

## Chevron U.S.A. Inc.

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500 Mail Address: RO. Box 5004, San Ramon, CA 94583-0804

91 1:01 10 701:5:30

Marketing Department

November 14,1991

Mr. Scott Seery Alameda County Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Re: Former Chevron Service Station #9-2960

2416 Grove Way, Castro Valley, CA 94546

Mr. Seery:

Enclosed is the quarterly groundwater monitoring and sampling report dated November 8, 1991. Briefly, groundwater samples from monitoring wells, C-5, C-6, and C-7, had nondetectable levels of hydrocarbon constituents. A sample from well, C-4, has for the first time 87 parts per billion (ppb) of total petroleum hydrocarbon as gasoline (TPH-G) that does not match the standard gasoline pattern. Sample from well, C-3, had a decline in TPH-G, benzene, toluene, ethylbenzene, and xylene (BTEX) while a sample from well, C-2, had an increase in these same constituents. Free product was present in well, C-4 which 2 gallons were removed at the same time the wells were being sampled, and another gallon was removed in October. Both the rinsate and travel blank were nondetect for all hydrocarbon constituents. During this sampling period depth to groundwater ranged from 16.66 feet to 20.91 feet.

Chevron will continue to monitor these wells and will continue to bail any free product on a monthly basis.

If you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Kenneth Kan Engineer

LKAN/MacFile 9-2960R1

Enclosure

cc: Mr. Rich Hiett, RWQCB-S.F.Bay Region 1111 Jackson Street, Room 6040, Oakland, CA 94607

Ms. Bette Owen, Chevron U.S.A., Inc.



a TIM

November 8, 1991

Mr. Kenneth Kan Chevron U.S.A., Inc. Post Office Box 5004 San Ramon, California 94583-0804

310-563

Subject: Quarterly Ground Water Monitoring Report

Former Chevron Station No. 9-2960

2416 Grove Way

Castro Valley, California

Dear Mr. Kan:

In accordance with our agreement, Alton Geoscience transmits this Quarterly Ground Water Monitoring and Sampling Report for former Chevron Station No. 9-2960, 2416 Grove Way, Castro Valley, California. Figure 1 shows the site location.

Monitoring and sampling of the ground water monitoring wells was performed on September 24, 1991, in accordance with the requirements and procedures of the California Regional Water Quality Control Board (RWQCB) and local regulatory agencies.

## FIELD PROCEDURES

Prior to purging and sampling the wells, each well was checked for liquid-phase hydrocarbons or sheen. The depth to ground water and, if present, free product thickness was measured in each well from the top of casing using an electronic interface probe with 0.01 foot tolerance.

Ground water samples were collected after more than 3 casing volumes of ground water was purged from each well. Each sample was collected using a clean bailer. Ground water samples were then decanted into the appropriate clean sample containers for delivery to a California-certified laboratory following proper preservation and chain of custody procedures. Purged ground water was stored onsite in DOT-approved, 55-gallon drums pending removal by Erickson Inc., a licensed hauler. The purged ground water was transported as non-hazardous to Gibson Oil/ Pilot Petroleum of Redwood City, California for recycling.

Mr. Kenneth Kan November 8, 1991 Page 2

## SAMPLING AND ANALYTICAL RESULTS

The results of the monitoring and laboratory analyses of ground water samples for this quarter, as well as the results of previous monitoring and sampling events, are summarized in Table 1. Based on the previous wellhead elevation survey data and depth to water measurements collected during this monitoring event, ground water elevations and the general ground water gradient direction at this site are presented in Figure 2.

Free product was noted in monitoring well C-1 and was subsequently removed by use of a bailer or skimmer. Approximately 2 gallons of free product was removed from C-1 on September 24, 1991, and approximately 1 gallon of free product was removed from C-1 on October 23, 1991. The official laboratory reports and chain of custody records are included in Appendix A.

Please call John De George at (510) 682-1582 if you have any questions concerning this report.

