

C A M B R I A

February 3, 2004

RO 327

Mr. Amir Gholami  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway, Suit 250  
Alameda, CA 94502-6577

Re: **Groundwater Monitoring Report - Fourth Quarter 2003**  
Credit World Auto Sales  
2345 International Boulevard (Formerly E. 14<sup>th</sup> Street)  
Oakland, California 94601  
Case No. 2116  
Cambria Project No. 129-0741

Alameda County  
FEB 05 2004  
Environmental Health



Dear Mr. Gholami:

On behalf of Mr. Stanley and Mr. Aaron Wong, Cambria Environmental Technology, Inc. (Cambria) has prepared this groundwater monitoring report for the above-referenced site. Presented in the report are this fourth quarter 2003 activities and the anticipated first quarter 2004 activities.

If you have any questions or comments regarding this report, please call me at (510) 420-3307.

Sincerely,  
**Cambria Environmental Technology, Inc.**

Mary C. Holland-Ford, RG  
Project Geologist

Attachments: Groundwater Monitoring Report - Fourth Quarter 2003

cc: Mr. Stanley and Mr. Aaron Wong, 2200 E. 12<sup>th</sup> Street, Oakland, California 94606

**Cambria  
Environmental  
Technology, Inc.**

5900 Hollis Street  
Suite A  
Emeryville, CA 94608  
Tel (510) 420-0700  
Fax (510) 420-9170

# CAMBRIA

## GROUNDWATER MONITORING REPORT - FOURTH QUARTER 2003

**Credit World Auto Sales  
2345 International Boulevard  
(Formerly E. 14<sup>th</sup> Street)  
Oakland, California 94601  
Case No. 2116  
Cambria Project No. 513-1000**

Alameda County  
FEB 05 2004  
Environmental Health



**February 3, 2004**

*Prepared for:*

Mr. Stanley and Mr. Aaron Wong  
2200 E. 12<sup>th</sup> Street  
Oakland, California 94606

*Prepared by:*


Cambria Environmental Technology, Inc.  
5900 Hollis Street, Suite A  
Emeryville, California 94608

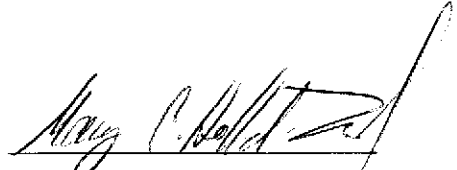
*Written by:*



**Cambria  
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for:  
**Sanjiv Gill  
Staff Scientist**

  
**Mary Holland-Ford, RG  
Project Geologist**

# C A M B R I A

## GROUNDWATER MONITORING REPORT - FOURTH QUARTER 2003

World Credit Auto Sales  
2345 International Boulevard  
(Formerly E. 14<sup>th</sup> Street)  
Oakland, California 94601  
Case No. 2116  
Cambria Project No. 513-1000

February 3, 2004

Alameda County  
FEB 05 2004  
Environmental Health



### INTRODUCTION

On behalf of Mr. Stanley and Mr. Aaron Wong, Cambria Environmental Technology, Inc. (Cambria) has prepared this *Groundwater Monitoring Report - Fourth Quarter 2003* for the above-referenced site. Presented in the report is the fourth quarter 2003 activities and results, and the anticipated first quarter 2003 activities.

### FOURTH QUARTER 2003 ACTIVITIES

#### Monitoring Activities

**Field Activities:** On December 4, 2003, Cambria conducted quarterly monitoring activities. Cambria gauged water levels and measured separate-phase hydrocarbon (SPH) levels in monitoring wells MW-1 through MW-3, TMW-4, TMW-5, and MW-6. Due to the presence of SPH, no groundwater samples were collected for analysis. Groundwater monitoring field data sheets are presented in Appendix A. See Appendix B for Geotracker electronic delivery confirmation.

#### Monitoring Results

**Groundwater Flow Direction:** Based on depth-to-water measurements collected on December 4, 2003, groundwater flow beneath the site is primarily to the north and south. Groundwater flow has been in a radial pattern or toward the northwest in previous quarters. Depth to water and groundwater elevation data are presented in Figure 1 and Table 1.

**SPH Distribution:** During December 4, 2003 field activities, SPH was observed in all site wells (MW-1 through MW-3, TMW-4, TMW-5, and MW-6).

### **Corrective Action Activities**

*SPH Removal:* A schedule for SPH removal by hand bailing was proposed in Cambria's *Site Summary, Conduit Study and Monitoring Report* (Summary Report) dated April 30, 2003. Upon receiving verbal approval from Mr. Gholami on July 11, 2003, monthly SPH removal by hand bailing was initiated. On October 10 and 30, November 25, December 4, 11, and 23, 2003, Cambria conducted SPH removal by hand bailing. During the fourth quarter field activities, Cambria removed approximately 5.15 gallons of SPH (Table 2). Approximately 25.88 gallons of SPH have been removed from the wells since SPH removal activities were initiated in 1992.



