

#2116 • decrease monitoring to biannual  
• must implement remediation ASAP.

January 19, 2000

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

Re: Fourth Quarter Report, 1999, 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 prior to January 1, 1998 is summarized in TPE's January 14, 1998 Fourth Quarter Report, 1997, Credit World Auto Sales, 2345 E. 14th Street, Oakland, CA 94601. Work conducted after January 1, 1998 is summarized below.

Work conducted by TPE during first quarter, 1998:

- January 14, 1998 - Submitted a Fourth Quarter Report, 1997, Credit World Auto Sales, 2345 E. 14th Street, Oakland, CA 94601 to Messrs. Wong for their approval and delivery to the Alameda County Health Care Services Agency (ACHCSA).
- March 25, 1998 - Supervised the removal of 500 gallons of hydrocarbon contaminated groundwater stored in drums.
- March 24 and 25, 1998 - 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 groundwater samples from wells MW-1 through TMW-5 for analysis for total petroleum hydrocarbons as gasoline (TPHG) and methyl t-butyl ether,

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benzene, toluene, ethyl benzene and xylene (MBTEX). Additionally, a trip blank was analyzed for TPHG and MBTEX.

Work conducted by TPE during second quarter, 1998:

- . June 29, 1998 - Measured depth-to-groundwater in monitoring wells MW-1 through MW-3, TMW-4, and TMW-5, for evaluation of groundwater flow direction and gradient. Collected a groundwater sample from each well for analysis for TPHG, BTEX and MTBE. Additionally, analyzed 1 trip blank sample for TPHG and MBTEX.

Work conducted by TPE during third quarter, 1998:

- . July 27, 1998 - Submitted a Second Quarter Report, 1998, Credit World Auto Sales, 2345 E. 14th Street, Oakland, CA 94601 to Messrs. Wong for their approval and delivery to ACHCSA.
- . September 28, 1998 - Loosened well caps on all wells to allow depth-to-groundwater to stabilize to atmospheric pressure for groundwater gradient determination.
- . October 2, 1998 - Measured depth-to-groundwater in monitoring wells MW-1 through MW-3, TMW-4, and TMW-5, for evaluation of groundwater flow direction and gradient. Collected a groundwater sample from each well for analysis for TPHG, BTEX and MTBE. Additionally, analyzed a trip blank sample for TPHG, BTEX and MTBE.

Work conducted by TPE during fourth quarter, 1998:

- . December 9, 1998 - Loosened well caps on all wells to allow depth-to-groundwater to stabilize to atmospheric pressure for groundwater gradient determination.

- December 10, 1998 - Measured depth-to-groundwater in monitoring wells MW-1 through MW-3, TMW-4, and TMW-5, for evaluation of groundwater flow direction and gradient. Collected a groundwater sample from each well for analysis for TPHG, BTEX and MTBE. Additionally, analyzed a trip blank sample for TPHG, BTEX and MTBE.
- December 21, 1998 - Submitted a Fourth Quarter Report, 1998, Credit World Auto Sales, 2345 E. 14th Street, Oakland, CA 94601 to Messrs. Wong for their approval and delivery to ACHCSA.

Work conducted by TPE during first quarter, 1999:

- March 26, 1999 - 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 groundwater samples from wells MW-1 through TMW-5 for analysis for TPHG, BTEX and MTBE. Additionally, analyzed a trip blank sample for TPHG, BTEX and MTBE.

Work conducted by TPE during second quarter, 1999:

- June 24, 1999 - Submitted a First Quarter Report, 1999, Credit World Auto Sales, 2345 E. 14th Street, Oakland, CA 94601 to Messrs. Wong for their approval and delivery to ACHCSA.
- June 11 and 15, 1999 - 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 groundwater samples from wells MW-1 through TMW-5 for analysis for TPHG, BTEX and MTBE. Additionally, analyzed a trip blank sample for TPHG, BTEX and MTBE.
- June 28, 1999 - Submitted a Second Quarter Report, 1999, Credit World Auto Sales, 2345 E. 14th Street, Oakland, CA 94601 to Messrs. Wong for their approval and delivery to ACHCSA.

Work conducted by TPE during third quarter, 1999:

- . October 26, 1999 - Submitted a Third Quarter Report, 1999, Credit World Auto Sales, 2345 E. 14th Street, Oakland, CA 94601 to Messrs. Wong for their approval and delivery to ACHCSA.
- . September 15, 1999 - 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 groundwater samples from wells MW-1 through TMW-5 for analysis for TPHG, BTEX and MTBE. Additionally, analyzed a trip blank sample for TPHG, BTEX and MTBE.

WORK CONDUCTED BY TPE DURING FOURTH QUARTER, 1999:

- . December 28, 1999 - 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 groundwater samples from wells MW-1 through TMW-5 for analysis for TPHG, BTEX and MTBE. Additionally, analyzed a trip blank sample for TPHG, BTEX and MTBE.

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

#### Groundwater Gradient

On December 28, 1999, a representative from TPE loosened well caps on wells MW-1 through MW-3, TMW-4 and TMW-5 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.

Depth-to-groundwater was measured from the top of casing (TOC) in all wells to the nearest 0.01 foot using an electronic solinst water level sound. 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.