Sincerely,

ALTON GEOSCIENCE,

John De George Staff Geologist

Robert E. Logan R. G. 5088 Manager, Concord Operations

wp92960jd





FIGURE 1: SITE VICINITY MAP

FORMER CHEVRON SERVICE STATION NO. 9-2960 2416 GROVE WAY CASTRO VALLEY, CALIFORNIA

SOURCE: THE THOMAS GUIDE
ALAMEDA COUNTY STREET
GUIDE & DIRECTORY



ALTON GEOSCIENCE 1000 Burnett Ave. Ste. 140 Concord, California

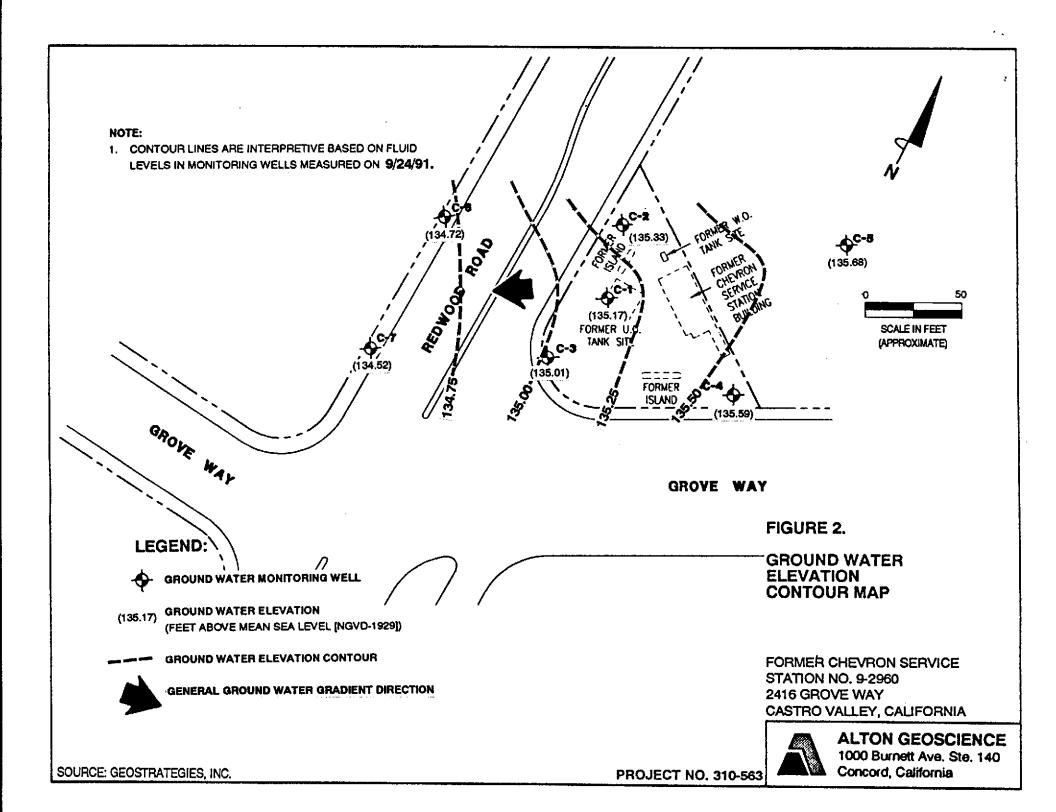


Table 1
Summary of Results of Ground Water Sampling
Former Chevron Service Station # 9-2960
2416 Grove Way/Redwood Road, Castro Valley, California