### **ANTICIPATED FOURTH QUARTER 2003 ACTIVITIES**

#### **Monitoring Activities**

Cambria will gauge the site wells, inspect wells for SPH, and collect groundwater samples from all wells not containing SPH. Groundwater samples will be analyzed for total petroleum hydrocarbons as gasoline by modified EPA Method 8015C, and benzene, toluene, ethylbenzene, xylenes and methyl tert butyl ether (MTBE) by EPA Method 8021B, with confirmation analysis for any MTBE concentrations by EPA Method 8260. Cambria will summarize groundwater monitoring activities and results in the *Groundwater Monitoring Report – First Quarter 2004*.

#### **Corrective Action Activities**

Cambria will continue to perform SPH hand bailing during field events as described in Cambria's Summary Report dated April 30, 2003. The frequency of SPH removal will continue to be evaluated and modified based on the SPH recovery rates. The SPH thickness gauged and amount removed will be tabulated and incorporated in the quarterly groundwater monitoring reports.

Cambria is awaiting agency approval to begin additional site assessment activities to further define the extent of hydrocarbons, feasibility testing activities to assist in the selection of an appropriate remedial technology, and additional interim remedial activities. These activities were proposed in Cambria's *Summary Report* dated April 30, 2003.

# C A M B R I A

## ATTACHMENTS

Figure 1 – Groundwater Elevation Contour and Hydrocarbon Concentration Map

Table 1 – Groundwater Analytical Data

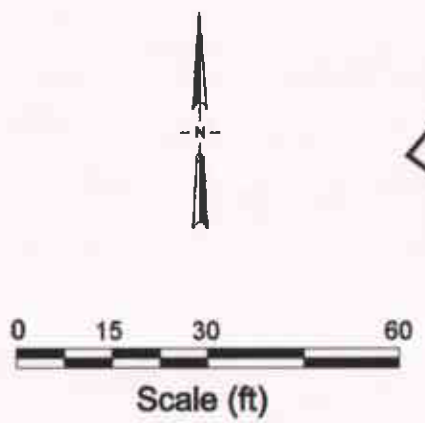
Table 2 – Separate Phase Hydrocarbon Removal

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Geotracker Electronic Delivery Confirmation



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EXPLANATION	
MW-1	Monitoring well location
SB-1	Soil boring location (drilling date)
←	Groundwater flow direction
11.00	Groundwater elevation contours, in feet
Well ID	Well designation
Elev.	Groundwater elevation (msl)
SPH	Separate phase hydrocarbon present in well
○	Approximate limits of excavation
*	Anomalous data, not used for contouring

FIGURE  
**1**

# CAMBRIA

**Table 1. Groundwater Analytical Data - Credit World Auto Sales, 2345 International Boulevard, Oakland, California**

Well ID TOC	Date Sampled	Depth to GW (ft)	SPH Thickness (ft)	GW Elevation (ft)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-1	12/30/1997	10.96	0.17	16.51	61,000	4,300	1,800	1,600	6,900	1,400
100.000 <sup>a</sup>	3/24/1998	9.33	0.00	18.00	24,000	1,000	1,000	1,300	4,300	2,000
27.33 <sup>b</sup>	6/29/1998	12.20	0.00	15.13	130,000	3,800	370	1,200	4,200	3,300
	10/2/1998	13.46	0.00	13.87	22,000	66	21	26	140	<0.50
	12/10/1998	10.49	0.00	16.84	32,000	4,600	970	1,700	4,900	<250
	3/26/1999	9.44	0.00	17.89	230,000	370	290	280	720	<0.50
	6/11/1999	12.56	0.01	14.78	180,000	210	170	220	400	<0.50
	9/15/1999	14.85	1.00	13.28	21,000	3,800	280	590	2,200	<250
	12/28/1999	14.50	1.32	13.89	27,000	48	36	46	83	<0.5
	6/13/2001	15.83	4.36	12.03	--	--	--	--	--	--
	12/27/2002	8.31	0.16	16.19	--	--	--	--	--	--
	3/23/2003	10.65	0.05	16.72	--	--	--	--	--	--
	5/29/2003	12.11	0.28	15.44	--	--	--	--	--	--
	9/26/2003	12.84	0.29	14.72	--	--	--	--	--	--
	<b>12/4/2003</b>	<b>12.50</b>	<b>0.10</b>	<b>14.91</b>	--	--	--	--	--	--
MW-2	8/23/1991	13.77	0.00	84.82	10,000	<5	<5	<5	<5	--
98.585 <sup>a</sup>	4/16/1992	15.38	2.81	12.79	--	--	--	--	--	--
25.92 <sup>b</sup>	6/11/1993	13.19	0.00	12.74	--	--	--	--	--	--
	8/17/1993	14.04	0.01	11.89	49,000	94	240	250	980	--
	3/28/1994	13.61	0.54	12.74	14,000	4,200	<250	910	1,400	--
	6/27/1994	14.24	0.80	12.32	24,000	4,400	72	1,100	1,700	--
	9/16/1994	17.82	4.46	11.67	40,000	2,300	250	2,000	4,100	--
	3/31/1995	16.72	7.44	15.15	28,000	4,000	<120	1,100	1,400	--
	6/28/1995	13.50	0.73	13.00	40,000	2,700	130	1,700	2,900	--
	9/28/1995	14.63	0.54	11.72	7,500	420	14	250	190	<62
	12/26/1995	12.58	0.90	14.06	22,000	1,300	88	950	1,800	<250
	3/22/1996	11.46	0.15	14.58	9,800	2,200	<120	400	<380	<1,200
	6/20/1996	13.08	0.37	13.14	35,000	770	<0.50	240	<0.50	550
	9/30/1996	16.67	3.75	12.25	58,000	1,600	230	2,200	4,000	<5.0