Attached Figure 1 is a groundwater gradient map constructed from the data collected on December 28, 1999. Groundwater flow direction was north-northwest with a average gradient of .02 feet per foot. Average groundwater elevations, changes in average groundwater elevations, groundwater gradient, and groundwater flow directions are tabulated in attached Table 2.

#### Groundwater Sampling and Analytical Results

On December 28, 1999 groundwater samples were collected from groundwater monitoring wells MW-1, MW-2, MW-3, TMW-4, and TMW-5. Before sampling, each well was purged of about 6 to 10 gallons of groundwater with a dedicated polyethylene bailer 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 Priority Environmental Labs, located in Milpitas, California accompanied by chain-of-custody documentation.

All groundwater samples were analyzed for TPHG by the United States Environmental Protection Agency (EPA) Method 5030/8015 and for BTEX and MTBE by EPA Method 602.

During this quarterly period, floating product was measured in monitoring wells MW-1, MW-2 and MW-3,. A sheen was observed in TMW-5, Table 3 summarizes the thickness of floating product measured in each well. Hydrocarbon odor and/or sheen were observed in all wells, except TMW-4.

Purge water was stored on site in 55-gallon drums labeled to show material stored, data 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.

TPHG was detected in wells MW-1, MW-2, TMW-3, and TMW-5 at concentrations of 27,000 parts per billion (ppb), 75,000 ppb, 4,300, and 25,000 ppb, respectively. No TPHG, MTBE, or BTEX were detected in well TMW-4. The reader is referred to Table 4 for a summary of MTBE and BTEX chemical concentrations.

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

#### CONCLUSIONS AND RECOMMENDATIONS

Floating product was observed in wells MW-1, MW-2 and MW-3. TPE recommends that quarterly groundwater sampling of all five groundwater monitoring wells be continued to evaluate gradient, and to monitor contaminant concentrations and free product from the wells. In addition TPE recommends that TMW-5 surface elevation be re-surveyed. Concentrations of TPHG, MTBE and BTEX appear to be fluctuating in all wells in comparison with the third quarterly monitoring period.

The next sampling event is due in March 2000.

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

TABLE 1  
GROUNDWATER ELEVATION

Well Name	Date	TOC <sup>1</sup> Elevation (Feet MSL <sup>4</sup> )	Depth-to-Water From TOC (Feet)	Depth to Product From TOC (Feet)	Corrected <sup>3</sup> Groundwater Elevation (Feet MSL)
MW-1	08/23/91 <sup>5</sup>	100.00 <sup>2</sup>	15.42	NA <sup>9</sup>	84.58
	04/16/92 <sup>6</sup>	27.33 <sup>7</sup>	16.66	11.54	14.51 <sup>8</sup>
	06/11/93		12.61	12.60	14.73
	08/17/93		14.40	13.63	13.50 <sup>7</sup>
	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
	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
	06/20/96		13.38	12.49	14.63
	09/24/96		14.60	13.40	13.63
	12/27/96		9.17	9.08	18.23
	03/06/97		12.35	ND	14.98
	06/28/97		10.93	10.60	16.65
	09/18/97		13.10	12.93	14.36
	12/30/97		10.96	10.79	16.50
	03/24/98		9.33	ND	18.00
	06/29/98		12.20	ND	15.13
	10/02/98		13.46	ND	13.87
	12/10/98		10.49	ND	16.84
	03/26/99		9.44	ND	17.89
	06/11/99		12.56	12.55	14.77
	09/15/99		14.85	13.85	13.23
	12/28/99		14.50	13.18	13.82
MW-2	08/23/91 <sup>5</sup>	98.585 <sup>2</sup>	13.77	NA	84.815

TABLE 1  
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Well Name	Date	TOC <sup>1</sup> Elevation (Feet MSL <sup>4</sup> )	Depth-to-Water From TOC (Feet)	Depth to Product From TOC (Feet)	Corrected <sup>3</sup> Groundwater Elevation (Feet MSL)
MW-2	04/16/92 <sup>6</sup>	25.92 <sup>7</sup>	15.38	12.57	12.65 <sup>8</sup>
	06/11/93	25.92 <sup>7</sup>	13.185	ND <sup>10</sup>	12.74
	08/17/93		14.04	14.03	11.89
	03/31/94		13.61	13.07	12.72 <sup>8</sup>
	06/27/94	25.92 <sup>7</sup>	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
	06/20/96		13.08	12.71	13.12
	09/30/96		16.67	12.92	12.06
	12/27/96		15.74	8.17	15.86
	03/06/97		12.55	ND	13.37
	06/28/97		11.98	11.94	13.97
	09/18/97		13.44	13.44	12.48
	12/30/97		11.31	ND	14.61
	03/25/98		10.02	ND	15.90
	06/29/98		11.96	ND	13.96
	10/02/98		13.74	ND	12.18
	12/10/98		12.91	10.81	14.58
	03/26/99		9.06	8.86	16.86
	06/11/99		12.18	ND	13.74
	09/15/99		15.59	12.59	12.58
	12/28/99		16.81	12.31	12.49
MW-3	08/23/91 <sup>5</sup>	99.25 <sup>2</sup>	15.07	NA	84.18
	04/16/92 <sup>6</sup>	27.57 <sup>7</sup>	14.14	13.98	13.55 <sup>8</sup>



