3	<0.3
	06/03/91	3.25	<30	<0.3	0.3	0.3	0.3
	08/30/91	4.73	<30	<0.3	<0.3	<0.3	<0.3
	11/22/91	4.81	<30	<0.3	<0.3	<0.3	<0.3
	03/13/92	2.29	<30	<0.3	0.3	0.3	0.3
	05/28/92	3.62	<50	<0.5	<0.5	<0.5	<0.5
	08/19/92	4.66	<50	<0.5	<0.5	<0.5	0.5
	11/18/92	4.51	<50	<0.5	<0.5	<0.5	<0.5
	02/10/93	4.36	30	1.9	2.4	3.2	5.6
	06/11/93	2.91	<50	<0.5	<0.5	<0.5	<0.5

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X
			← parts per billion (µg/L) →				
	06/11/93[dup]	2.91	<50	<0.5	<0.5	<0.5	<0.5
	08/03/93	3.70	<50	<0.5	<0.5	<0.5	<0.5
	11/02/93[c]	---	---	---	---	---	---
	02/01/94	2.90	<50	<0.5	<0.5	<0.5	<0.5
	05/04/94	2.54	<50	<0.5	<0.5	<0.5	<0.5
	08/18/94	3.51	<50	<0.5	<0.5	<0.5	<0.5
	11/09/94	2.44	<50	<0.5	<0.5	<0.5	<0.5
	02/22/95	4.12	80	<0.5	<0.5	0.5	0.5
	05/02/95	2.83	<50	<0.5	<0.5	<0.5	<0.5
	08/30/95	**3.16**	**<50**	**0.5**	**<0.5**	**<0.5**	**<0.5**
Bailer Blank	08/19/92		<50	<0.5	<0.5	<0.5	<0.5
	11/22/91		<50	<0.5	<0.5	<0.5	<0.5
	02/22/95		<50	<0.5	<0.5	<0.5	<0.5
Trip Blank	03/13/92		<50	<0.3	<0.3	<0.3	<0.3
	05/28/92		<50	<0.5	<0.5	<0.5	<0.5
	08/19/92		<50	<0.5	<0.5	<0.5	<0.5
	11/18/92		<50	<0.5	<0.5	<0.5	<0.5
	02/10/93		<50	<0.5	<0.5	<0.5	<0.5
	08/03/93		<50	<0.5	<0.5	<0.5	<0.5
	11/02/93		<50	<0.5	<0.5	<0.5	<0.5
	02/01/94		<50	<0.5	<0.5	<0.5	<0.5
	05/04/94		<50	<0.5	<0.5	<0.5	<0.5
	11/09/94		<50	<0.5	<0.5	<0.5	<0.5
	02/22/95		<50	<0.5	1.0[e]	<0.5	<0.5
	05/02/95		<50	<0.5	<0.5	<0.5	<0.5
	08/30/95		**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
DTSC MCLs			NE	1	680	100[d]	1,750

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California (continued)

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 602 or 8020
--- = Not analyzed
DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
NA = Not available
NE = Not established
<n = Not detected at detection limits of n ppb
dup = Duplicate sample

Notes:

a = Concentrations reported as gasoline are primarily due to presence of a discrete peak not indicative of gasoline.
b = This positive result has an atypical pattern for gasoline
c = Well inaccessible.
d = DTSC recommended action level for drinking water; MCL not established
e = Positive result confirmed by secondary column or GC/MS analysis.

Table 3. Separate Phase Hydrocarbon Removal - Shell Service Station WIC #204-5510-0303, 5755 Broadway, Oakland, California

Well ID	Date	Separate Phase Hydrocarbon Thickness (ft)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)
T-1	02/10/93	<0.01	0.01	0.01
	06/11/93	<0.01	0.01	0.02
	08/03/93	0.01	0.01	0.03
	11/02/93	0.02	0.03	0.06
	02/01/94	0.00	0.01	0.07
	05/04/94	0.00	0.00	0.07
	08/18/94	0.00	0.00	0.07
	02/22/95	0.00	0.00	0.07
	05/02/95	0.00	0.00	0.07
	08/30/95	**0.00**	**0.00**	**0.07**
T-2	02/10/93	0.43	0.40	0.40
	06/11/93	<0.01	0.01	0.41
	08/03/93	0.01	0.01	0.41
	11/02/93	0.02	0.02	0.43
	02/01/94	0.00	0.01	0.44
	05/04/94	0.00	0.00	0.44
	08/18/94	0.00	0.00	0.44
	02/22/95	0.00	0.00	0.44
	05/02/95	0.00	0.00	0.44
	08/30/95	**0.00**	**0.00**	**0.44**
T-3	08/03/93	0.03	0.02	0.02
	11/02/93	0.02	0.01	0.03
	02/01/94	0.03	0.01	0.04
	05/04/94	0.00	0.00	0.04
	08/18/94	0.00	0.00	0.04
	02/22/95	0.00	0.00	0.04
	05/02/95	0.00	0.00	0.04
	08/30/95	**0.00**	**0.00**	**0.04**
			Total Mass of Hydrocarbons Removed:	**0.55**