# CAMBRIA

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Well ID TOC	Date Sampled	Depth to GW (ft)	SPH Thickness (ft)	GW Elevation (ft)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-2	12/27/1996	15.74	7.57	16.24	29,000	2,100	<0.50	1,200	1,800	<5.0
<i>(cont'd)</i>	3/7/1997	12.55	0.00	13.37	13,000	1,300	37	290	180	<5.0
	6/28/1997	11.98	0.04	13.97	12,000	840	<0.50	640	360	<5.0
	9/18/1997	13.44	0.00	12.48	12,000	680	<0.50	320	84	<5.0
	12/30/1997	11.31	0.00	14.61	13,000	1,100	40	350	220	<5.0
	3/25/1998	10.02	0.00	15.90	8,100	1,300	51	410	230	670
	6/29/1998	11.96	0.00	13.96	12,000	880	13	180	72	430
	10/2/1998	13.74	0.00	12.18	47,000	140	100	110	200	<0.50
	12/10/1998	12.91	2.10	14.69	26,000	1,000	210	1,500	1,900	<1,000
	3/26/1999	9.06	0.20	17.02	110,000	190	150	120	380	<0.50
	6/11/1999	12.18	0.00	13.74	190,000	310	250	320	540	<0.50
	9/15/1999	15.59	3.00	12.73	25,000	720	<100	1,300	1,600	<1,000
	12/28/1999	16.81	4.50	12.71	75,000	130	98	130	230	<0.50
	6/13/2001	14.84	3.15	10.84	--	--	--	--	--	--
	6/20/2002	14.80	0.70	8.92	53,000	2,200	140	3,300	3,000	<1,000
	10/21/2002	16.98	0.24	6.37	--	--	--	--	--	--
	12/27/2002	13.58	0.43	9.92	--	--	--	--	--	--
	3/23/2003	15.49	0.29	10.66	--	--	--	--	--	--
	5/29/2003	16.08	0.44	10.19	--	--	--	--	--	--
	9/26/2003	17.14	0.87	9.48	--	--	--	--	--	--
	<b>12/4/2003</b>	<b>16.75</b>	<b>1.01</b>	<b>9.98</b>	--	--	--	--	--	--
MW-3	8/23/1991	15.07	0.00	84.18	<5,000	<5	<5	<5	<5	--
99.25 <sup>a</sup>	4/16/1992	14.14	0.16	13.56	--	--	--	--	--	--
27.57 <sup>b</sup>	6/11/1993	14.28	0.00	13.30	--	--	--	--	--	--
	8/17/1993	15.77	0.00	11.80	9,600	4.1	17	28	54	--
	3/28/1994	14.35	0.00	13.22	8,400	2,400	56	67	200	--
	6/27/1994	14.77	0.00	12.80	9,900	3,300	<22	<25	73	--
	9/16/1994	15.42	0.05	12.19	16,000	2,300	80	620	240	--
	3/31/1995	12.98	0.46	14.96	16,000	2,800	70	<25	920	--
	6/28/1995	14.20	0.05	13.41	11,000	2,300	32	81	240	--



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MW-3	9/28/1995	15.17	0.00	12.40	6,300	1,900	<42	200	<120	<420
(cont'd)	12/26/1995	13.33	0.06	14.29	25,000	3,800	97	94	1,600	<250
	3/22/1995	12.81	0.04	14.79	16,000	3,100	75	69	350	250
	6/20/1996	13.95	0.07	13.68	8,500	1,400	28	140	15	220
	9/24/1996	14.86	0.04	12.74	12,000	2,400	87	340	110	<5.0
	12/27/1996	11.04	0.06	16.58	5,800	1,700	28	<0.50	42	240
	3/10/1997	13.80	0.00	13.77	9,000	1,700	<0.50	110	<0.50	<5.0
	6/28/1997	13.72	0.06	13.90	15,000	2,200	<0.50	160	190	<5.0
	9/18/1997	14.76	0.00	12.81	28,000	3,800	<0.50	100	<0.50	<5.0
	12/30/1997	12.97	0.00	14.60	21,000	2,200	<0.50	31	<0.50	300
	3/24/1998	11.75	0.00	15.82	2,300	870	7.2	20	<0.50	85
	6/29/1998	13.38	0.00	14.19	6,500	1,300	12	62	14	140
	10/2/1998	14.42	0.00	13.15	11,000	31	27	35	69	<0.50
	12/10/1998	12.55	0.00	15.02	<2,500	2,800	68	42	55	<250
	3/26/1999	10.54	0.00	17.03	10,000	21	14	10	41	<0.50
	6/15/1999	13.91	0.00	13.66	87,000	90	71	92	180	<0.50
	9/15/1999	14.70	0.00	12.87	8,700	2,100	71	110	66	<100
	12/28/1999	15.16	0.25	12.61	4,300	7.7	5.2	7.2	13	<0.50
	6/13/2001	14.70	0.40	13.19	8,400	1,300	25	64	32	<20
	6/20/2002	14.68	0.02	12.91	7,800	1,100	23	66	15	<50
	12/27/2002	11.37	0.17	16.34	--	--	--	--	--	--
	3/23/2003	--	--	--	--	--	--	--	--	--
	5/29/2003	13.99	0.08	13.64	--	--	--	--	--	--
	9/26/2003	14.51	0.05	13.10	--	--	--	--	--	--
	<b>12/4/2003</b>	<b>14.28</b>	<b>0.10</b>	<b>13.37</b>	--	--	--	--	--	--
TMW-4	8/17/1993	13.26	0.00	13.24	150	<0.50	0.8	1.4	3.7	--
26.50 <sup>b</sup>	3/28/1994	12.40	0.00	14.10	<50	<0.50	<0.50	<0.50	<1.5	--
	6/27/1994	12.84	0.00	13.66	<50	<0.50	<0.50	<0.50	<1.5	--
	9/16/1994	13.58	0.00	12.92	<50	<0.50	<0.50	<0.50	<1.5	--
	3/31/1995	10.23	0.00	16.27	<50	<0.50	<0.50	<0.50	<1.5	--