## Concentrations in warts per billion (ppb)

<b>====</b> =										<b>======</b> ==============================	
WELL	DATE OF	TOP OF	DEPTH	FREE	GROUND	TPH-G	В	T	E	X	LAB
ID	SAMPLING/	MELL BOX	TQ	PRODUCT	WATER						
	MONITORING	ELEVATION	WATER	THICKNESS	ELEVATION						
=====				=========	======================================	*========					
C-1	10/23/86	many brok store				37000	6400	3700		4300	TMA
C-1	09/10/87	-man dark differ		we w		120000	25000	60000	13000	56000 *	ENS
c-1	10/03/90	153.36	18.67		134.69					-	NA
C = 1	10/25/90	153.36	18.71	0.71	135.22						NA
C-1	01/22/91	153.36	18.70	0.70	135.22	*** *** ***			-		NA
C-1	02/21/91	153.36	18.62	0.88	135.44				***	w	NA
C-1	04/01/91	153.36	16.91	0.03	136.47		***				NA
C-1	04/11/91	153.36	16.90	0.04	136.49					<del></del>	NA
C-1	07/01/91	153.36	17.61	0.00	135.75		<b></b>				NA
C-1	09/24/91	153.36	18.98	0.99	135.17						NA
C-1	10/23/91	153.36	19.32	1.24	135.03				THE WAS SER.		NA
				1							
C-2	10/23/86			w-		30000	2700	1900		1500	TMA
C-2	09/10/87		HAVE SEED WAS			14000	2600	2900	500	1200 *	ENS
C-2	10/16/89	<del></del>		~~~		600	260	34	1.7	41	NA
C-2	01/04/90			other dark Adm		2600	470	150	23	130	NA
C~2	04/05/90			<del></del>		500	280	29	6.3	19	NA
C-2	07/02/90					2400	<del>6</del> 70	110	17	76	NA
C-2	10/03/90		The train was	*** *** ***					***		NA
C-2	10/25/90	151.84	16.60	<del></del>	135.24	1300	390	47	9	58	SAL
C-2	01/22/91	151.84	16.69		135.15	2600	680	88	29	130	SAL
C-2	02/21/91	151.84	16.31		135.53					PR 44-44-	NA 🥆
C-2	04/01/91	151.84	15.08		136.76						NA )~
C-2	04/11/91	151.84	15.23		136.61		THE YES THE				NA &
C-2	07/01/91	151.84	15.96		135.88						NA )
C-2	09/24/91	151.84	16.51		135.33	3600	1400	63	6.9	63	SAL
C-2	10/23/91	151.84	16.66		135.18						NA

Table 1
Summary of Results of Ground Water Sampling
Former Chevron Service Station # 9-2960
2416 Grove Way/Redwood Road, Castro Valley, California

Concentrations in parts per billion (ppb)

WELL	DATE OF	TOP OF	DEPTH	FREE	GROUND	TPH~G	8	T	E	×	LAB
ID	SAMPLING/	MELL BOX	TO	PRODUCT	WATER						
	MONITORING	ELEVATION	WATER	THICKNESS	ELEVATION						
===== C-3	10/23/86	=========				3300	49	======================================	========	20	
C-3	09/10/87	distribute soon		W 100 W		200	110		ND(0.0		TMA
C-3	10/16/89		arms with malf		****	200 900	640	2.6 4.2	ND(2.0	ND(2.0	ENS
C-3	01/04/90					920	430	4.2	1.6	16	NA
,-3 2-3	01/04/90	100 Marie 1000						2 4	. 6	7	NA
J-3 3-3				and board shade		930	690	3.4	5.1	4.8	NA
	07/02/90					1700	590	11	4.8	9.4	NA
2-3	10/03/90	154.13	19.16		134.97				-		NA
C-3	10/25/90	154.13	19.28		134.85	750	510	2	6	5	SAL
C-3	01/22/91	154.13	19.18		134.95	430	260	2	2	5	SAL
C-3D	01/22/91	154.13	19.18		134.95	400	250	2	2	5	SAL
2-3	02/21/91	154.13	18.88		135.25				*** ***		NA 🔪
:-3	04/01/91	154.13	17.59	'	136.54	turn riser min					NA ( >
-3	04/11/91	154.13	17.81		136.32		~~~~				NA (*
7-3	07/01/91	154.13	18.56		135.57						NA 🔎
2~3	09/24/91	154.13	19.12		135.01	260	52	0.7	0.8	2.2	SAL
3-3	10/23/91	154.13	19.24	- ·	134.89						NA
0-4	10/23/86	Some sour war	w w			570	3	4	WF W#	5	TMA
2-4	09/10/87		~ - <del>~</del>			500	3.0	ND(0.5	ND(0.5	ND(0.5	ENS
-4	10/16/89				bor me va-	ND (500	12	1.0	ND(0.5	0.8	NA
-4	01/04/90					ND (500	5	ND(0.5	ND(0.5	0.9	NA
4	04/05/90					ND (50	6.6	ND(0.5	ND(0.5	0.7	NA NA
-4	07/02/90					71	4.1	ND(0.5	ND(0.5	ND(0.5	NA NA
C~4	10/03/90		·	<del></del>		' -					NA NA
0-4	10/25/90	156.00	20.43		135.57	ND < 50	2	ND(0.5	ND(0.5	ND(O.5	SAL
0-4	01/22/91	156.00	20.50		135.50	ND (50	3	ND(0.5	ND(0.5	ND(0.5	SAL
-4	02/21/91	156.00	20.23		135.77				1101010	ND10.5	NA NA
-4	04/01/91	156.00	19.03		136.97	*** SW SW					NA NA
-4	04/11/91	156.00	19.05		136.95						NA A
C-4	07/01/91	156.00	19.90		136.10					~~~	NA NA
C-4	09/24/91	156.00	20.41		135.59	.87 **:	1.6	ND(0.5	ND(0.5	ND(0.5	
C-4	10/23/91	156.00	20.53		135.47		A . O	ND(0.5	NU(U.5	ND(O.5	SAL NA

