May 6, 1996

Messrs. Aaron and Stanley Wong 2200 E. 12th Street Oakland, CA 94606

Re: First Quarter Report, 1996, Credit World Auto Sales, 2345 E. 14th Street, Oakland, CA 94601

Dear Messrs. Wong:

Tank Protect Engineering of Northern California, Inc. (TPE) is pleased to submit this quarterly letter report of environmental services conducted at the subject site. Previous work conducted at the site is summarized in TPE's Fourth Ouarter Report, 1995. Credit World Auto Sales, 2345 E. 14th Street, Oakland, CA 94601 and work conducted during the subject quarter is presented in detail.

WORK PERFORMED BY TPE DURING FIRST QUARTER, 1996:

- World Auto Sales, 2345 E. 14th Street, Oakland, CA 94601 to Messrs. Wong for their approval and delivery to the ACHCSA.
- . March 20, 1996 Loosened well caps on all wells to allow depth-to groundwater to stabilize to atmospheric pressure for groundwater gradient determination.
- March 22, 1996 Measured depth-to-groundwater and free product thickness in wells MW-1 through TMW-5 for evaluation of groundwater flow direction and gradient and collected 5 groundwater samples for analysis for total petroleum hydrocarbons as gasoline (TPHG), and methyl t-butyl ether, benzene, toluene, ethylbenzene, and xylenes (MBTEX). Additionally, a trip blank was analyzed for TPHG and MBTEX.

Details of work conducted during the fourth quarter are presented below.

Groundwater Gradient

On March 20, 1996 TPE personnel loosened all well caps to allow groundwater levels to stabilize to atmospheric pressure within the wells prior to making depth-to-groundwater measurements for evaluation of groundwater flow direction and gradient.

On March 22, 1996 depth-to-groundwater was measured from the top of casing (TOC) in wells MW-1 through TMW-5 to the nearest 0.01 foot using an electronic Keck Instrument, Inc., KIR-89 interface probe. A minimum of 3 repetitive measurements were made for each level determination to ensure accuracy. Depth-to-groundwater was subtracted from the TOC elevation, measured relative to mean sea level, to calculate the elevation of the groundwater level in each well (see attached Table 1). When floating product was present, the groundwater elevation was corrected by multiplying the floating product thickness by a density of .75 and adding the resultant value to the groundwater elevation.

On March 22, 1996 average groundwater elevation, as measured in the 5 monitoring wells, had increased 1.14 feet relative to the last sampling event of December 26, 1995 (see attached Table 2).

Attached Figure 1 is a groundwater gradient map constructed from the data collected on March 22, 1996. Groundwater flow direction appears to be radially outward from the location of the onsite excavation pit. Radial groundwater gradient ranges from about .07 to the southwest to .11 feet per foot to the northwest. Average groundwater elevations, changes in average groundwater elevations, groundwater gradients, and groundwater flow directions are tabulated in attached Table 2.

Groundwater Sampling and Analytical Results

On March 22, 1996 groundwater samples were collected from each of the 5 groundwater monitoring wells. Before sampling, the wells were purged of about 29 to 44 liters of water with dedicated polyethylene bailers and until the temperature, conductivity, and pH of the water in the wells had stabilized (see attached Records of Water Sampling). Since dedicated bailers were used for each well sampled, no

decontamination was necessary between sampling events. The water samples were collected in laboratory provided, sterilized, 40-milliliter glass vials having Teflon-lined screw caps; and labeled with project name, date, time collected, sample number, and sampler name. The samples were immediately stored in an iced-cooler for transport to California State Department of Health Services (DHS) certified Trace Analysis Laboratory, Inc. (TAL), located in Hayward, California accompanied by chain-of-custody documentation. All groundwater samples and a trip blank sample, MW-6, were analyzed for TPHG by the DHS Method and for MBTEX by the Modified EPA Method 8020.

Floating product was observed in wells MW-1, MW-2, MW-3, and TMW-5; having a thickness of .08 feet, .15 feet, .04 feet and .05 feet respectively. Attached Table 3 summarizes the thickness of floating product measured in each well. The floating product was easily removed by purging at the time of sampling. Hydrocarbon odor and sheen was observed in all wells except TMW-4.

Purge water is stored on site in 55-gallon drums labeled to show material stored, known or suspected chemical contaminant, date filled, expected removal date, company name, contact person, and telephone number.

See attached protocols for TPE's sample handling, groundwater monitoring well sampling, and quality assurance and quality control procedures.

Chemical analyses detected TPHG and BTEX chemicals in all wells except well TMW-4. TPHG was detected in wells MW-1, MW-2, MW-3, and TMW-5 at concentrations of 19,000 parts per billion (ppb), 9,800 ppb, 16,000 ppb and 56,000 ppb, respectively. Methyl t-butyl ether was nondetectable in all wells. The reader is referred to attached Table 4 for a summary of BTEX concentrations detected in these wells.

Well TMW-4 and the trip blank sample (MW-6) were nondetectable for TPHG and MBTEX. High reporting limits for MBTEX are based on dilution parameters set by the laboratory for benzene.

Analytical results are summarized in attached Table 4 and documented in an attached certified analytical report and a chain-of-custody.

RECOMMENDATIONS

Chemical analysis detected TPHG and some or all MBTEX chemicals in monitoring wells MW-1, MW-2, MW-3, and TMW-5. TPHG and MBTEX chemical concentrations decreased in the monitoring wells during the subject quarter.