TABLE 1  
GROUNDWATER ELEVATION

Well Name	Date	TOC <sup>1</sup> Elevation (Feet MSL <sup>4</sup> )	Depth-to-Water From TOC (Feet)	Depth to Product From TOC (Feet)	Corrected <sup>3</sup> Groundwater Elevation (Feet MSL)
MW-3	06/11/93	27.57 <sup>7</sup>	14.275	ND	13.30
	08/17/93		15.77	ND	11.80
	03/31/94		14.35	ND	13.22
	06/27/94		14.77	ND	12.80
	09/16/94		15.42	15.37	12.19
	03/31/95		12.98	12.52	14.94
	06/28/95		14.20	14.15	13.41
	09/28/95		15.17	ND	12.40
	12/26/95		13.33	13.27	14.28
	03/22/96		12.81	12.77	14.79
	06/20/96		13.95	13.88	13.67
	09/24/96		14.86	14.82	12.74
	12/27/96		11.04	10.98	16.58
	03/07/97		13.80	ND	13.77
	06/28/97		13.72	13.66	13.89
	09/18/97		14.76	ND	12.81
	12/30/97		12.97	ND	14.60
	03/24/98		11.75	ND	15.82
	06/29/98		13.38	ND	14.19
	10/02/98		14.42	ND	13.15
	12/08/98		12.55	ND	15.02
	03/26/99		10.54	ND	17.03
	06/15/99		13.91	ND	13.66
	09/15/99		14.70	ND	13.1
	12/28/99		15.16	14.91	12.60
TMW-4	08/17/93	26.50 <sup>7</sup>	13.26	ND	13.24
	03/31/94		12.40	ND	14.10
	06/27/94		12.84	ND	13.66

TABLE 1  
GROUNDWATER ELEVATION

Well Name	Date	TOC <sup>1</sup> Elevation (Feet MSL <sup>4</sup> )	Depth-to-Water From TOC (Feet)	Depth to Product From TOC (Feet)	Corrected <sup>3</sup> Groundwater Elevation (Feet MSL)
TMW-4	09/16/94	26.50 <sup>7</sup>	13.58	ND	12.92
	03/31/95		10.23	ND	16.27
	06/28/95		12.21	ND	14.29
	09/28/95		13.38	ND	13.12
	12/26/95		11.32	ND	15.18
	03/22/96		10.54	ND	15.96
	06/20/96		12.14	ND	14.36
	09/24/96		13.01	ND	13.49
	12/27/96		9.51	ND	16.99
	03/07/97		11.92	ND	14.58
	06/28/97		10.70	ND	15.80
	09/18/97		12.94	ND	13.56
	12/30/97		10.92	ND	15.58
	03/25/98		9.60	ND	16.90
	06/29/98		11.32	ND	15.18
	10/02/98		12.56	ND	13.94
	12/08/98		10.44	ND	16.06
	03/26/99		9.38	ND	17.12
	06/15/99		11.58	ND	14.92
	09/15/99		12.89	ND	13.61
	12/28/99		12.92	ND	13.58
TMW-5	08/17/93	26.51 <sup>7</sup>	12.98	12.95	13.55
	03/31/94		11.39	ND	15.12
	06/27/94		12.24	ND	13.53
	09/16/94		13.02	12.97	13.53
	03/31/95		7.38	ND	19.13
	06/28/95		11.31	11.25	15.25
	09/28/95		14.42	ND	12.09

TABLE 1  
GROUNDWATER ELEVATION

Well Name	Date	TOC <sup>1</sup> Elevation (Feet MSL <sup>4</sup> )	Depth-to-Water From TOC (Feet)	Depth to Product From TOC (Feet)	Corrected <sup>3</sup> Groundwater Elevation (Feet MSL)
TMW-5	12/26/95	26.51 <sup>7</sup>	10.16	10.11	16.38
	03/22/96		7.59	7.54	18.96
	06/26/9 <sup>11</sup>		7.12	ND	NA
	09/30/96 <sup>11</sup>		7.42	ND <sup>10</sup>	NA <sup>9</sup>
	12/27/96 <sup>11</sup>		6.38	ND	NA
	03/07/97 <sup>11</sup>		11.12	ND	NA
	08/17/97 <sup>11</sup>		12.98	12.95	13.55
	09/18/97 <sup>11</sup>		12	ND	---
	12/30/97 <sup>11</sup>		8.97	ND	---
	03/25/98 <sup>11</sup>		7.32	ND	---
	06/29/98 <sup>11</sup>		11.50	ND	---
	10/02/98 <sup>11</sup>		12.56	ND	---
	12/08/98 <sup>11</sup>		10.14	ND	---
	03/26/99 <sup>11</sup>		7.08	ND	---
	06/11/99 <sup>11</sup>		11.40	ND	---
	09/15/99 <sup>11</sup>		12.52	ND	---
	12/28/99 <sup>11</sup>		12.44	ND	---

<sup>1</sup> TOP-OF-CASING.

<sup>2</sup> RELATIVE TO SITE DATUM ESTABLISHED BY ESE.