ATTACHMENT A

GROUND WATER MONITORING REPORT AND ANALYTIC REPORT

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

September 29, 1995

Shell Oil Company
P.O. Box 4023
Concord, CA 94524

Attn: R. Jeff Granberry

Shell WIC #204-5510-0303
5755 Broadway
Oakland, California

3rd Quarter 1995

Quarterly Groundwater Monitoring Report 950830-D-3

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. Copies of our Sampling Report along with the laboratory's Certified Analytical Report are forwarded to the consultant overseeing work at this site. Submission of the assembled documents to interested regulatory agencies will be made by the designated consultant.

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 995-5535 ext. 201.

Yours truly,

Francis Thie

attachments: Table of Well Gauging Data
Chain of Custody
Field Data Sheets
Certified Analytical Report

cc: Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608-2411
Attn: Grady Glasser

(Any professional evaluations or recommendations will be made by the consultant under separate cover.)

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
S-1	8/30/95	TOC	--	NONE	--	--	3.48	11.48
S-2 *	8/30/95	TOC	ODOR	NONE	--	--	4.06	9.42
S-3	8/30/95	TOC	--	NONE	--	--	3.16	9.50
T-1	8/30/95	TOC	ODOR/SHEEN	--	--	--	2.82	13.25
T-2	8/30/95	TOC	ODOR/SHEEN	--	--	--	1.98	12.97
T-3	8/30/95	TOC	ODOR	NONE	--	--	3.14	9.36

* Sample DUP was a duplicate sample taken from well S-2.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 950830-D3

Date: 8-30-95
Page 1 of 1

Site Address: 5755 Broadway, Oakland

WIC#: 204-5510-0303

Shell Engineer: Dan Kirk
Phone No.: (510) 675-6168
Fax #: 675-6160

Consultant Name & Address: Blaine Tech Services, Inc.
985 Timothy Drive San Jose, CA 95133

Consultant Contact: Jim Keller
Phone No.: (408) 995-5535
Fax #: 293-8773

Comments:

Sampled by: MIKE D.

Printed Name: MIKE DILLOUGHERY

Analysis Required

CUSTODY SEALED
Date 8-31-95 Time 1146 Initials P.S.
SEAL INTACT?
Yes ✓ No ___ Initials [illegible]

LAB: ~~Anametrix~~ NET

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
Quarterly Monitoring [X]	5461	24 hours [ ]
Site Investigation [ ]	5441	48 hours [ ]
Soil Classify/Disposal [ ]	5442	16 days [X] (Normal)
Water Classify/Disposal [ ]	5443	Other [ ]
Soil/Air Rem. or Sys. O & M [ ]	5452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M [ ]	5453	
Other [ ]		

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
S-1	8/30			W		3						X								
S-2	8/30			↓		3						X								
S-3	8/30			↓		3						X								
EB	8/30			↓		3						X								
DUP	8/30			↓		3						X								
TB	8/30			↓		2						X								

Relinquished By (signature)	Printed Name	Date/Time	Received (signature)	Printed Name	Date/Time
[signature]	MIKE DILLOUGHERY	Date: 8-31-95 Time: 10:56	Paul Seghetti	PAUL SEGHETTI	Date: 8-31-95 Time:
Paul Seghetti	PAUL SEGHETTI	Date: 8-31-95 Time: 1147	Received (signature):	Printed Name:	Date: Time:
Relinquished By (signature):	Printed Name:	Date: Time:	Phil Prosser	PHIL PROSSER	Date: 9/1/95 Time: 0800

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
3636 North Laughlin Road
Suite 110
Santa Rosa, CA 95403-8226
Tel: (707) 526-7200
Fax: (707) 541-2333

Jim Keller
Blaine Tech Services
985 Timothy Dr.
San Jose, CA 95133

Date: 10/03/1995
NET Client Acct. No: 1821
NET Job No: 95.03488
Received: 09/01/1995

Client Reference Information

Shell 5755 Broadway, Oakland, CA./950830-D3

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:

Jennifer L. Roseberry
Project Manager

Enclosure(s)

Ref: Shell 5755 Broadway, Oakland, CA./950830-D3

SAMPLE DESCRIPTION: S-1
Date Taken: 08/30/1995
Time Taken:
NET Sample No: 250171

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						09/13/1995	3173
Purgeable TPH	ND		50	ug/L	5030/M8015		09/13/1995	3173
Carbon Range: C6 to C12	--						09/13/1995	3173
METHOD 8020 (GC, Liquid)	--						09/13/1995	3173
Benzene	1.7	C	0.5	ug/L	8020		09/13/1995	3173
Toluene	ND		0.5	ug/L	8020		09/13/1995	3173
Ethylbenzene	ND		0.5	ug/L	8020		09/13/1995	3173
Xylenes (Total)	ND		0.5	ug/L	8020		09/13/1995	3173
SURROGATE RESULTS	--						09/13/1995	3173
Bromofluorobenzene (SURR)	92			% Rec.	8020		09/13/1995	3173

C : Positive result confirmed by secondary column or GC/MS analysis.