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TMW-4	6/28/1995	12.21	0.00	14.29	<50	<0.50	<0.50	<0.50	<1.5	--
<i>(cont'd)</i>	9/28/1995	13.38	0.00	13.12	<50	<0.50	<0.50	<0.50	<1.5	<5.0
	12/26/1995	11.32	0.00	15.18	<50	<0.50	<0.50	<0.50	<1.5	<5.0
	3/22/1996	10.54	0.00	15.96	<50	<0.50	<0.50	<0.50	<1.5	<5.0
	6/20/1996	12.14	0.00	14.36	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	9/24/1996	13.01	0.00	13.49	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	12/27/1996	9.51	0.00	16.99	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	3/10/1997	11.92	0.00	14.58	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	6/27/1997	10.70	0.00	15.80	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	9/18/1997	12.94	0.00	13.56	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	12/30/1997	10.92	0.00	15.58	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	3/25/1998	9.60	0.00	16.90	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	6/29/1998	11.32	0.00	15.18	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	10/2/1998	12.56	0.00	13.94	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/10/1998	10.44	0.00	16.06	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	3/26/1999	9.38	0.00	17.12	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	6/15/1999	11.58	0.00	14.92	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/15/1999	12.89	0.00	13.61	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	12/28/1999	12.92	0.00	13.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	10/21/2002	12.70	0.00	13.80	--	--	--	--	--	--
	12/27/2002	9.07	0.12	17.53	--	--	--	--	--	--
	3/23/2003	10.73	0.03	15.79	--	--	--	--	--	--
	5/29/2003	12.50	0.02	14.02	--	--	--	--	--	--
	9/26/2003	13.27	0.06	13.28	--	--	--	--	--	--
	<b>12/4/2003</b>	<b>13.07</b>	<b>0.10</b>	<b>13.51</b>	--	--	--	--	--	--

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Well ID TOC	Date Sampled	Depth to GW (ft)	SPH Thickness (ft)	GW Elevation (ft)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
TMW-5	8/17/1993	12.98	0.03	13.55	120,000	640	730	790	3,600	--
26.51 <sup>b</sup>	3/28/1994	11.39	0.00	15.12	70,000	23,000	1,500	4,100	15,000	--
	6/28/1994	12.24	0.00	14.27	56,000	26,000	940	5,500	26,000	--
	9/16/1994	13.02	0.05	13.53	96,000	17,000	720	3,500	12,000	--
	3/31/1995	7.38	0.00	19.13	64,000	13,000	470	3,500	6,100	--
	6/28/1995	11.31	0.06	15.25	65,000	9,000	240	2,600	5,300	--
	9/28/1995	14.42	0.00	12.09	79,000	17,000	1,800	2,700	7,000	<1,200
	12/26/1995	10.16	0.05	16.39	110,000	11,000	800	2,300	4,500	<1,200
	3/22/1996	7.59	0.05	18.96	--	--	--	--	--	--
	6/26/1996 <sup>d</sup>	7.12	0.00	--	30,000	4,000	180	1,500	2,500	830
	9/30/1996	7.42	0.00	--	6,900	1,600	79	130	370	<5.0
	12/27/1996	6.38	0.00	--	78,000	12,000	1,900	2,900	9,700	<5.0
	3/10/1997	11.12	0.00	--	84,000	9,900	1,100	2,600	8,800	<5.0
	8/17/1997	12.98	0.03	--	--	--	--	--	--	--
	9/18/1997	12.00	0.00	--	65,000	8,000	<0.5	2,000	4,700	<5.0
	12/30/1997	8.97	0.00	--	79,000	6,400	340	2,300	5,500	<5.0
	3/25/1998	7.32	0.00	--	20,000	6,000	260	2,700	5,800	2,400
	6/29/1998	11.50	0.00	--	--	--	--	--	--	--
	10/8/1998	12.56	0.00	--	46,000	120	98	120	240	<0.50
	12/8/1998	10.14	0.00	--	46,000	5,900	320	2,200	5,400	<1,200
	3/26/1999	7.08	0.00	--	35,000	69	61	37	120	<0.50
	6/11/1999	11.40	0.00	--	26,000	29	32	43	72	<0.50
	9/15/1999	12.52	0.00	--	37,000	7,300	400	2,400	6,000	<1,000
	12/28/1999	12.44	0.00	--	25,000	44	32	41	75	<0.50
	5/23/2001	11.31	0.00	12.54	--	--	--	--	--	--