<sup>3</sup> ELEVATION CORRECTED FOR FLOATING PRODUCT USING 0.75 DENSITY FOR GASOLINE.

<sup>4</sup> MEAN SEA LEVEL.

<sup>5</sup> WATER LEVEL MEASUREMENTS BY ESE.

<sup>6</sup> WATER LEVEL MEASUREMENTS BY NKJ.

<sup>7</sup> TOC SURVEYED 8/10/93 BY PROFESSIONAL ENGINEER.

<sup>8</sup> CORRECTED GROUNDWATER ELEVATION BY TANK PROTECT ENGINEERING.

<sup>9</sup> NOT AVAILABLE.

<sup>10</sup> NOT DETECTED.

<sup>11</sup> WELL TOP DESTROYED DURING REMEDIATION, UNSURVEYED

<sup>12</sup> NOT MEASURED - WELL OBSTRUCTED

TABLE 2  
GROUNDWATER GRADIENTS, FLOW DIRECTIONS,  
AND ELEVATION DATA

Date	Average Groundwater Elevation (Feet-MSL <sup>1</sup> )	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	.0179-.0411	RADIAL
03/31/95	16.48	+3.83	.075	RADIAL
06/28/95	14.09	-2.39	.025-.053	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	.034-.132	RADIAL
06/20/96 <sup>2</sup>	13.95	-2.28	.016	NW
09/30/96 <sup>2</sup>	12.98	-0.97	.019	NW
12/27/96 <sup>2</sup>	16.41	+3.43	.024-.029	N-NW
03/07/97 <sup>2</sup>	14.18	-2.23	.020-.035	N-NW
06/28/97 <sup>2</sup>	15.07	+ .89	.027-.04	NW
09/18/97 <sup>2</sup>	13.30	-1.77	.02-.026	RADIAL
12/30/97 <sup>2</sup>	15.32	+2.02	.025-.030	N-NW
03/25/98 <sup>2</sup>	16.65	+1.34	.021-.033	RADIAL
06/29/98 <sup>2</sup>	14.69	-1.96	.013-.019	NW
10/02/98 <sup>2</sup>	13.35	-1.34	.011-.019	NW
12/08/98 <sup>2</sup>	15.77	+2.42	0.23	NW
03/26/99	17.225	+1.46	0.01	N-NW
06/15/99	14.27	-2.95	0.01	NW
09/15/99	13.13	-1.14	0.011	N-NW
12/28/99	13.12	+ .01	0.02	N-NW

<sup>1</sup> MEAN SEA LEVEL.

<sup>2</sup> DOES NOT INCLUDE DATA FOR TMW-5; WELL TOP DESTROYED DURING REMEDIATION ACTIVITIES.

TABLE 3  
SUMMARY OF FLOATING PRODUCT THICKNESS

Well Name	Date	Depth-to-Water From TOC <sup>1</sup> (Feet)	Depth-to-Product From TOC (Feet)	Product Thickness (Feet)
MW-1	04/16/92 <sup>2</sup>	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
	06/20/96	13.38	12.49	0.089
	09/24/96	14.60	13.40	1.20
	12/27/96	9.17	9.08	0.09
	03/06/97	12.35	ND	---
	06/28/97	10.93	10.60	0.33
	09/18/97*	13.10	12.93	.17
	12/30/97	10.96	10.79	0.17
	03/24/98	9.33	ND	---
	06/29/98	12.20	11.78	0.42
	10/02/98	13.46	13.21	0.25
	12/08/98	10.49	ND	---
	03/26/99	9.44	ND	---
	06/11/99	12.56	12.55	0.005
	09/15/99	14.85	13.85	1.0
	12/28/99	14.50	13.18	1.32
MW-2	04/16/92 <sup>2</sup>	15.38	12.57	2.81
	06/11/93	13.185	ND <sup>3</sup>	---

TABLE 3  
SUMMARY OF FLOATING PRODUCT THICKNESS

Well Name	Date	Depth-to-Water From TOC <sup>1</sup> (Feet)	Depth-to-Product From TOC (Feet)	Product Thickness (Feet)
MW-2	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
	06/20/96	13.08	12.71	0.37
	09/30/96	16.67	12.92	3.75
	12/27/96	15.74	8.17	7.57
	03/06/97	12.55	ND	---
	06/28/97	11.98	11.94	0.04
	09/18/97*	13.44	13.44	TRACE
	12/30/97	11.31	ND	---
	03/25/98	10.02	ND	---
	06/29/98	11.96	ND	---
	10/02/98	13.74	13.55	.187
	12/08/98	12.91	10.81	2.1
	03/26/99	9.06	8.86	0.20
	06/15/99	12.18	ND	---
	09/15/99	15.59	12.59	3.0
	12/28/99	16.81	12.31	4.5
MW-3	04/16/92 <sup>2</sup>	14.14	13.98	0.16
	06/11/93	14.275	ND	---
	08/17/93	15.77	ND	---
	03/31/94	14.35	ND	---