Table 1
Summary of Results of Ground Water Sampling
Former Chevron Service Station # 9-2960
2416 Grove Way/Redwood Road, Castro Valley, California

Concentrations in parts per billion (ppb)

ID	DATE OF SAMPLING/ MONITORING	TOP OF WELL BOX ELEVATION	DEPTH TO WATER	FREE PRODUCT THICKNESS	GROUND WATER ELEVATION	TPH-G	В	T	E	X	LAB	
	MONITORING				=========					=======================================		
C~5	10/03/90	153.38	17.78		135.60	ND (50	ND(0.5	ND(0.5	ND(O.5	ND(0.5	SAL	
C-5	10/25/90	153.38	17.92		135.46	ND < 50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL	
C-5	11/09/90	153.38	17.92		135.46	ND (50	ND(O.5	ND(Q.5	ND(0.5	ND(0.5	SAL	
Č-5	01/22/91	153.38	17.80		135.58	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL	
Č-5	02/21/91	153.38	17.51		135.87						NA 🔪	
C-5	04/01/91	153,38	16.31	***	137.07			*** *** ***			NA 🕻 `	>
C-5	04/11/91	153.38	16.36		137.02				****		NA 🕻	,
C-5	07/01/91	153.38	17.12		136.26					-	NA J	
C-5	09/24/91	153.38	17.70		135.68	ND < 50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL	
C-5D	09/24/91	153.38	17.70		135.68	ND < 50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL	
C-5	10/23/91	153.38	17.82	,	135.56			near other with	*******		NA	
				Ų.								
C-6	10/03/90	152.84	18.14		134.70	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL	
C-6	10/25/90	152.84	18.29	***	134.55	ND < 50	ND(0.5	1	ND(0.5	ND(0.5	SAL	
C-6	11/09/90	152.84	18.26		134.58	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL	
C-6	01/22/91	152.84	18.15		134.69	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL	
C-6	02/21/91	152.84	17.92		134.92	war netr new					NA 🥆	
C-6	04/01/91	152.84	17.11		135.73						NA }	3 3
C+6	04/11/91	152.84	17.01	_ ~	135.83	1840 MIN 1860					NA À	
C-6	07/01/91	152.84	17.72	~~ <del>~</del>	135.12						NA 🕽	•
Č-6	09/24/91	152.84	18.12		134.72	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL	
C-6	10/23/91	152.84	18.25		134.59						NA	
C-7	10/03/90	155.34	20.82		134.52	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL	
C-7	10/05/90	155.34	20.91		134.43	ND (50	ND (0.5	1	ND(0.5	ND (0.5	SAL	
ピープ	11/09/90	155.34	20.94		134.40	ND (50	ND(0.5	ND(0.5	ND(0.5	ND (0.5	SAL	
C-7	01/22/91	155.34	21.50		133.84	ND (50	10 CO 10	ND(0.5	ND(0.5	ND(0.5	SAL	
C-7	02/21/91	155.34	20.71		134.63						NA \	
	04/01/91	155.34	20.00		135.34	<b>*</b> -	***				NA	
C-7 C-7	04/01/91	155.34	20.05		135.29	<del></del>					NA >	~
	07/01/91	155.34	20.05		134.82						NA S	•
Ç−7 C−7	07/01/91	155.34	20.82		134.52	ND (50	ND(0.5	ND(O.5	ND(0.5	ND(0.5	SAL	
		155.34	20.82	<del></del>	134.43	ND 130	ND(0.5	MD10.5	ND(0.5	NDTO.5	NA NA	
C-フ	10/23/91	100.04	20.71	<del></del>	134,43				*	*	1464	