Ref: Shell 5755 Broadway, Oakland, CA./950830-D3

SAMPLE DESCRIPTION: S-2
Date Taken: 08/30/1995
Time Taken:
NET Sample No: 250172

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						09/13/1995	3173
Purgeable TPH	800		50	ug/L	5030/M8015		09/13/1995	3173
Carbon Range: C6 to C12	--						09/13/1995	3173
METHOD 8020 (GC, Liquid)	--						09/13/1995	3173
Benzene	350	FC	5.0	ug/L	8020		09/30/1995	3216
Toluene	20		0.5	ug/L	8020		09/13/1995	3173
Ethylbenzene	6.7		0.5	ug/L	8020		09/13/1995	3173
Xylenes (Total)	16		0.5	ug/L	8020		09/13/1995	3173
SURROGATE RESULTS	--						09/13/1995	3173
Bromofluorobenzene (SURR)	121	MI		% Rec.	8020		09/13/1995	3173

FC : Compound quantitated at a 10X dilution factor. This final dilution was analyzed outside of the method specified holding time. Result should be considered as a minimum value.
MI : Matrix Interference Suspected.

NET®

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 95.03488

Date: 10/03/1995
ELAP Cert: 1386
Page: 4

Ref: Shell 5755 Broadway, Oakland, CA./950830-D3

SAMPLE DESCRIPTION: S-3
Date Taken: 08/30/1995
Time Taken:
NET Sample No: 250173

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						09/13/1995	3173
Purgeable TPH	ND		50	ug/L	5030/M8015		09/13/1995	3173
Carbon Range: C6 to C12	--						09/13/1995	3173
METHOD 8020 (GC, Liquid)	--						09/13/1995	3173
Benzene	0.5	C	0.5	ug/L	8020		09/13/1995	3173
Toluene	ND		0.5	ug/L	8020		09/13/1995	3173
Ethylbenzene	ND		0.5	ug/L	8020		09/13/1995	3173
Xylenes (Total)	ND		0.5	ug/L	8020		09/13/1995	3173
SURROGATE RESULTS	--						09/13/1995	3173
Bromofluorobenzene (SURR)	92			% Rec.	8020		09/13/1995	3173

C : Positive result confirmed by secondary column or GC/MS analysis.

Ref: Shell 5755 Broadway, Oakland, CA./950830-D3

SAMPLE DESCRIPTION: EB
Date Taken: 08/30/1995
Time Taken:
NET Sample No: 250174 *

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						09/30/1995	3216
Purgeable TPH	ND		50	ug/L	5030/M8015		09/30/1995	3216
Carbon Range: C6 to C12	--						09/30/1995	3216
METHOD 8020 (GC, Liquid)	--						09/30/1995	3216
Benzene	ND		0.5	ug/L	8020		09/30/1995	3216
Toluene	ND		0.5	ug/L	8020		09/30/1995	3216
Ethylbenzene	ND		0.5	ug/L	8020		09/30/1995	3216
Xylenes (Total)	ND		0.5	ug/L	8020		09/30/1995	3216
SURROGATE RESULTS	--						09/30/1995	3216
Bromofluorobenzene (SURR)	91			% Rec.	8020		09/30/1995	3216

* : Analysis occurred outside the method specified holding time. Result should be considered a minimum value.

Ref: Shell 5755 Broadway, Oakland, CA./950830-D3

SAMPLE DESCRIPTION: DUP
Date Taken: 08/30/1995
Time Taken:
NET Sample No: 250175

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	10						09/13/1995	3173
Purgeable TPH	960		500	ug/L	5030/M8015		09/13/1995	3173
Carbon Range: C6 to C12	--						09/13/1995	3173
METHOD 8020 (GC, Liquid)	--						09/13/1995	3173
Benzene	220		5	ug/L	8020		09/13/1995	3173
Toluene	22		5	ug/L	8020		09/13/1995	3173
Ethylbenzene	12		5	ug/L	8020		09/13/1995	3173
Xylenes (Total)	48		5	ug/L	8020		09/13/1995	3173
SURROGATE RESULTS	--						09/13/1995	3173
Bromofluorobenzene (SURR)	90			% Rec.	8020		09/13/1995	3173

