CONESTOGA-ROVERS
& ASSOCIATES

19449 Riverside Drive, Suite 230, Sonoma, California 95476
Telephone: 707-935-4850 Facsimile: 707-935-6649
www.CRAworld.com

To Whom it May Concern,

We are pleased to announce that effective April 2, 2007, Cambria Environmental Technology, Inc (Cambria) was acquired by Conestoga-Rovers & Associates (CRA) and will be conducting all future work under this new name. Our project managers, business addresses, and telephone contact numbers will remain the same. Our e-mail addresses change to *****@craworld.com. Please contact me if you would like to discuss this transition and CRA.

Sincerely,

Diane M. Lundquist
Vice President

Denis L. Brown

Shell Oil Products US
HSE – Environmental Services
20945 S. Wilmington Ave.
Carson, CA 90810-1039
Tel (707) 865 0251
Fax (707) 865 2542
Email denis.l.brown@shell.com

Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Shell-branded Service Station
2120 Montana Street
Oakland, California
Incident No. 98995740
ACHCSA Case No. RO-0173

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

Denis L. Brown
Project Manager

CONESTOGA-ROVERS
& ASSOCIATES

19449 Riverside Drive, Suite 230, Sonoma, California 95476
Telephone: 707-935-4850 Facsimile: 707-935-6649
www.CRAworld.com

May 8, 2007

Mr. Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Results of Drawdown Pilot Test**
Shell-branded Service Station
2120 Montana Street
Oakland, California
Incident No. 98995740
ACHCSA Case No. RO-0173

Dear Mr. Wickham:

Conestoga-Rovers & Associates, Inc. (CRA) submits the results of drawdown testing performed at the above-referenced site on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell). CRA acquired Cambria Environmental Technology, Inc. (Cambria) on April 2, 2007. The work described in this report was performed by Cambria and is referenced as such. Cambria notified the Alameda County Health Care Services Agency (ACHCSA) of the performance of this test in the February 6, 2007 report for the site, entitled *Groundwater Monitoring and Remediation Report, Fourth Quarter 2006*. Cambria proposed the drawdown test (referred to as a pump test in the February 6, 2007 report) in order to evaluate potential improvements to the operation of the existing groundwater extraction and treatment system (GWETS) located on the site. Described below are a summary of the site background and the basis for the test, as well as results of the test and recommendations for modifying the GWETS based on test results. The recommendations in this document are essentially those discussed in the March 29, 2007 meeting between ACHCSA, Shell, and Cambria.

SITE LOCATION AND DESCRIPTION

Site Location: This operating Shell-branded service station is located at the Montana Street and Fruitvale Avenue intersection in Oakland, California (Figures 1 and 2). Commercial properties lie to the north and east of the site, and residential properties lie to the west. Montana Street, a freeway on-ramp, and Highway 580 are located south of the site.

Site Lithology and Hydrogeology: The site is underlain by interbedded sandy silt, silty sand, clayey sand, clay, and sand to the total explored depth of 28 feet below grade (fbg). A narrow sand lens has been observed at depths between approximately 10 and 15 fbg in each of the borings advanced at the site. The log for extraction well EW-2 also shows a sand lens deeper, at approximately 25 fbg. These sand

lenses likely serve as the primary transport pathways for petroleum hydrocarbons in groundwater beneath the site.

The site elevation is approximately 150 feet above mean sea level. Historically, groundwater depth has ranged from approximately 10.1 to 14.3 fbg. Groundwater flow direction is predominantly to the south-southwest, but has varied to the northwest. Groundwater elevation contours which depict the groundwater flow direction during the Fourth Quarter 2006 monitoring event are illustrated on Figure 2.

Remediation System Background: The GWETS system commenced operation on April 2, 2003. The initial design did not include an oil-water separator (OWS). Due to the presence of measurable separate-phase hydrocarbons (SPH) in on-site monitoring wells, Cambria subsequently modified the GWETS system to include the OWS. Groundwater can be extracted from three extraction wells on-site, EW-1, EW-2, and TBW-N, but the flow capacity of the OWS is too low to allow pumping at the maximum combined extraction rate of the three extraction wells. Therefore, extraction must be limited so as not to overwhelm the OWS. Despite the low extraction rate, the GWETS system has apparently been successful removing SPH from all wells, and also reducing dissolved petroleum hydrocarbon concentrations in on-site wells. As of December 27, 2006, a total of approximately 742,807 gallons of groundwater had been extracted. A total of approximately 21.8 pounds of TPHg, 0.826 pounds of benzene, and 4.86 pounds of MTBE had been recovered.

As of the Fourth Quarter 2006 monitoring and sampling event (December 18, 2006), no measurable SPH was present in any of the monitoring or extraction wells associated with the site. The efficiency of the GWETS could be improved by eliminating the OWS; however, operation of the OWS will continue to be required if SPH is still present near the site. In July 2004, Cambria measured significant thicknesses of SPH in wells associated with the site. It was at that time that Cambria performed a five day test to evaluate enhanced removal of petroleum hydrocarbons and MTBE from the source area. A vacuum was applied to well MW-1 to enhance the extraction of groundwater. During the test, Cambria measured up to 0.8 foot (9.6 inches) of SPH in off-site monitoring well MW-2. Flow of the SPH into the well was apparently induced by drawdown of groundwater that exposed the permeable lens between 15 and 20 fbg in that well. Cambria's January 18, 2005 *Interim Remediation Report* summarizes the July 2004 test activities.