TPE recommends that quarterly groundwater sampling of all 5 groundwater monitoring wells be continued to evaluate gradient and monitor contaminant concentrations.

The next sampling event for wells MW-1 through TMW-5 is proposed to take place on about June 20, 1996. All wells are proposed to be analyzed for TPHG and MBTEX.

An additional copy of this report has been included for your delivery to:

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

TPE recommends that this quarterly report be submitted with a signed cover letter from Messrs. Aaron and Stanley Wong.

If you have any questions, please call TPE at (510) 429-8088.

ED GEO

LEE N. HUCKINS No. 6286

Sincerely,

Lee Huckins

Registered Geolog

Expiration Date 5/31/97

Jeff Farhoomand, M.S.

Principal Engineer

TABLE 1
GROUNDWATER ELEVATION

Well Name	Date	TOC ¹ Elevation (Feet MSL ⁴)	Depth-to-Water From TOC (Feet)	Depth to Product From TOC (Feet)	Corrected ³ Groundwater Elevation (Feet MSL)
MW-1	08/23/91 ⁵	100.00 ²	15.42	NA ⁹	84.58
	04/16/92 ⁶	27.33 ⁷	16.66	11.54	14.51 ⁸
	06/11/93		12.61	12.60	14.73
	08/17/93		14.40	13.63	13.50 ⁷
	03/31/94		12.64	ND	14.69
· · · · · · · · · · · · · · · · · · ·	06/27/94		14.32	13.16	13.88
	09/16/94		15.86	13.64	13.14
	03/31/95		11.82	9.48	17.27
<u> </u>	06/28/95		13.50	12.60	14.51
	09/28/95		14.27	13.96	13.29
	12/26/95		11.77	11.62	15.67
	03/22/96		10.52	10.44	16.87
MW-2	08/23/91 ⁵	98.585 ²	13.77	NA	84.815
	04/16/92 ⁶	25.927	15.38	12.57	12.65 ⁸
	06/11/93		13.185	ND ¹⁰	12.74
	08/17/93		14.04	14.03	11.89
	03/31/94		13.61	13.07	12.72 ⁸
	06/27/94		14.24	13.44	12.28
	09/16/94		17.82	13.36	11.45
	03/31/95		16.72	9.28	14.78
	06/28/95	,	13.50	12.77	12.97
	09/28/95		14.63	14.09	11.70
	12/26/95		12.58	11.68	14.01
	03/22/96		11.46	11.31	14.57
MW-3	08/23/915	99.25 ²	15.07	NA	84.18
	04/16/926	27.57 ⁷	14.14	13.98	13.55 ⁸
	06/11/93		14.275	ND	13.30
	08/17/93		15.77	ND	11.80

- 1 TOP-OF-CASING.
- ² RELATIVE TO SITE DATUM ESTABLISHED BY ESE.
- ³ ELEVATION CORRECTED FOR FLOATING PRODUCT USING 0.75 DENSITY FOR GASOLINE.
- ⁴ MEAN SEA LEVEL.
- 5 WATER LEVEL MEASUREMENTS BY ESE.
- ⁶ WATER LEVEL MEASUREMENTS BY NKJ.
- 7 TOC SURVEYED 8/10/93 BY PROFESSIONAL ENGINEER.
- ⁸ CORRECTED GROUNDWATER ELEVATION BY TANK PROTECT ENGINEERING.
- 9 NOT AVAILABLE.
- 10 NOT DETECTED.

TABLE 2
GROUNDWATER GRADIENTS, FLOW DIRECTIONS,
AND ELEVATION DATA

Date	Average Groundwater Elevation (Feet-MSL ¹)	Change in Average Groundwater Elevation (Feet)	Groundwater Gradient	Groundwater Flow Direction
04/16/92	13.57		.021	NW
06/11/93	13.59	0.02	.026	NW
08/17/93	12.80	-0.79	.029	RADIAL
03/31/94	13.97	1.17	.050	RADIAL
06/27/94	13.38	-0.59	.020	RADIAL
09/16/94	12.65	-0.73	.01790411	RADIAL
03/31/95	16.48	+3.83	.075	RADIAL
06/28/95	14.09	-2.39	.025053	RADIAL
09/28/95	12.52	-1.57	.025	NW
12/26/95	15.09	+2.57	.048	RADIAL
03/22/96	16.23	+1.14	.07111	RADIAL

¹ MEAN SEA LEVEL.

TABLE 3
SUMMARY OF FLOATING PRODUCT THICKNESS

Well Name	Date	Depth-to-Water From TOC ¹ (Feet)	Depth-to-Product From TOC (Feet)	Product Thickness (Feet)	
MW-1	04/16/92 ²	16.66	11.54	5.12	
	06/11/93	12.61	12.60	0.01	
	08/17/93	14.40	13.63	0.77	
	03/31/94	12.64	ND		
	06/27/94	14.32	13.16	1.16	
	09/16/94	15.86	13.64	2.22	
	03/31/95	11.82	9.48	2.34	
	06/28/95	13.50	12.60	0.90	
	09/28/95	14.27	13.96	0.31	
	12/26/95	11.77	11.62	0.15	
	03/22/96	10.52	10.44	0.08	
MW-2	04/16/92 ²	15.38	12.57	2.81	
	06/11/93	13.185	ND ³		
	08/17/93	14.04	14.03	0.01	
	03/31/94	13.61	13.07	0.54	
	06/27/94	14.24	13.44	0.80	
	09/16/94	17.82	13.36	4.46	
	03/31/95	16.72	9.28	7.44	
	06/28/95	13.50	12.77	0.73	
	09/28/95	14.63	14.09	0.54	
	12/26/95	12.58	11.68	0.90	
	03/22/96	11.46	11.31	0.15	
MW-3	04/16/92 ²	14.14	13.98	0.16	
	06/11/93	14.275	ND		
	08/17/93	15.77	ND		
	03/31/94	14.35	ND		
	06/27/94	14.77	ND		
	09/16/94	15.42	15.37	0.05	