# CAMBRIA

**Table 1. Groundwater Analytical Data - Credit World Auto Sales, 2345 International Boulevard, Oakland, California**

Well ID	Date	Depth to	SPH	GW						
TOC	Sampled	GW	Thickness	Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
		(ft)	(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TMW-5	6/20/2002	11.29	0.05	12.60	51,000	5,100	290	2,300	5,800	<250
(cont'd)	10/21/2002	13.60	0.10	10.33	--	--	--	--	--	--
	12/27/2002	6.60	0.07	17.31	--	--	--	--	--	--
	3/23/2003	9.79	0.04	16.75	--	--	--	--	--	--
	5/29/2003	11.29	0.04	15.25	--	--	--	--	--	--
	9/26/2003	12.47	0.07	14.10	--	--	--	--	--	--
	<b>12/4/2003</b>	<b>12.35</b>	<b>0.10</b>	<b>14.24</b>	--	--	--	--	--	--
MW-6	5/23/2001	12.47	0.00	11.34	--	--	--	--	--	--
23.81 <sup>c</sup>	6/13/2001	12.47	0.00	11.34	7,600	1,400	42	19	14	<10
	6/20/2002	12.45	0.00	11.36	79	5.7	<0.5	<0.5	<0.5	<5.0
	12/27/2002	7.24	0.04	16.60	--	--	--	--	--	--
	3/23/2003	--	--	--	--	--	--	--	--	--
	5/29/2003	11.95	0.02	11.88	--	--	--	--	--	--
	9/26/2003	13.11	0.03	10.72	--	--	--	--	--	--
	<b>12/4/2003</b>	<b>13.14</b>	<b>0.10</b>	<b>10.75</b>	--	--	--	--	--	--

**Abbreviations and Methods:**

TOC = elevation measured in feet below top of casing

Depth to GW = Depth to groundwater relative to top of casing

(ft) = measured in feet

SPH = Separate phase hydrocarbons

GW Elevation = Groundwater elevation in relation to mean sea level; calculated according to the relationship  $GW\ elevation = TOC - DTW + (0.8)(SPH\ thickness)$

(µg/L) = micrograms per Liter

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

Benzene, Toluene, Ethylbenzene, Xylenes by EPA Method 8020, and by 8260 if in parenthesis

MTBE = methyl tertiary butyl ether by EPA Method 8020

VOCs = volatile organic compounds by EPA Method 8260

a = Relative to site datum established by Earth Systems Engineering surveyed August 1981

b = Top of casing elevation surveyed 8/10/93 by professional engineer (unknown datum)

c = Top of casing elevation surveyed 6/13/01 to City of Oakland datum by Renner Survey Company of Burlingame, CA. for Sequoia Environmental.