TABLE 3  
SUMMARY OF FLOATING PRODUCT THICKNESS

Well Name	Date	Depth-to-Water From TOC <sup>1</sup> (Feet)	Depth-to-Product From TOC (Feet)	Product Thickness (Feet)
MW-3	06/27/94	14.77	ND	---
	09/16/94	15.42	15.37	---
	03/31/95	12.98	12.52	0.46
	06/28/95	14.20	14.15	0.05
	09/29/95	15.7	ND	---
	12/26/95	13.33	13.27	0.06
	03/22/96	12.81	12.77	0.04
	06/20/96	13.95	13.88	0.07
	09/24/96	14.86	14.82	0.04
	12/27/96	11.04	10.98	0.06
	03/07/97	13.80	ND	---
	06/28/97	13.72	13.66	---
	09/18/97	14.76	ND	---
	12/30/97	12.97	ND	---
	03/24/98	11.75	ND	---
	06/29/98	13.38	ND	---
	10/02/98	14.42	ND	---
	12/08/98	12.55	ND	---
	03/26/99	10.54	ND	---
	06/15/99	13.91	ND	---
	09/15/99	14.70	ND	SHEEN
	12/28/99	15.16	14.91	0.25
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	---



TABLE 3  
SUMMARY OF FLOATING PRODUCT THICKNESS

Well Name	Date	Depth-to-Water From TOC <sup>1</sup> (Feet)	Depth-to-Product From TOC (Feet)	Product Thickness (Feet)
TMW-4	09/28/95	13.38	ND	---
	12/26/95	11.32	ND	---
	03/22/96	10.54	ND	---
	06/20/96	12.14	ND	---
	09/24/96	13.01	ND	---
	12/27/96	9.51	ND	---
	03/07/97	11.92	ND	---
	06/28/97	10.70	ND	---
	09/18/97*	12.94	ND	---
	12/30/97	10.92	ND	---
	03/25/98	9.60	ND	---
	06/29/98	11.32	ND	---
	10/02/98	12.56	ND	---
	12/08/98	10.44	ND	---
	03/26/99	9.38	ND	---
	06/15/99	11.58	ND	---
	09/15/99	12.89	ND	---
	12/28/99	12.92	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
	06/20/96 <sup>11</sup>	7.12	ND	---
	09/30/96 <sup>11</sup>	7.42	ND	---

TABLE 3  
SUMMARY OF FLOATING PRODUCT THICKNESS

Well Name	Date	Depth-to-Water From TOC <sup>1</sup> (Feet)	Depth-to-Product From TOC (Feet)	Product Thickness (Feet)
TMW-5	12/27/96 <sup>11</sup>	6.38	ND	---
	03/07/97 <sup>11</sup>	11.12	ND	---
	06/28/97 <sup>12</sup>	NM <sup>12</sup>	ND <sup>12</sup>	---
	09/18/97*	12.00	ND	---
	12/30/97	8.97	ND	---
	03/25/98	7.32	ND	---
	06/29/98	11.50	ND	---
	10/02/98	12.56	ND	---
	12/08/98	10.14	ND	---
	03/26/99	7.08	ND	---
	06/11/99	11.40	ND	---
	09/15/99	12.52	ND	SHEEN
	12/28/99	12.44	ND	SMEAR/ODOR

<sup>1</sup> TOP-OF-CASING.

<sup>2</sup> RELATIVE TO SITE DATUM ESTABLISHED BY ESE.

<sup>3</sup> ELEVATION CORRECTED FOR FLOATING PRODUCT USING 0.75 DENSITY FOR GASOLINE.

<sup>4</sup> MEAN SEA LEVEL

<sup>5</sup> WATER LEVEL MEASUREMENTS BY ESE.

<sup>6</sup> WATER LEVEL MEASUREMENTS BY NKJ.

<sup>7</sup> TOC SURVEYED 8/10/93 BY PROFESSIONAL ENGINEER.

<sup>8</sup> CORRECTED GROUNDWATER ELEVATION BY TANK PROTECT ENGINEERING.

<sup>9</sup> NOT AVAILABLE.

<sup>10</sup> NOT DETECTED.

<sup>11</sup> WELL TOP DESTROYED DURING REMEDIATION

<sup>12</sup> NOT MEASURED - WELL OBSTRUCTED

\* VISUAL MEASUREMENTS FROM BAILER

TABLE 4  
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS  
(ppb<sup>1</sup>)

Sample ID Name	Date	TPHG	Methyl t-Butyl Ether	Benzene	Toluene	Ethyl-benzene	Xylenes
MW-1	08/17/93	110,000	NA <sup>2</sup>	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	47	260	<750
	06/20/96	15,000	910	2,900	100	240	98
	09/24/96	20,000	340	4,800	220	300	770
	12/27/96	24,000	<5.0	5,900	440	310	740
	03/07/97	30,000	<5.0	5,700	370	290	780
	06/28/97	54,000	<5.0	5,200	1,300	1,000	4,900
	09/18/97	54,000	<5.0	5,300	1,200	1,100	4,600
	12/30/97	61,000	1,400	4,300	1,800	1,600	6,900
	03/24/98	24,000	2,000	1,000	1,000	1,300	4,300
	06/29/98	130,000	3,300	3,800	370	1,200	4,200
	10/02/98	22,000	<0.50	66	21	26	140
	12/10/98	32,000	<250	4,600	970	1,700	4,900
	03/26/99	230,000	<0.50	370	290	280	720
	06/11/99	180,000	<0.50	210	170	220	400
	09/15/99	21,000	<250	3,800	280	590	2,200
FP	12/28/99	27,000	<0.5	48	36	46	83
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