TABLE 3 SUMMARY OF FLOATING PRODUCT THICKNESS

Well Name	Date	Depth-to-Water From TOC ¹ (Feet)	Depth-to-Product From TOC (Feet)	Product Thickness (Feet)
MW-3	03/31/95	12.98	12.52	0.46
	06/28/95	14.20	14.15	0.05
	09/28/95	15.7	ND	
	12/26/95	13.33	13.27	0.06
	03/22/96	12.81	12.77	0.04
TMW-4	08/17/93	13.26	ND	
	03/31/94	12.40	ND	
	06/27/94	12.84	ND	
	09/16/94	13.58	ND	
	03/31/95	10.23	ND	
	06/28/95	12.21	ND	
	09/28/95	13.38	ND	
	12/26/95	11.32	ND	
	03/22/96	10.54	ND	
TMW-5	08/17/93	12.98	12.95	0.03
	03/31/94	11.39	ND	
	06/27/94	12.24	ND	
	09/16/94	13.02	12.97	0.05
	03/31/95	7.38	ND	
	06/28/95	11.31	11.25	0.06
	09/28/95	14.42	ND	
	12/26/95	10.16	10.11	0.05
	03/22/96	7.59	7.54	0.05

¹ TOP-OF-CASING.

WATER AND PRODUCT LEVELS MEASURED BY NKJ.
 NOT DETECTED.

TABLE 4
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ppb¹)

Sample ID Name	Date	TPHG	Methyl t- Butyl Ether	Benzene	Toluene	Ethyl- benzene	Xylenes
MW-1	08/17/93	110,000	NA ²	270	690	730	3,100
-	03/28/94	34,000	NA	4,900	1,800	1,200	4,000
	06/27/94	21,000	NA	12,000	810	760	2,500
	09/16/94	37,000	NA	7,900	2,400	1,300	3,300
	03/31/95	43,000	NA	8,100	1,900	1,000	4,200
-	06/28/95	80,000	NA	7,900	3,200	1,800	7,300
	09/28/95	24,000	<1,200	4,900	470	470	1,700
	12/26/95	61,000	<1,200	12,000	4,200	1,500	5,500
	03/22/96	19,000	<2,500	6,000	470	260	<750
MW-2	08/17/93	49,000	NA	94	240	250	980
	03/28/94	14,000	NA	4,200	<250	910	1,400
	06/27/94	24,000	NA	4,400	72	1,100	1,700
	09/16/94	40,000	NA	2,300	250	2,000	4,100
	03/31/95	28,000	NA	4,000	<120	1,100	1,400
	06/28/95	40,000	NA	2,700	130	1,700	2,900
	09/28/95	7,500	< 62	420	14	250	190
	12/26/95	22,000	<250	1,300	88	950	1,800
	03/22/96	9,800	<1,200	2,200	< 120	400	<380
MW-3	08/17/93	9,600	NA	4.1	17	28	54
	03/28/94	8,400	NA	2,400	56	67	200
	06/27/94	9,900	NA	3,300	<22	<25	73
	09/16/94	16,000	NA	2,300	80	620	240
	03/31/95	16,000	NA	2,800	70	<25	920
	06/28/95	11,000	NA	2,300	32	81	240
	09/28/95	6,300	<420	1,900	< 42	200	< 120
	12/26/95	25,000	<250	3,800	97	94	1,600
	03/22/96	16,000	<250	3,100	75	69	350

TABLE 4 SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS (ppb^1)

Sample ID Name	Date	TPHG	Methyl t- butyl ether	Benzene	Toluene	Ethyl- benzene	Xylenes
TMW-4	08/17/93	150	NA	< 0.50	0.8	1.4	3.7
	03/28/94	< 50	NA	< 0.50	< 0.50	< 0.50	<1.5
	06/27/94	<50	NA	< 0.50	< 0.50	< 0.50	<1.5
	09/16/94	< 50	NA	< 0.50	< 0.50	< 0.50	<1.5
	03/31/95	<50	NA	< 0.50	< 0.50	< 0.50	<1.5
	06/28/95	<50	NA	< 0.50	< 0.50	< 0.50	<1.5
	09/28/95	<50	< 5.0	< 0.50	< 0.50	< 0.50	<1.5
	12/26/95	< 50	< 5.0	< 0.50	< 0.50	< 0.50	<1.5
	03/22/96	< 50	< 5.0	< 0.50	< 0.50	< 0.50	<1.5
TMW-5	08/17/93	120,000	NA	340	730	790	3,600
	03/28/94	70,000	NA	23,000	1,500	4,100	15,000
	06/28/94	56,000	NA	26,000	940	5,500	26,000
<u> </u>	09/16/94	96,000	NA	17,000	720	3,500	12,000
	03/31/95	64,000	NA	13,000	470	2,800	6,100
	06/28/95	65,000	NA	9,000	240	2,600	5,300
	09/28/95	79,000	<1,200	17,000	1,800	2,700	7,000
	12/26/95	110,000	<1,200	24,000	2,300	4,100	10,000
	03/22/96	56,000	<2,500	11,000	800	2,300	4,500
TMW-6 ³	08/17/93	< 50	NA	< 0.5	<0.5	< 0.5	< 0.5
	03/28/94	<50	NA	< 0.5	<0.5	< 0.5	<1.5
	06/27/94	< 50	NA	< 0.5	< 0.5	< 0.5	<1.5
	09/16/94	< 50	NA	< 0.50	< 0.50	< 0.50	<1.5
	03/31/95	<50	NA	< 0.50	< 0.50	< 0.50	<1.5
	06/28/95	<50	<5.0	< 0.50	< 0.50	< 0.50	<1.5
	09/28/95	<50	NA	< 0.50	< 0.50	< 0.50	<1.5
	12/26/95	<50	<5.0	< 0.50	< 0.50	< 0.50	<1.5
MW-6 ⁴	03/22/96	< 50	<5.0	< 0.50	< 0.50	< 0.50	<1.5