# CAMBRIA

**Table 2. Separate Phase Hydrocarbon Removal - Credit World Auto Sales, 2345 International Blvd, Oakland, California**

Sample ID/ Well ID	Date Sampled	Depth to SPH (feet bgs)	Depth to GW (feet bgs)	SPH Thickness (feet)	Hydrocarbons Removed (liters)	Hydrocarbons Removed (gallons)	Cumulative Hydrocarbons Removed (gallons)
MW-1	12/30/1997	10.79	10.96	0.17	0.10	0.03	0.03
	6/11/1999	12.55	12.56	0.01	0.01	0.00	0.03
	9/15/1999	13.85	14.85	1.00	0.60	0.16	0.19
	12/28/1999	8.15	8.31	0.16	0.10	0.03	0.21
	6/13/2001	8.15	8.31	0.16	0.10	0.03	0.24
	12/27/2003	8.15	8.31	0.16	3.00	0.79	1.03
	3/23/2003	10.60	10.65	0.05	1.26	0.33	1.36
	4/4/2003	10.19	10.23	0.04	0.94	0.25	1.61
	5/1/2003	9.80	9.85	0.05	0.49	0.13	1.74
	5/29/2003	11.83	12.11	0.28	1.00	0.26	2.00
	7/25/2003	11.99	12.24	0.25	0.50	0.13	2.13
	8/11/2003	12.07	12.37	0.30	0.50	0.13	2.27
	8/29/2003	12.07	12.40	0.33	0.50	0.13	2.40
	9/12/2003	12.59	12.90	0.31	0.48	0.13	2.53
	9/26/2003	12.55	12.84	0.29	0.50	0.13	2.66
	<b>10/10/2003</b>	<b>12.61</b>	<b>12.72</b>	<b>0.11</b>	<b>0.11</b>	<b>0.03</b>	<b>2.69</b>
	<b>10/30/2003</b>	<b>12.68</b>	<b>12.75</b>	<b>0.07</b>	<b>0.08</b>	<b>0.02</b>	<b>2.71</b>
	<b>11/25/2003</b>	<b>12.59</b>	<b>12.69</b>	<b>0.10</b>	<b>0.10</b>	<b>0.03</b>	<b>2.73</b>
	<b>12/4/2003</b>	<b>12.40</b>	<b>12.50</b>	<b>0.10</b>	<b>0.10</b>	<b>0.03</b>	<b>2.76</b>
<b>12/23/2003</b>	<b>11.97</b>	<b>12.08</b>	<b>0.11</b>	<b>0.10</b>	<b>0.03</b>	<b>2.79</b>	
MW-2	6/28/1995	12.77	13.50	0.73	0.44	0.12	2.12
	9/28/1995	14.09	14.63	0.54	0.32	0.09	2.20
	12/26/1995	11.68	12.58	0.90	0.54	0.14	2.35
	3/22/1996	11.31	11.46	0.15	0.09	0.02	2.37
	6/20/1996	12.71	13.08	0.37	0.22	0.06	2.43
	9/30/1996	12.92	16.67	3.75	2.25	0.59	3.02
	12/27/1996	8.17	15.74	7.57	4.54	1.20	4.22
	6/28/1997	11.94	11.98	0.04	0.02	0.01	4.23
	9/18/1997	13.44	13.44	0.00	0.00	0.00	4.23
	12/10/1998	10.81	12.91	2.10	1.26	0.33	4.56
	3/26/1999	8.86	9.06	0.20	0.12	0.03	4.59
	9/15/1999	12.59	15.59	3.00	1.80	0.48	5.07
	12/28/1999	12.31	16.81	4.50	2.70	0.71	5.78
	6/13/2001	11.69	14.84	3.15	1.89	0.50	6.28
	6/20/2002	14.10	14.80	0.70	0.42	0.11	6.39
	10/21/2002	16.74	16.98	0.24	0.14	0.04	6.43
	12/27/2002	13.15	13.58	0.43	3.00	0.79	7.22
	3/23/2003	15.20	15.49	0.29	5.68	1.50	8.72
	4/4/2003	14.72	14.80	0.08	3.78	1.00	9.72
	5/1/2003	13.59	13.63	0.04	0.49	0.13	9.85
	5/29/2003	15.64	16.08	0.44	1.00	0.26	10.11
	7/25/2003	15.81	16.31	0.50	0.50	0.13	10.24
	8/11/2003	15.99	16.44	0.45	0.50	0.13	10.38
	8/29/2003	15.92	16.75	0.83	0.50	0.13	10.51
	9/12/2003	16.29	17.10	0.81	0.95	0.25	10.76
	9/26/2003	16.27	17.14	0.87	1.90	0.50	11.26
	<b>10/10/2003</b>	<b>16.35</b>	<b>17.10</b>	<b>0.75</b>	<b>1.89</b>	<b>0.50</b>	<b>11.76</b>
<b>10/30/2003</b>	<b>16.41</b>	<b>17.03</b>	<b>0.62</b>	<b>0.95</b>	<b>0.25</b>	<b>12.01</b>	
<b>11/25/2003</b>	<b>16.08</b>	<b>16.98</b>	<b>0.90</b>	<b>3.79</b>	<b>1.00</b>	<b>13.01</b>	
<b>12/4/2003</b>	<b>15.74</b>	<b>16.75</b>	<b>1.01</b>	<b>3.79</b>	<b>1.00</b>	<b>14.01</b>	
<b>12/11/2003</b>	<b>15.81</b>	<b>16.90</b>	<b>1.09</b>	<b>3.79</b>	<b>1.00</b>	<b>15.01</b>	
<b>12/23/2003</b>	<b>15.60</b>	<b>16.55</b>	<b>0.95</b>	<b>3.79</b>	<b>1.00</b>	<b>16.01</b>	

# CAMBRIA

Table 2. Separate Phase Hydrocarbon Removal - Credit World Auto Sales, 2345 International Blvd, Oakland, California