8 mos gap m data!

Table 1 Summary of Results of Ground Water Sampling Former Chevron Service Station # 9-2960 2416 Grove Way/Redwood Road, Castro Valley, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	TOP OF WELL BOX ELEVATION	DEPTH TO WATER	FREE PRODUCT THICKNESS	GROUND WATER ELEVATION	TPH-G	В	т	ε	X	LAB
TB	10/03/90	NA	NA	NA	NA NA	ND < 50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
TB	10/25/90	NA	NA	NA	NA	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
TB	11/09/90	NA	NA	NA	NA	ND (50	ND(O.5	ND(0.5	ND(O.5	ND(0.5	SAL
TB	01/22/91	NA	NA	NA	NA	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
TB	09/24/91	NA	NA	NA	NA	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
RINSATE	09/10/87	NA	NA	NA	NA	ND(100	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ENS
RINSATE	10/25/90	NA	NA	NA	NA	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
RINSATE	09/24/90	NA	NA	NA	NA	ND (50	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
EXPLANA		VIATIONS:	rhone se G	ecolina	و زمت ککی حب اللہ اللہ اللہ اللہ اللہ اللہ اللہ الل		Not analyze	od/Not meas	ured		

TPH-G	:Total Petroleum Hydrocarbons as Gasoline		:Not analyzed/Not measured
	(EPA method 8015 modified)	NA	:Not applicable/Not available
В	:Benzene (EPA method 8020 or 8240)	TMA	:Thermo Analytical Inc.
Т	:Toluene (EPA method 8020 or 8240)	ENS	:Enseco
E	:Ethylbenzene (EPA method 8020 or 8240)	SAL	:Superior Analytical Laboratory
X	:Xylenes (EPA method 8020 or 8240)	*	:Concentration for m-Xylene only.
TB	:Trip Blank	**	:Non-standard gasoline pattern observed
D	:Duplicate		in chromatogram.

Note: Top of casing and Ground Water Elevations are expressed at feet above mean sea level (NGVD - 1929)