¹ PARTS PER BILLION.

NOT ANALYZED.
 TRIP BLANK.

⁴ SAME AS TMW-6 (TRIP BLANK).

TABLE 4
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS (ppb¹)

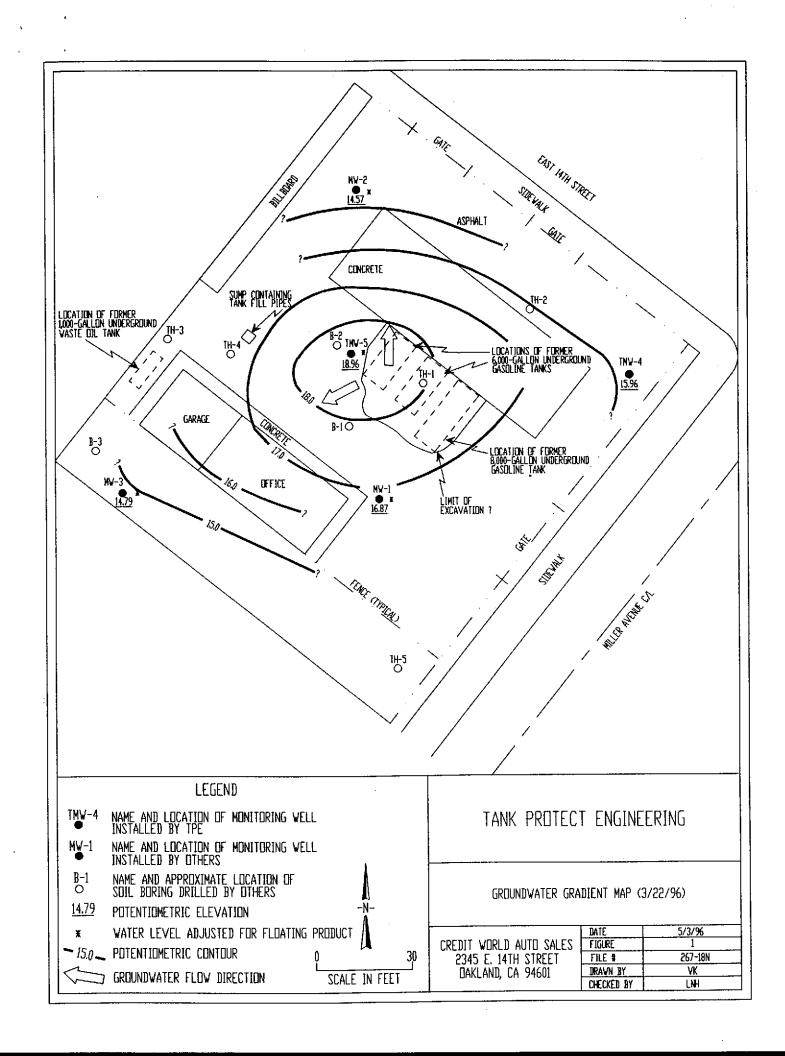
Sample ID Name	Date	ТРНС	Methyl t- butyl ether	Benzene	Toluene	Ethyl- benzene	Xylenes
TMW-4	08/17/93	150	NA	< 0.50	0.8	1.4	3.7
	03/28/94	< 50	NA	< 0.50	< 0.50	< 0.50	<1.5
	06/27/94	<50	NA	< 0.50	< 0.50	< 0.50	<1.5
	09/16/94	< 50	NA	< 0.50	< 0.50	< 0.50	<1.5
	03/31/95	<50	NA	< 0.50	< 0.50	< 0.50	<1.5
	06/28/95	< 50	NA	< 0.50	< 0.50	< 0.50	<1.5
	09/28/95	<50	<5.0	< 0.50	< 0.50	< 0.50	<1.5
	12/26/95	< 50	<5.0	< 0.50	< 0.50	< 0.50	<1.5
	03/22/96	<50	< 5.0	< 0.50	< 0.50	< 0.50	<1.5
TMW-5	08/17/93	120,000	NA	340	730	790	3,600
	03/28/94	70,000	NA	23,000	1,500	4,100	15,000
	06/28/94	56,000	NA	26,000	940	5,500	26,000
	09/16/94	96,000	NA	17,000	720	3,500	12,000
	03/31/95	64,000	NA	13,000	470	2,800	6,100
	06/28/95	65,000	NA	9,000	240	2,600	5,300
	09/28/95	79,000	<1,200	17,000	1,800	2,700	7,000
	12/26/95	110,000	<1,200	24,000	2,300	4,100	10,000
	03/22/96	56,000	<2,500	11,000	800	2,300	4,500
TMW-6 ³	08/17/93	<50	NA	< 0.5	< 0.5	< 0.5	< 0.5
	03/28/94	<50	NA	< 0.5	< 0.5	< 0.5	<1.5
	06/27/94	<50	NA	< 0.5	< 0.5	< 0.5	<1.5
	09/16/94	<50	NA	< 0.50	< 0.50	< 0.50	<1.5
	03/31/95	<50	NA	< 0.50	< 0.50	< 0.50	<1.5
	06/28/95	<50	<5.0	< 0.50	< 0.50	< 0.50	<1.5
	09/28/95	< 50	NA	< 0.50	< 0.50	< 0.50	<1.5
	12/26/95	< 50	<5.0	< 0.50	< 0.50	< 0.50	<1.5
MW-6 ⁴	03/22/96	<50	< 5.0	< 0.50	< 0.50	< 0.50	<1.5