Sample ID/ Well ID	Date Sampled	Depth to SPH (feet bgs)	Depth to GW (feet bgs)	SPH Thickness (feet)	Hydrocarbons Removed (liters)	Hydrocarbons Removed (gallons)	Cumulative Hydrocarbons Removed (gallons)
MW-3	4/16/1992	13.98	14.14	0.16	0.10	0.03	0.03
	9/16/1994	15.37	15.42	0.05	0.03	0.01	0.03
	3/31/1995	12.52	12.98	0.46	0.28	0.07	0.11
	6/28/1995	14.15	14.20	0.05	0.03	0.01	0.11
	12/26/1995	13.27	13.33	0.06	0.04	0.01	0.12
	3/22/1995	12.77	12.81	0.04	0.02	0.01	0.13
	6/20/1996	13.88	13.95	0.07	0.04	0.01	0.14
	9/24/1996	14.82	14.86	0.04	0.02	0.01	0.15
	12/27/1996	10.98	11.04	0.06	0.04	0.01	0.16
	6/28/1997	13.66	13.72	0.06	0.04	0.01	0.17
	12/28/1999	14.91	15.16	0.25	0.15	0.04	0.21
	6/13/2001	14.30	14.70	0.40	0.24	0.06	0.27
	6/20/2002	14.66	14.68	0.02	0.01	0.00	0.27
	12/27/2002	11.20	11.37	0.17	3.00	0.79	1.07
	5/29/2003	13.91	13.99	0.08	0.01	0.03	1.09
	7/25/2003	14.02	14.12	0.10	0.20	0.05	1.14
	8/11/2003	14.25	14.35	0.10	0.15	0.04	1.18
	8/29/2003	14.18	14.33	0.15	0.15	0.04	1.22
	9/12/2003	14.41	14.55	0.14	0.10	0.03	1.25
	9/26/2003	14.46	14.51	0.05	0.15	0.04	1.29
10/10/2003	<b>14.50</b>	<b>14.58</b>	<b>0.08</b>	<b>0.20</b>	<b>0.05</b>	<b>1.34</b>	
10/30/2003	<b>14.59</b>	<b>14.63</b>	<b>0.04</b>	<b>0.12</b>	<b>0.03</b>	<b>1.37</b>	
11/25/2003	<b>14.30</b>	<b>14.40</b>	<b>0.10</b>	<b>0.11</b>	<b>0.03</b>	<b>1.40</b>	
12/4/2003	<b>14.18</b>	<b>14.28</b>	<b>0.10</b>	<b>0.10</b>	<b>0.03</b>	<b>1.43</b>	
12/23/2003	<b>13.81</b>	<b>13.91</b>	<b>0.10</b>	<b>0.05</b>	<b>0.01</b>	<b>1.44</b>	
TMW-4	12/27/2002	8.95	9.07	0.12	1.50	0.40	0.40
	3/23/2003	10.70	10.73	0.03	0.95	0.25	0.65
	4/4/2003	10.35	10.40	0.05	0.95	0.25	0.90
	5/1/2003	10.07	10.09	0.02	0.49	0.13	1.02
	5/29/2003	12.48	12.50	0.02	0.00	0.00	1.02
	7/25/2003	12.61	12.67	0.06	0.05	0.01	1.03
	8/11/2003	14.49	14.59	0.10	0.10	0.03	1.06
	8/29/2003	12.93	12.95	0.02	0.05	0.01	1.07
	9/12/2003	13.24	13.29	0.05	0.03	0.01	1.08
	9/26/2003	13.21	13.27	0.06	0.04	0.01	1.09
	10/10/2003	<b>13.31</b>	<b>13.40</b>	<b>0.09</b>	<b>0.05</b>	<b>0.01</b>	<b>1.11</b>
	10/30/2003	<b>13.30</b>	<b>13.38</b>	<b>0.08</b>	<b>0.04</b>	<b>0.01</b>	<b>1.12</b>
	11/25/2003	<b>13.09</b>	<b>13.19</b>	<b>0.10</b>	<b>0.02</b>	<b>0.01</b>	<b>1.12</b>
	12/4/2003	<b>12.97</b>	<b>13.07</b>	<b>0.10</b>	<b>0.05</b>	<b>0.01</b>	<b>1.14</b>
12/23/2003	<b>13.59</b>	<b>13.69</b>	<b>0.10</b>	<b>0.05</b>	<b>0.01</b>	<b>1.15</b>	
TMW-5	8/17/1993	12.95	12.98	0.03	0.02	0.00	0.00
	9/16/1994	12.97	13.02	0.05	0.03	0.01	0.01
	6/28/1995	11.25	11.31	0.06	0.04	0.01	0.02
	12/26/1995	10.11	10.16	0.05	0.03	0.01	0.03
	3/22/1996	7.54	7.59	0.05	0.03	0.01	0.04
	8/17/1997	12.95	12.98	0.03	0.02	0.00	0.04
	5/23/2001	--	11.31	0.00	0.00	0.00	0.04
	6/20/2002	11.24	11.29	0.05	0.03	0.01	0.05
	10/21/2002	13.50	13.60	0.10	0.06	0.02	0.07
	12/27/2002	13.50	13.60	0.10	1.50	0.40	0.46
	3/23/2003	9.75	9.79	0.04	0.95	0.25	0.71

# CAMBRIA

**Table 2. Separate Phase Hydrocarbon Removal - Credit World Auto Sales, 2345 International Blvd, Oakland, California**

Sample ID/ Well ID	Date Sampled	Depth to SPH (feet bgs)	Depth to GW (feet bgs)	SPH Thickness (feet)	Hydrocarbons Removed (liters)	Hydrocarbons Removed (gallons)	Cumulative Hydrocarbons Removed (gallons)
MW-5	4/4/2003	9.40	9.45	0.05	0.49	0.13	0.84
(con't)	5/1/2003	8.93	8.95	0.02	0.38	0.10	0.94
	5/29/2003	11.25	11.29	0.04	0.01	0.01	0.95
	7/25/2003	11.33	11.37	0.04	0.02	0.01	0.96
	8/11/2003	11.47	11.49	0.02	0.01	0.003	0.96
	8/29/2003	12.10	12.17	0.07	0.02	0.01	0.96
	9/12/2003	12.45	12.50	0.05	0.03	0.01	0.97
	9/26/2003	12.40	12.47	0.07	0.02	0.01	0.98
	10/10/2003	12.51	12.61	0.10	0.02	0.01	0.98
	10/30/2003	12.65	12.70	0.05	0.01	0.003	0.99
	11/25/2003	12.39	12.49	0.10	0.01	0.003	0.99
	12/4/2003	12.25	12.35	0.10	0.01	0.001	0.99
	12/23/2003	13.78	13.88	0.10	0.01	0.003	0.99
MW-6	12/27/2002	7.20	7.24	0.04	1.50	0.39	0.39
	5/29/2003	11.93	11.95	0.02	0.01	0.01	0.40
	7/25/2003	12.05	12.07	0.02	0.02	0.01	0.41
	8/11/2003	12.18	12.20	0.02	0.01	0.003	0.41
	8/29/2003	12.74	12.77	0.03	0.05	0.01	0.42
	9/12/2003	13.09	13.15	0.06	0.05	0.01	0.44
	9/26/2003	13.08	13.11	0.03	0.05	0.01	0.45
	10/10/2003	13.27	13.43	0.16	0.08	0.02	0.47
	10/30/2003	13.32	13.40	0.08	0.05	0.01	0.49
	11/25/2003	13.09	13.24	0.15	0.04	0.01	0.50
	12/4/2003	13.04	13.14	0.10	0.02	0.01	0.50
	12/23/2003	13.50	13.60	0.10	0.01	0.003	0.50