Ref: Shell 5755 Broadway, Oakland, CA./950830-D3

SAMPLE DESCRIPTION: TB
Date Taken: 08/30/1995
Time Taken:
NET Sample No: 250176

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						09/13/1995	3173
Purgeable TPH	ND		50	ug/L	5030/M8015		09/13/1995	3173
Carbon Range: C6 to C12	--						09/13/1995	3173
METHOD 8020 (GC, Liquid)	--						09/13/1995	3173
Benzene	ND		0.5	ug/L	8020		09/13/1995	3173
Toluene	ND		0.5	ug/L	8020		09/13/1995	3173
Ethylbenzene	ND		0.5	ug/L	8020		09/13/1995	3173
Xylenes (Total)	ND		0.5	ug/L	8020		09/13/1995	3173
SURROGATE RESULTS	--						09/13/1995	3173
Bromofluorobenzene (SURR)	90			% Rec.	8020		09/13/1995	3173

Ref: Shell 5755 Broadway, Oakland, CA./950830-D3

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch Number
METHOD 5030/8015-M (Shell)							
Purgeable TPH	94.0	0.47	0.50	mg/L	09/13/1995	lss	3173
Benzene	88.0	4.40	5.00	ug/L	09/13/1995	lss	3173
Toluene	86.8	4.34	5.00	ug/L	09/13/1995	lss	3173
Ethylbenzene	90.0	4.50	5.00	ug/L	09/13/1995	lss	3173
Xylenes (Total)	90.8	13.62	15.0	ug/L	09/13/1995	lss	3173
Bromofluorobenzene (SURR)	90.0	90	100	% Rec.	09/13/1995	lss	3173
METHOD 5030/8015-M (Shell)							
Purgeable TPH	94.0	0.47	0.50	mg/L	09/29/1995	jlr	3216
Benzene	96.6	4.83	5.00	ug/L	09/29/1995	jlr	3216
Toluene	98.2	4.91	5.00	ug/L	09/29/1995	jlr	3216
Ethylbenzene	101.8	5.09	5.00	ug/L	09/29/1995	jlr	3216
Xylenes (Total)	103.3	15.5	15.0	ug/L	09/29/1995	jlr	3216
Bromofluorobenzene (SURR)	102.0	102	100	% Rec.	09/29/1995	jlr	3216

Ref: Shell 5755 Broadway, Oakland, CA./950830-D3

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	0.05	mg/L	09/13/1995	lss	3173
Benzene	ND	0.5	ug/L	09/13/1995	lss	3173
Toluene	ND	0.5	ug/L	09/13/1995	lss	3173
Ethylbenzene	ND	0.5	ug/L	09/13/1995	lss	3173
Xylenes (Total)	ND	0.5	ug/L	09/13/1995	lss	3173
Bromofluorobenzene (SURR)	90		% Rec.	09/13/1995	lss	3173
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	0.05	mg/L	09/29/1995	jlr	3216
Benzene	ND	0.5	ug/L	09/29/1995	jlr	3216
Toluene	ND	0.5	ug/L	09/29/1995	jlr	3216
Ethylbenzene	ND	0.5	ug/L	09/29/1995	jlr	3216
Xylenes (Total)	ND	0.5	ug/L	09/29/1995	jlr	3216
Bromofluorobenzene (SURR)	101		% Rec.	09/29/1995	jlr	3216

Ref: Shell 5755 Broadway, Oakland, CA./950830-D3

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Run Batch	Sample Spiked
METHOD 5030/8015-M (Shell)											251341
Purgeable TPH	92.0	92.0	0.0	0.50	ND	0.46	0.46	mg/L	09/29/1995	3216	251341
Benzene	92.3	92.3	0.0	5.2	ND	4.8	4.8	ug/L	09/29/1995	3216	251341
Toluene	92.7	102.3	9.7	25.9	ND	24.0	26.5	ug/L	09/29/1995	3216	251341

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

COOLER RECEIPT FORM

Project: 950830-D3 Log No: 8326
Cooler received on: 9/1/95 and checked on 9/1/95 by
(signature)

Were custody papers present?.....~~YES~~ NO

Were custody papers properly filled out?.....~~YES~~ NO

Were the custody papers signed?.....~~YES~~ NO

Was sufficient ice used?.....~~YES~~ NO TEMP.: 0°C

Did all bottles arrive in good condition (unbroken)?.....~~YES~~ NO

Did bottle labels match COC?.....~~YES~~ NO

Were proper bottles used for analysis indicated?.....YES NO

Correct preservatives used?.....~~YES~~ NO

VOA vials checked for headspace bubbles?.....~~YES~~ NO
Note which voas (if any) had bubbles:*

Sample descriptor:	Number of vials:

*All VOAs with headspace bubbles have been set aside so they will not be used for analysis.....YES NO

List here all other jobs received in the same cooler:

Client Job #	NET log #

(coolerrec)