PARTS PER BILLION.

² NOT ANALYZED.

³ TRIP BLANK.

⁴ SAME AS TMW-6 (TRIP BLANK).



PROJECT NO.: 267 DATE: 3/22/96	WELL NO.: LUW-1
PROJECT NAME: CREDIT WORLD	WELL DIAMETER: 2"
PROJECT LOCATION: 2345 E 14th ST OAKLAND	TOC ELEV:
SAMPLER: MAY	LOCK NO.:
ANALYSES: TPHG BTEX	
WELL DEPTH (from construction detail):	
WELL DEPTH (measured): 34.34 SOFT BOTTOM?: NO DEPTH TO WATER: 10.52 TIME: 14:07	
PRESSURE (circle one)?: YES OR NO	
IF YES, WAS PRESSURE (circle one): POSITIVE OR NEGATIVE?	
WATER VOLUME IN WELL: 3.8 gal [2-INCH CASING = 0.16 GAL/FT] [4-INCH CASING = 0.65 GAL/FT] [6-INCH CASING = 1.47 GAL/FT] [1 GAL = 3.78 L]	
·	LOCATION MAP
CALCULATED PURGE VOL. (GAL): 11. 4 (L): 43 ACTUAL PURGE PURGE METHOD: POLY BAILER SAMPLE METH	VOL. (GAL): 11.4 (L): 43

FIELD MEASUREMENTS

Time	Depth to Water (FT)	Vol (L)	Temp (Deg. F)	pН	EC	Clarity	Turbidity (NTU)	Remarks
15:11		1	62.7	7.37	1.43			OBOR PRODUCT PLETENT
15:25		37	64.4	6 54	1.48			IN BAILER
15,26	· · · · · · · · · · · · · · · · · · ·	38	64.6	6.48	1.48			
15:27		35	64.6	6.48	1.44			
15:28		40	64.5	646	1.43			
15:29		41	64.4	6.46	1.43			
15:30		42	64.5	6.45	1.43			
15:31		43	64.3	6.46	1.43			
15:35							7200	SAMPLE TAKEN

SIGNATURE:	·
•	

WATER VOL. IN DRUM: 1007.
NEED NEW DRUM?: 483

PROJECT NO.: 267 DATE: 3/22/96	WELL NO.: MW-2
PROJECT NAME: ¿ REDIT WORLD	WELL DIAMETER: 2 ft
PROJECT LOCATION: 2345 8 144 55	TOC ELEV:
SAMPLER: MRV	LOCK NO.:
ANALYSES: TOHE BIEN	
WELL DEPTH (from construction detail):	
WELL DEPTH (measured): 33.60 SOFT BOTTOM?: WESDEPTH TO PRODUCT 11.31 DEPTH TO WATER: 11.416 TIME: 14:15	BURY AND]
PRESSURE (circle one)?: YES OR NO	
IF YES, WAS PRESSURE (circle one): POSITIVE OR NEGATIVE?	7.4
WATER VOLUME IN WELL: 3-6 GAL [2-INCH CASING = 0.16 GAL/FT] [4-INCH CASING = 0.65 GAL/FT] [6-INCH CASING = 1.47 GAL/FT] [1 GAL = 3.78 L]	
	LOCATION MAP
CALCULATED PURGE VOL. (GAL): 10.7 (L): 40.4 ACTUAL PURGE	VOL. (GAL):(L):(
_	IOD: PULY BAILER

FIELD MEASUREMENTS

Time	Depth to Water (FT)	Vol (L)	Temp (Deg. F)	pН	EC	Clarity	Turbidity (NTU)	Remarks
14:22		1	60.8	6,75	1.01			FLOATING PRODUCT
14:35		35	61.2	6.47	1.14			
14:36		36	63.9	6.45	1.16			
14:37		37	64.2	6.43	1.17			
14:38		38	64.3	6.43	1.20	· -		
14:39		39	64.3	6.45	1.20			
14:40		40	64.3	6.48	1.20			
14:41	-1	41	64.5	6.45	1.20			
14:45				1]		95.7	SAMPLE TAKEN

·	MORO	WATER VOL. IN DRUM
SIGNATURE:_	Mesia	NEED NEW DRUM?