*Hydrocarbons removed by bailing or purging (gallons) = 20.88*

*Hydrocarbons removed by Tank Protect (see below) (gallons) = 5.0*

*Total estimated hydrocarbons removed (gallons) = 25.88*

Note = approximately 3 to 5 gallons reported removed by Tank Protect between 8/20/97 and 1/14/98 with continuous free product removal system.

bgs = below ground surface

SPH = Separate phase hydrocarbons

SPH removal volumes were provided for 5/23/01, 6/13/01, and 12/27/02 data.

The volume of hydrocarbons removed prior to 12/27/2002 were estimated by multiplying the well casing volume (2" diameter casing = 0.60L/ft) by the SPH thickness (feet)

## **APPENDIX A**

Groundwater Monitoring Field Data Sheets



## Product Bailing Sheet

Well ID	Order	DTP	DTW	DOP	Amount of Product Removed	Casing Dia	Comment
MW-1		12.61	12.72		110ml		
MW-2		16.35	17.10		1/2 gal		
MW-3		14.50	14.58		200ml		
TMW-4		13.31	13.40		50ml		
TMW-5		12.51	12.61		20ml		
MW-6		13.27	13.43		80ml		

Project Name: WongProject Number: 513-1000/016Technician: S. M. J.Date: 10-10-03

Product Bailing Sheet

Well ID	Order	DTP	DTW	DOP	Amount of Product Removed	Casing Dia	Comment
MW-1		12.68	12.75		80 ml		
MW-2		16.41	17.03		4 gal		
MW-3		14.59	14.63		120 ml		
TMW-4		13.30	13.38		40 ml		
TMW-5		12.65	12.70		10 ml		
MW-6		13.32	13.40		50 ml		

Project Name: Wong

Project Number: 513-1000/016

Technician: J. Hill

Date: 10/30/03

Product Bailing Sheet

Well ID	Order	DTP	DTW	DOP	Amount of Product Removed	Casing Dia	Comment
MW-1		12.59	12.69	0.10	100ml		
MW-2		16.08	16.98	0.90	1 gallon		
MW-3		14.30	14.40	0.10	110ml		
TMW-4		13.09	13.19	0.10	20ml		
TMW-5		12.39	12.49	0.10	10ml		
MW-6		13.09	13.24	0.15	40ml		

Project Name: Wong

Project Number: 513-1000

Technician: J. Hill

Date: 11-25-03

SPH REMOVAL FIELD SHEET

Well ID	Time	DTP	DTW	Thickness	Volume Removed	Casing Diam.	Comments
MW-1	11:30	12.40	12.50	0.10	100ml		
MW-2	4:10	15.74	16.75	1.01	1gal		
MW-3	12:15	14.18	14.28	0.10	100ml		
TMW-4	12:50	12.97	13.07	0.10	50ml		
TMW-5	2:10	12.25	12.35	0.10	5ml		
MW-6	3:15	13.04	13.14	0.10	20ml		

Project Name: Wong

Project Number: 513-1000

Technician: S. Hill

Date: 12-4-03



SPH REMOVAL FIELD SHEET

Well ID	Time	DTP	DTW	Thickness	Volume Removed	Casing Diam.	Comments
MW-1	9:00	11.97	12.08	0.11	100ml		
MW-2	2:30	15.60	16.55	0.95	1gal		
MW-3	10:10	13.81	13.91	0.10	50m <sup>3</sup>		
TMW-4	11:10	13.59	13.69	0.10	50m <sup>3</sup>		
TMW-5	12:00	13.78	13.88	0.10	10m <sup>3</sup>		
MW-6	1:30	13.50	13.60	0.10	10ml		

Project Name: Wong  
 Technician: S. Hill

Project Number: 513-1000  
 Date: 12-23-03

**APPENDIX B**

Geotracker Electronic Delivery Confirmation

## AB2886 Electronic Delivery

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

### UPLOADING A GEO\_WELL FILE

**Processing is complete. No errors were found!  
Your file has been successfully submitted!**

<b><u>Submittal Title:</u></b>	<b>Wong, Oakland 4Q03 geo_well</b>
<b><u>Submittal Date/Time:</u></b>	<b>1/26/2004 11:41:35 AM</b>
<b><u>Confirmation Number:</u></b>	<b>8468571305</b>

**[Back to Main Menu](#)**

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