TABLE 4  
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS  
(ppb<sup>1</sup>)

Sample ID Name	Date	TPHG	Methyl t-butyl ether	Benzene	Toluene	Ethyl-benzene	Xylenes
MW-2	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
	06/20/96	35,000	550	770	<0.50	240	<0.50
	09/30/96	58,000	<5.0	1,600	230	2,200	4,000
	12/27/96	29,000	<5.0	2,100	<0.50	1,200	1,800
	03/07/97	13,000	<5.0	1,300	37	290	180
	06/28/97	12,000	<5.0	840	<0.50	640	360
	09/18/97	12,000	<5.0	680	<0.50	320	84
	12/30/97	13,000	<5.0	1,100	40	350	220
	03/25/98	8,100	670	1,300	51	410	230
	06/29/98	12,000	430	880	13	180	72
	10/02/98	47,000	<0.50	140	100	110	200
	12/10/98	26,000	<1,000	1,000	210	1,500	1,900
	03/26/99	110,000	<0.50	190	150	120	380
	06/11/99	190,000	<0.50	310	250	320	540
	09/15/99	25,000	<1,000	720	<100	1,300	1,600
PP	12/28/99	75,000	<0.50	130	98	130	230
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
	06/20/96	8,500	220	1,400	28	140	15

TABLE 4  
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS  
(ppb<sup>1</sup>)

Sample ID Name	Date	TPHG	Methyl t-butyl ether	Benzene	Toluene	Ethyl-benzene	Xylenes
MW-3	09/24/96	12,000	<5.0	2,400	87	340	110
	12/27/96	5,800	240	1,700	28	<0.50	42
	03/10/97	9,000	<5.0	1,700	<0.50	110	<0.50
	06/28/97	15,000	<5.0	2,200	<0.50	160	190
	09/18/97	28,000	<5.0	3,800	<0.50	100	<0.50
	12/30/97	21,000	300	2,200	<0.50	31	<0.50
	03/24/98	2,300	85	870	7.2	20	<0.50
	06/29/98	6,500	140	1,300	12	62	14
	10/02/98	11,000	<0.50	31	27	35	69
	12/10/98	<2,500	<250	2,800	68	42	55
	03/26/99	10,000	<0.50	21	14	10	41
	06/15/99	87,000	<0.50	90	71	92	180
	09/15/99	8,700	<100	2,100	71	110	66
PP	12/28/99	4,300	<0.50	7.7	5.2	7.2	13
TMW-4	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
	06/20/96	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	09/24/96	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	12/27/96	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	03/10/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	06/27/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	09/18/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	12/30/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	03/25/98	<50	<5.0	<0.50	<0.50	<0.50	<0.50

TABLE 4  
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS  
(ppb<sup>1</sup>)

Sample ID Name	Date	TPHG	Methyl t-butyl ether	Benzene	Toluene	Ethyl-benzene	Xylenes
TMW-4	06/29/98	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	10/02/98	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/10/98	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	03/26/99	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	06/15/99	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	09/15/99	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	12/28/99	<50	<0.50	<0.50	<0.50	<0.50	<0.50
TMW-5	08/17/93	120,000	NA	640	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	3,500	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	11,000	800	2,300	4,500
	06/26/96	30,000	830	4,000	180	1,500	2,500
	09/30/96	6,900	<5.0	1,600	79	130	370
	12/27/96	78,000	<5.0	12,000	1,900	2,900	9,700
	03/10/97	84,000	<5.0	9,900	1,100	2,600	8,800
	06/28/97	NA	NA	NA	NA	NA	NA
	09/18/97	65,000	<5.0	8,000	<0.5	2,000	4,700
	12/30/97	79,000	<5.0	6,400	340	2,300	5,500
	03/25/98	20,000	2,400	6,000	260	2,700	5,800
	10/08/98	46,000	<0.50	120	98	120	240
	12/10/98	46,000	<1,200	5,900	320	2,200	5,400
	03/26/99	35,000	<0.50	69	61	37	120
	06/11/99	26,000	<0.50	29	32	43	72
	09/15/99	37,000	<1,000	7,300	400	2,400	6,000
	12/28/99	25,000	<0.50	44	32	41	75
TMW-6	09/18/97 <sup>3</sup>	<50.0	<5.0	<0.5	<0.5	<0.5	<0.5

TABLE 4  
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS  
(ppb<sup>1</sup>)

Sample ID Name	Date	TPHG	Methyl t-butyl ether	Benzene	Toluene	Ethyl-benzene	Xylenes
TMW-6	12/30/97 <sup>3</sup>	<50.0	<5.0	<0.5	<0.5	<0.5	<0.5
	03/25/98 <sup>3</sup>	<50.0	<5.0	<0.5	<0.5	<0.5	<0.5
	06/29/98 <sup>3</sup>	<50.0	<5.0	<0.5	<0.5	<0.5	<0.5
	10/02/98 <sup>3</sup>	NA	NA	NA	NA	NA	NA
	12/10/9 <sup>3</sup>	NA	NA	NA	NA	NA	NA
	03/26/99 <sup>3</sup>	<50	<0.50	<0.05	<0.50	<0.50	<0.50
	06/15/99 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<0.50	<0.50
2 →	09/15/99 <sup>3</sup>	33,000	<1,000	6,200	300	2,000	4,800
MW-6T	12/28/99 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<0.50	<0.50