# APPENDIX A OFFICIAL LABORATORY RESULTS AND CHAIN OF CUSTODY FORMS



825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

CERTIFICATE OF ANALYSIS 1991

LABORATORY NO.: 83976 CLIENT: Alton Geoscience CLIENT JOB NO.: 310-563

DATE RECEIVED: 09/24/91 DATE REPORTED: 10/01/91

Page	1	οf	2
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83976- 1 83976- 2 83976- 3 83976- 4 83976- 5 83976- 6 83976- 7 83976- 8 83976- 9	Customer  TB RIN C-5 C-5D C-6 C-7 C-4 C-3 C-2		age 1 of	z n	Date Sample 09/24/ 09/24/ 09/24/ 09/24/ 09/24/ 09/24/ 09/24/	91 /91 /91 /91 /91 /91 /91 /91	Date Analyzed 09/26/91 09/26/91 09/26/91 09/26/91 09/27/91 09/27/91 09/27/91
Laboratory 1	Number:	83976	83976 2	83976 3	83976 4		976 5
ANALYTE LIS	<u> </u>	Amounts/6	Quantitatio	n Limits	(ug/L)		<del></del>
OIL AND GRE. TPH/GASOLIN TPH/DIESEL BENZENE: TOLUENE: ETHYL BENZE XYLENES:	ASE: E RANGE: RANGE:	NA ND <50 NA ND <0.5 ND <0.5 ND <0.5 ND <0.5	NA ND ND ND	<50 <0.5 <0.5 <0.5 <0.5			
Laboratory	Number:	83976 6	83976 7	83976 8	83976 9		
ANALYTE LIS	T	Amounts/	Quantitati	on Limits	(ug/L)		
OIL AND GRE TPH/GASOLIN TPH/DIESEL BENZENE: TOLUENE: ETHYL BENZE XYLENES:	E RANGE: RANGE:	NA ND <50 NA ND <0.5 ND <0.5 ND <0.5 ND <0.5	NA *87 NA 1.6 ND <0.5 ND <0.5 ND <0.5	NA 260 NA 52 0.7 0.8 2.2	NA 3600 NA 1400 63 6.9 63		

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

# CERTIFICATE OF ANALYSIS

# ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2 QA/QC INFORMATION SET: 83976

NA = ANALYSIS NOT REQUESTED

ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

ug/L = part per billion (ppb)

\* - Gasoline range concentration reported. A non-standard gasoline pattern was observed in the chromatogram.

OIL AND GREASE ANALYSIS By Standard Methods Method 503E: Minimum Detection Limit in Water: 5000ug/L

Modified EPA-SW846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L
Standard Reference: NA

EPA-SW846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons: Minimum Quantitation Limit for Gasoline in Water: 50ug/L Standard Reference: 06/26/91

SW-846 Method 8020/BTXE

Minimum Quantitation Limit in Water: 0.5ug/L

Standard Reference: 07/08/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease Diesel Gasoline Benzene Toluene Ethyl Benzene		NA NA 200 ng 200 ng 200 ng 200 ng	NA NA 110/118 93/88 97/95 102/99	NA NA 7 5 2	NA NA 70-130 70-130 70-130 70-130
Total Xylenes	s 07/08/91	200 ng	99/95	3	70-130

Richard Srna, Ph.D.

Laboratory Director

Fax copy of Lab Report and COC to Chevron Contact: A No ☐ Yes Chain-of-Custody-Record Nancy Vukilich (415) 842-958) 9-2960 Chevron Contact (Name) . Chevron Facility Number 2416 Grane Way, Castro Valley 310-563 Chevron U.S.A. Inc. Consultant Project Number..... Laboratory Name \_ 2512110 P.O. BOX 5004 Alton Geoscience Laboratory Release Number ..... Consultant Name \_\_ Address 1000 Burnett Ave., Concord San Ramon, CA 94583 Samples Collected by (Name)..... FAX (415)842-9591 9124191 John De George Collection Date\_ 510 Phone) (082-1582 (Fax Number) 682-8921 Signature. Analyses To Be Performed Air Charcoal Purgeable Aramatka (8020) 'urgeable Halocarbor (8010) Jurgeoble Organics (8240) (8015) (9015) Oil and Grease (5520) 111 ဖပ္မ 1213 6 yes laaa **1224** 1224 1236 1244 309 334 <del>Sambles Sibred in ice.</del>L Appropriate containers Samples preserved VOA's without headspace Comments: Organization Date/Time Turn Around Time (Circle Choice) Received By (Signature) Organization Date/Time Relinquished By (Signature) 9/24/91/1557 Alton 24 Hrs. Received By (Signature) Organization Date/Time Organization Relinculated By (Signature) 10 Dave Recieved For Laboratory By (Signature) Date/Time Relinquished By (Signature) Organization As Contracted