PROJECT NO .: 267 DATE: 3/21/56	WELL NO .: TMW-2
PROJECT NAME: e REDIT WOOLD	WELL DIAMETER: 2"
PROJECT LOCATION: 2345 8 14 455	TOC ELEV:
SAMPLER: MAV	LOCK NO.:
ANALYSES: TPHG BIEX	
WELL DEPTH (from construction detail):	
WELL DEPTH (measured): 34.82 SOFT BOTTOM?: 00	
DEPTH TO WATER: 10.54 TIME: 14:20	
PRESSURE (circle one)?: YES OR (10)	Bette
IF YES, WAS PRESSURE (circle one): POSITIVE OR NEGATIVE?	
3.9	7MW-4
WATER VOLUME IN WELL: 2000 9AL	•
[2-INCH CASING = 0.16 GAL/FT] [4-INCH CASING = 0.65 GAL/FT]	
[6-INCH CASING = 1.47 GAL/FT] [1 GAL = 3.78 L]	
	LOCATION MAP
CALCULATED PURGE VOL. (GAL): 11.6 (L): 44 ACTUAL PURGE	E VOL. (GAL): (L): 44
· · · · · · · · · · · · · · · · · · ·	HOD: POLY BAILER
EVELD MEASUREMENTS	

FIELD MEASUREMENTS

Time	Depth to Water (FT)	Vol (L)	Temp (Deg. F)	pН	EC	Clarity	Turbidity (NTU)	Remarks
15:45		1	64.7	6.60	1.36			NO OPEN NO SHEEN
16:02		38	65.6	6.64	1.41			
16:03		39	66.5	6.64	1.47			
16304		40	66.6	6.67	1.47			
16:05		41	66.7	6.66	1.43	<u> </u>		
16:06		42	66.7	6.70	1.43			
16:07		43	66.7	6.72	1.44			
16:08		44	66.3	6.70	1.43			
16.15							7200	JAMPUE TAKEN

WATER VOL. IN DRUM: 190% NEED NEW DRUM?: 187

PROJECT NO .: 267 DATE: 3/22/96	WELL NO.: 1461-3
PROJECT NAME: CREDIT WORLD	WELL DIAMETER: 2"
PROJECT LOCATION: 2345 F 144 5-	TOC ELEV:
SAMPLER: MAY	LOCK NO.:
ANALYSES: TPHE BTEX	
WELL DEPTH (from construction detail):	
WELL DEPTH (measured): 34.91 SOFT BOTTOM?: NO DEPTH TO PRODUCT 12.77 DEPTH TO WATER: 12.81 TIME: 14:25	pw-3 force
PRESSURE (circle one)?: YES OR NO	
IF YES, WAS PRESSURE (circle one): POSITIVE OR NEGATIVE?	
WATER VOLUME IN WELL: 3.5 q AL [2-INCH CASING = 0.16 GAL/FT] [4-INCH CASING = 0.65 GAL/FT] [6-INCH CASING = 1.47 GAL/FT] [1 GAL = 3.78 L]	
	LOCATION MAP
CALCULATED PURGE VOL. (GAL): 10.5 (L): 39.6 ACTUAL PURGE	VOL. (GAL): 10.5 (L): 40
PURGE METHOD: POLY BAILER SAMPLE METH	HOD: PULY BAILER

FIELD MEASUREMENTS

Time	Depth to Water (FT)	Vol (L)	Temp (Deg. F)	pН	EC	Clarity	Turbidity (NTU)	Remarks	
12:37		1	63.5	7.26	1.63			STRONG ODOR, SHEEN	
14:51		34	61.9	776	1.22				
14:52	·	35	62.9	7.03	1.22				
H:53		36	63.3	6.97	1.16				
14:54		37	63.5	6.93	1.18				
14:55		38	63.6	6.87	1.21				
14:56		39	63.5	6.86	1.22				
14:57		40	63.6	6.80	1.21		35.2		
15:00					Ì			SAMPLE TAKEN	

M.ODL	WATER VOL. IN DRUM:
SIGNATURE: WURD	NEED NEW DRUM?: YET

PROJECT NO.: 267 DATE: 3/22/96	WELL NO .: Thu
PROJECT NAME: CREDIT WORLD	WELL DIAMETER: 2"
PROJECT LOCATION: 2345 & 14 1/ JT	TOC ELEV:
SAMPLER: MCV	LOCK NO.:
ANALYSES: TPH6 BTEX	
WELL DEPTH (from construction detail):	
WELL DEPTH (measured): 23,45 SOFT BOTTOM?: 465 DEPTH TO PRODUCT 7.54 DEPTH TO WATER: 1.59 TIME: 14:17	Bib6 OTMW-5
PRESSURE (circle one)?: YES OR (NO)	
IF YES, WAS PRESSURE (circle one): POSITIVE OR NEGATIVE?	
WATER VOLUME IN WELL: 2.5 q L [2-INCH CASING = 0.65 GAL/FT]	
[6-INCH CASING = 1.47 GAL/FT] [1 GAL = 3.78 L]	
	LOCATION MAP
CALCULATED PURGE VOL. (GAL): 7.5 (L): 28.3 ACTUAL PURG	GE VOL. (GAL): (L): 29
	THOD: POLY BAILER
FUNDE MILITION. 1 VO 1 13 -1081	

FIELD MEASUREMENTS

Time	Depth to Water (FT)	Vol (L)	Temp (Deg. F)	pН	EC	Clarity	Turbidity (NTU)	Remarks
14:55)	59.3	6.42	1.55			SCIENT ODOR
15:07		23	60.1	6.39	1,58			
15:08		24	61.4	6.37	1.65			
15:09		25	62.0	6.38	1.68			
15:10		26	62,2	6.37	1.66			
15:11		27	62.4	6.37	1.64			
15:12		28	62.5	6.38	1.67			
15:13		29	62.2	0	1.65		<u> </u>	
15:15		1		6.40				SAMPLE TO FEW

SIGNATURE:	the	RE	

WATER VOL. IN DRUM: 10-92 NEED NEW DRUM?: VES

SAMPLE HANDLING PROCEDURES

Soil and groundwater samples will be packaged carefully to avoid breakage or contamination and will be delivered to the laboratory in an iced-cooler. The following sample packaging requirements will be followed.