<sup>1</sup> PARTS PER BILLION

<sup>2</sup> NOT ANALYZED

<sup>3</sup> TRIP BLANK

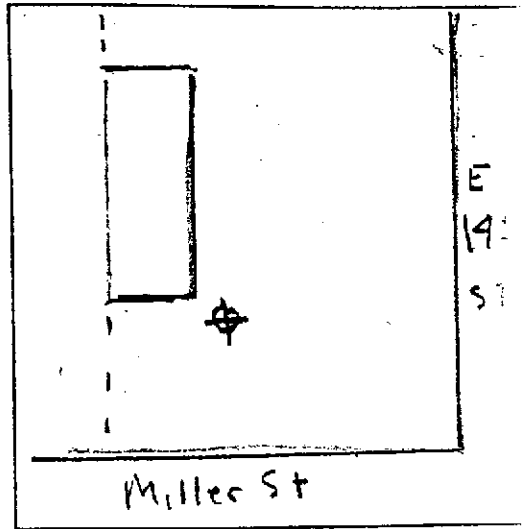
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**RECORD OF WATER SAMPLING**

PROJECT NO.: 267 DATE: 12/28/99  
 PROJECT NAME: Credit World  
 PROJECT LOCATION: 2345 E. 14th OAKLAND  
 SAMPLER: R Dreesen  
 ANALYSES: Tph-g / MBTEX  
 WELL DEPTH (from construction detail): 35  
 WELL DEPTH (measured): - SOFT BOTTOM?: -  
 DEPTH TO WATER: 14.5 TIME: 1100  
 PRESSURE (circle one?): YES OR NO Not determined  
 IF YES, WAS PRESSURE (circle one): POSITIVE OR NEGATIVE?

WELL NO.: Mw1  
 WELL DIAMETER: 2  
 TOC ELEV: 27.33  
 LOCK NO.: \_\_\_\_\_

WATER VOLUME IN WELL: 3.28 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]



CALCULATED PURGE VOL. (GAL): 9.84 (L): \_\_\_\_\_ ACTUAL PURGE VOL. (GAL): 10 (L): \_\_\_\_\_  
 PURGE METHOD: Hand Bail SAMPLE METHOD: Disposable Bail

**FIELD MEASUREMENTS**

Time	Depth to Water (FT)	Vol (L)	Temp (Deg. F)	pH	EC	Clarity	Turbidity (NTU)	Remarks
1252	-	1	64.7	4.34	.66	CLR		1.32' free product
1301		4	63.5	4.11	.64			measured w/
1309		6	63.8	4.19	.63	CLR		interface probe
1315		8	64.5	4.18	.63			
1322		10	62.7	4.13	.61			
			Sampled @ 1445					
			Well cap loose					

SIGNATURE: R. Dreesen

WATER VOL. IN DRUM: \_\_\_\_\_  
 NEED NEW DRUM?: No









# RECORD OF WATER SAMPLING

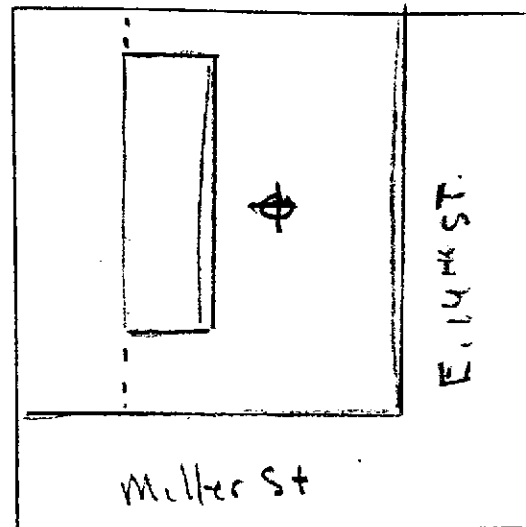
PROJECT NO: 267 DATE: 12/28/99  
 PROJECT NAME: Credit World  
 PROJECT LOCATION: 2345 E 14<sup>th</sup> Oakland  
 SAMPLER: R Dreesen  
 ANALYSES: Tphg / MTBE / BTEX  
 WELL DEPTH (from construction detail): 27  
 WELL DEPTH (measured): 20.83 SOFT BOTTOM?: -  
 DEPTH TO WATER: 12.44 TIME: 1100  
 PRESSURE (circle one?): YES OR NO Not determined  
 IF YES, WAS PRESSURE (circle one): POSITIVE OR NEGATIVE?

WELL NO.: TMW-5

WELL DIAMETER: 2"

TOC ELEV: 26.51

LOCK NO.: \_\_\_\_\_



LOCATION MAP

WATER VOLUME IN WELL: 1.14 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]

CALCULATED PURGE VOL. (GAL): 3.42 (L): \_\_\_\_\_ ACTUAL PURGE VOL. (GAL): 6 (L): \_\_\_\_\_

PURGE METHOD: Hand Bail SAMPLE METHOD: Disposable Bail

## FIELD MEASUREMENTS

Time	Depth to Water (FT)	Vol (L/g)	Temp (Deg. F)	pH	EC	Clarity	Turbidity (NTU)	Remarks
1200		1	69.8	4.22	.84	CLR		(Shem) odor. Smeared production barrel. No free prod. observed.
1207		2	72.1	4.06	.88			
1217		4	71.2	4.10	.85			w.l @ 18.5' bgs well depth measured @ 20.83
1225		6	70.6	4.14	.84			
		Sampled @ 1430						
Well cap / rose (2.5" bullnose PVC endcap)								

SIGNATURE: R Dreesen

WATER VOL. IN DRUM: No  
 NEED NEW DRUM?: No

## 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.

### MEASUREMENTS

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

<u>Parameter</u>	<u>Units of Measurement</u>
pH	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.



## QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

The overall objectives of the field sampling program include generation of reliable data that will support development of a remedial action plan. Sample quality will be checked by the use of proper sampling, handling and testing methods. Additional sample quality control methods may include the use of background samples, equipment rinsate samples and trip and field blanks. Chain-of-custody forms, use of a qualified laboratory, acceptable detection limits and proper sample preservation and holding times also provide assurance of accurate analytical data.

TPE will follow a quality assurance and quality control (QA/QC) program in the field to ensure that all samples collected and field measurements taken are representative of actual field and environmental conditions and that data obtained are accurate and reproducible. These activities and laboratory QA/QC procedures are described below.

Field Samples: Additional samples may be taken in the field to evaluate both sampling and analytical methods. Three basic categories of QA/QC samples that may be collected are trip blanks, field blanks and duplicate samples.

Trip blanks are a check for cross-contamination during sample collection, shipment, and laboratory analysis. They are water samples that remain with the collected samples during transportation and are analyzed along with the field samples to check for residual contamination. Analytically confirmed organic-free water will be used for organic parameters and deionized water for metal parameters. Blanks will be prepared by the laboratory supplying the sample containers. The blanks will be numbered, packaged and sealed in the same manner as the other samples. One trip blank will be used for each sample set of less than 20 samples. At least 5% blanks will be used for sets greater than 20 samples. The trip blank is not to be opened by either the sample collectors or the handlers.

The field blank is a water sample that is taken into the field and is opened and exposed at the sampling point to detect contamination from air exposure. The water

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



# PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

January 03, 2000

PEL # 9912010

TANK PROTECT ENGINEERING

Attn: Jeff

Re: Six water samples for Gasoline/BTEX with MTBE analyses.

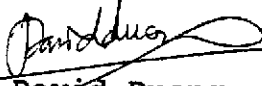
Project name: Credit World Auto Sales - 2345 E. 14th St., Oakland.  
Project number: 267

Date sampled: Dec 28, 1999  
Date extracted: Dec 29-30, 1999

Date submitted: Dec 29, 1999  
Date analyzed: Dec 29-30, 1999

## RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
MW-1	27000	N.D.	48	36	46	83
MW-2	75000	N.D.	130	98	130	230
MW-3	4300	N.D.	7.7	5.2	7.2	13
MW-4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-5	25000	N.D.	44	32	41	75
MW-6T	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	82.2%	---	86.9%	92.4%	90.8%	98.7%
Detection limit	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030/ 8015	602	602	602	602	602

  
David Duong  
Laboratory Director



TANK PROTECT ENGINEERING  
of Northern California, Inc.  
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(510) 429-8088 ■ (800) 523-8088 ■ Fax (510) 429-8089

LAB: PRIORITY <sup>Environmental</sup> ~~Priority~~ ~~LAB~~  
TURNAROUND: NORMAL  
P.O. #: 001245

PAGE 1 OF 1

### CHAIN OF CUSTODY

PROJECT NO.		SITE NAME & ADDRESS				(1) TYPE OF CON- TAINER	ANALYTES REQUESTED							REMARKS
SAMPLER NAME, ADDRESS AND TELEPHONE NUMBER		2821 WHIPPLE ROAD, UNION CITY, CA 94587 (415) 429-8088					TOTAL LIGHT HC	AROMATIC HC	TOTAL HEAVY HC	OIL & GREASE	PC SCAN (624's)	OTHER		
ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION									
267					Credit World	3 VOA	X	X					TP HG, MTBE, BTEX	
MW-1	12/28	1415		✓	Credit World									
MW-2		1420		✓										
MW-3		1508		✓										
MW-4		1425		✓										
MW-5		1430		✓										
MW-6T		1435		✓		2 YRS								
Relinquished by: (Signature)		Date / Time		Received by: (Signature)			Relinquished by: (Signature)		Date / Time		Received by: (Signature)			
<i>Richard D...</i>		12/29/09 10												
Relinquished by: (Signature)		Date / Time		Received by: (Signature)			Relinquished by: (Signature)		Date / Time		Received by: (Signature)			
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature)			Date / Time		Remarks					
				<i>[Signature]</i>			12/29/09 14:40							

DATE: \_\_\_\_\_