- Sample bottle/sleeve lids will not be mixed. All sample lids will stay with the original containers and have custody seals affixed to them.
- . Samples will be secured in coolers to maintain custody, control temperature and prevent breakage during transportation to the laboratory.
- . A chain-of-custody form will be completed for all samples and accompany the sample cooler to the laboratory.
- . Ice, blue ice or dry ice (dry ice will be used for preserving soil samples collected for the Alameda County Water District) will be used to cool samples during transport to the laboratory.
- Water samples will be cooled with crushed ice. In the Alameda County Water District, water samples will be buried in the crushed ice with a thermometer, and the laboratory will be requested to record thermometer temperature at the time of receipt.
- Each sample will be identified by affixing a pressure sensitive, gummed label or standardized tag on the container(s). This label will contain the site identification, sample identification number, date and time of sample collection and the collector's initials.
- . Soil samples collected in brass tubes will be preserved by covering the ends with Teflon tape and capping with plastic end-caps. The tubes will be labeled, sealed in quart size bags and placed in an iced-cooler for transport to the laboratory.

All groundwater sample containers will be precleaned and will be obtained from a State Department of Health Services certified analytical laboratory.

Sample Control/Chain-of-Custody: All field personnel will refer to this workplan to verify the methods to be employed during sample collection. All sample gathering activities will be recorded in the site file; all sample transfers will be documented in the chain-of-custody; samples will be identified with labels; all sample bottles will be custody-sealed. All information is to be recorded in waterproof ink. All TPE field personnel are personally responsible for sample collection and the care and custody of collected samples until the samples are transferred or properly dispatched.

The custody record will be completed by the field technician or professional who has been designated by the TPE project manager as being responsible for sample shipment to the appropriate laboratory. The custody record will include, among other things, the following information: site identification, name of person collecting the samples, date and time samples were collected, type of sampling conducted (composite/grab), location of sampling station, number and type of containers used and signature of the TPE person relinquishing samples to a non-TPE person with the date and time of transfer noted. The relinquishing individual will also put all the specific shipping data on the custody record.

Records will be maintained by a designated TPE field employee for each sample: site identification, sampling location, station number, date, time, sampler's name, designation of the sample as a grab or composite, notation of the type of sample (e.g., groundwater, soil boring, etc.), preservatives used, onsite measurement data and other observations or remarks.

GROUNDWATER MONITORING WELL SAMPLING PROCEDURES

Groundwater monitoring wells will not be sampled until at least 24 to 72 hours (according to local regulatory guidelines) after well development. Groundwater samples will be obtained using a bladder pump, clear Teflon bailer or dedicated polyethylene bailer. Prior to collecting samples, the sampling equipment will be thoroughly decontaminated to prevent introduction of contaminants into the well and to avoid cross-contamination. Monitoring wells will be sampled after 3 to 10 wetted casing volumes of groundwater have been evacuated and pH, electrical conductivity and temperature have stabilized as measured with a Hydac Digital Tester. If the well is emptied before 3 to 10 well volumes are removed, the sample will be taken when the water level in the well recovers to 80% or more of its initial water level.

When a water sample is collected, turbidity of the water will be measured and recorded with a digital turbidimeter. Degree of turbidity will be measured and recorded in nephelometric turbidity units (NTU).

TPE will also measure the thickness of any floating product in the monitoring wells using an interface probe or clear Teflon or polyethylene bailer. The floating product will be measured after well development but prior to the collection of groundwater samples. If floating product is present in the well, TPE will recommend to the client that product removal be commenced immediately and reported to the appropriate regulatory agency.

Unless specifically waived or changed by the local, prevailing regulatory agency, water samples will be handled and preserved according to the latest United States Environmental Protection Agency methods as described in the Federal Register (Volume 44, No. 233, Page 69544, Table II) for the type of analysis to be performed.

Development and/or purge water will be stored on site in labeled containers. The disposal of the containers and development and/or purge water is the responsibility of the client.

Units of Measurement

MEASUREMENTS

Purged Water Parameter: During purging, discharged water will be measured for the following parameters.

Parameter	Units of Measuren
рН	None
Electrical Conductivity	Micromhos
Temperature	Degrees F or C
Depth to Water	Feet/Hundredths
Volume of Water Discharged	Gallons
Turbidity	NTU

Documentation: All parameter measurements will be documented in writing on TPE development logs.

sample is poured into appropriate containers to simulate actual sampling conditions. Contamination due to air exposure can vary considerably from site to site.

The laboratory will not be informed about the presence of trip and field blanks, and false identifying numbers will be put on the labels. Full documentation of these collection and decoy procedures will be made in the site log book.

Duplicate samples are identical sample pairs (collected in the same place and at the same time), placed in identical containers. For soils, adjacent sample liners will be analyzed. For the purpose of data reporting, one is arbitrarily designated the sample, and the other is designated as a duplicate sample. Both sets of results are reported to give an indication of the precision of sampling and analytical methods.

The laboratory's precision will be assessed without the laboratory's knowledge by labeling one of the duplicates with false identifying information. Data quality will be evaluated on the basis of the duplicate results.

Laboratory OA/OC: Execution of a strict QA/QC program is an essential ingredient in high-quality analytical results. By using accredited laboratory techniques and analytical procedures, estimates of the experimental values can be very close to the actual value of the environmental sample. The experimental value is monitored for its precision and accuracy by performing QC tests designed to measure the amount of random and systematic errors and to signal when correction of these errors is needed.

The QA/QC program describes methods for performing QC tests. These methods standards, check standards (both blanks, calibration involve analyzing method Agency-certified Environmental Protection and the United States independent Internal QC also requires standards), duplicates, replicates and sample spikes. adherence to written methods, procedural documentation and the observance of good laboratory practices.

TAT

LOG NUMBER: 6278

DATE SAMPLED: 03/22/96 DATE RECEIVED: 03/25/96

DATE ANALYZED: 04/02/96
DATE REPORTED: 04/05/96

DATE REVISED:

04/29/96

CUSTOMER:

Tank Protect Engineering

REQUESTER:

Jeff Farhoomand

PROJECT:

No. 267, Credit World Auto Sales, 2345 East 14th Street,

Oakland, CA 94601

	Sample T			Type:	Water	···		
			MW-1		MW-2	·	1W-3	
Method and <u>Constituent</u> :	<u>Units</u>	Concen- tration	Reporting	Concen- tration		Concen- tration	Reporting <u>Limit</u>	
DHS Method: Total Petroleum Hydro- carbons as Gasoline	ug/l	19,000	12,000	9,800	6,200	16,000	1,200	
EPA Method 8020 for:								
Methyl t-Butyl Ether	ug/l	ND	2,500	ND	1,200	ND	250	
Benzene	ug/l	6,000	250	2,200	120	3,100	25	
Toluene	ug/l	470	250	ND	120	· 75	25	
Ethylbenzene	ug/l	260	250	400	120	69	25	
Xylenes	ug/1	ND	750	ND	380	350	75	
		7	「MW−4	TMW-5			MW-6	
Method and <u>Constituent</u> :	<u>Units</u>	Concen- tration		Concen- tration		Concen- tration	Reporting <u>Limit</u>	
DHS Method:								
Total Petroleum Hydro- carbons as Gasoline	ug/l	ND	50	56,000	12,000	ND	50	
EPA Method 8020 for:								
Methyl t-Butyl Ether	ug/l	ND	5.0	ND	2,500	ND	5.0	
Benzene	ug/1	ND	0.50	11,000	250	ND	0.50	
Toluene	ug/l	ND	0.50	800	250	ND	0.50	
Ethylbenzene	ug/1	ND	0.50	2,300	250	ND	0.50	
Xylenes	ug/l	ND	1.5	4,500	750	ND	1.5	

Concentrations reported as ND were not detected at or above the reporting limit. This page was revised to present lower Reporting Limits for sample MW-3.

Trace Analysis Laboratory, inc.

LOG NUMBER:

6278

DATE SAMPLED: DATE RECEIVED:

03/22/96 03/25/96

DATE ANALYZED: DATE REPORTED: 04/02/96 04/05/96

PAGE:

Twa

Sample Type:

Water

		Metho	d Blank
Method and		Concen-	Reporting
Constituent:	<u>Units</u>	<u>tration</u>	<u>limit</u>
DHS Method:			
Total Petroleum Hydro-			:
carbons as Gasoline	ug/1	ND	\$ 0
EPA Method 8020 for:			
Methyl t-Butyl Ether	ug/1	ND	5.0
Benzene	ug/1	ND	_∶ 0.50
Toluene	ug/l	ND	0.50
Ethylbenzene	ug/1	ND	0.50
Xylenes	ug/1	ND	1.5

OC Summary:

% Recovery:

108

% RPD: 0.20

Concentrations reported as ND were not detected at or above the reporting limit.

IKYCE YNYTAZIZ

Louis W. DuPuis

Quality Assurance/Quality Control Manager

TRACE ANALYSIS

25107831512

19:27

TANK PROJECT EMGINEERING Environmental Management

TANK PROTECT ENGINEERING

2821 WHIPPLE ROAD UNION CITY, CA 94587 (415)429-8088 (800)523-8088 FAK(415)429-8089

LAB:	TRACE	ANALYSIS
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TURNAROUND: 14 DAY

P.O. #: 1235

6278

CHAIN OF CUSTODY

PAGE / OF /

MA	NAME.	ADDRES & . D, UNIT	ZB49 ZB49 SAMD VA 11	TELEP L ME	10 ME	ADDRESS ALD TUNBER NUMBER 87 (415) 4 SAMPLING		C	(1) YPE OF ON- IWER	18.50							REMARKS
mw-1	3/12	15:35		بر	'			V	iomi DAS	×	4			1		Í	
<u> 4w-2</u>		H:49	1					4	ye	X	K		Ш	1		1	
MW-3	"	اح: 5		П						X	X						
Thu-9	1	كاناا	1							x	X						
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THW-S	1	16:45	T					١,		1	K		П	Ţ		Ī	-
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L.			·····								1	7					DATE: 3/21/96