DRAWDOWN TESTING

Begninning on March 5, 2007, Cambria performed a drawdown test in an effort to observe and recover any SPH that may still have been present near MW-2. The objective of the test was to pump groundwater from on-site in an effort to draw down the water level in off-site well MW-2 to try to expose the sandy unit between 15 and 20 fbg in the well. It is believed that this permeable lens was the pathway

by which product entered MW-2 when the enhanced pumping was performed in July 2004. In order to repeat the conditions present during the July 2004 test, Cambria planned to pump groundwater at a minimum of approximately 4 gallons per minute (gpm) during the test. This was the rate at which groundwater was extracted from MW-1 during the previous test.

The drawdown test was commenced with pumping only from EW-2 (located closer to MW-2 than well EW-1) at 4 gpm. In addition to achieving the minimum desired pumping rate, Cambria intended to limit the drawdown within extraction well EW-2 so as not to expose the deeper permeable lens at a depth of 25 fbg. This was approximately the depth at which the inlet of the pump was set in the well to insure the maximum drawdown would not be exceeded. Depths to groundwater in MW-2, EW-2, and several other monitoring and extraction wells at the site were measured at regular intervals during the test. The groundwater depth was measured at MW-2 to monitor progress toward achieving the test objective. Prior to the test, Cambria planned that once groundwater was drawn down to a minimum of 15 fbg in MW-2, pumping would continue for at least an additional 24 hours to verify whether SPH would enter the well or not. If SPH were not observed in MW-2 after 24 additional hours at the prescribed amount of drawdown, the test would be stopped. If SPH had been observed in MW-2, pumping was to continue so that the SPH could be recovered by bailing.

During the test, extracted groundwater was collected in a 6,500-gallon capacity storage tank that had been placed at the site for temporary storage of water. Once it was verified that no SPH was present on the water stored in the tank, the water was pumped through the existing treatment system and discharged to the sanitary sewer under the terms of the existing wastewater discharge permit for the GWETS.

Pumping from extraction well EW-2 was conducted over the entire course of the test, and from extraction well EW-1 for a shorter period of the test in an effort to draw the water table down to the target level in MW-2. On March 7, 2007 at approximately 4:00 PM, after approximately 50 hours of groundwater extraction, the target drawdown level in MW-2 was achieved. The prescribed drawdown was maintained in MW-2 for an additional 24 hours. Since SPH was not observed in MW-2 by 4:00 PM on March 8, 2007, the test was curtailed and it was determined that no additional mobile SPH exists at or near the site. Pumping and drawdown data collected during the test is presented in Table 1. A copy of the field data forms completed during the test is included as Attachment A.

CONCLUSIONS AND RECOMMENDATIONS

Based on the conclusion from the test that mobile SPH is no longer available to be pumped from the on-site extraction wells, CRA proposes that the OWS be removed from the treatment train of the GWETS. The OWS will be replaced with an approximately 1,000-gallon capacity transfer tank into which extracted groundwater will be pumped. The increased capacity of the proposed transfer tank will allow

hydrocarbons at and near the site. Additionally, the removal of the OWS should improve the reliability of the system since there should be fewer shutdowns of the system due to high liquid levels inside the OWS.

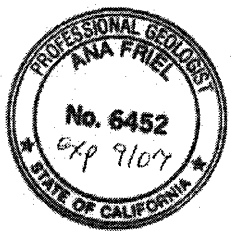
It was theorized earlier that the existing GWETS has been successful in removing hydrocarbon mass and reducing the concentrations of dissolved hydrocarbons at and near the site. The rate at which hydrocarbon mass has been removed by the GWETS has recently approached zero. Should the improved efficiency of the GWETS without the OWS prove to be no more successful at removing hydrocarbon mass, CRA will propose to cease operation of the current system. Additionally, CRA is currently planning to complete performance of soil vapor sampling on properties adjacent to the site and to re-sample the onsite vapor probes. With the additional soil vapor data, CRA may recommend re-evaluating the health risks from soil, groundwater, and soil vapor to potential on-site commercial and off-site residential receptors.

CLOSING

As stated previously, Cambria has been acquired by CRA. CRA will continue to perform work on this project on behalf of Shell and there are no changes to the project team. CRA looks forward to ACHCSA's approval of the plan proposed in this report. If you have any questions regarding the contents of this document, please call Ana Friel of CRA at (707) 268-3812.

Sincerely,
Conestoga-Rovers & Associates, Inc.

William E. Brasher, P.E.
Senior Engineer



Ana Friel, P.G.
Associate Geologist

Figures: 1 - Vicinity Map
2 - Groundwater Contour and Chemical Concentration Map

Tables: 1 – Drawdown Test Data

Attachments: A - Drawdown Test Field Data Forms

cc: Denis Brown, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810

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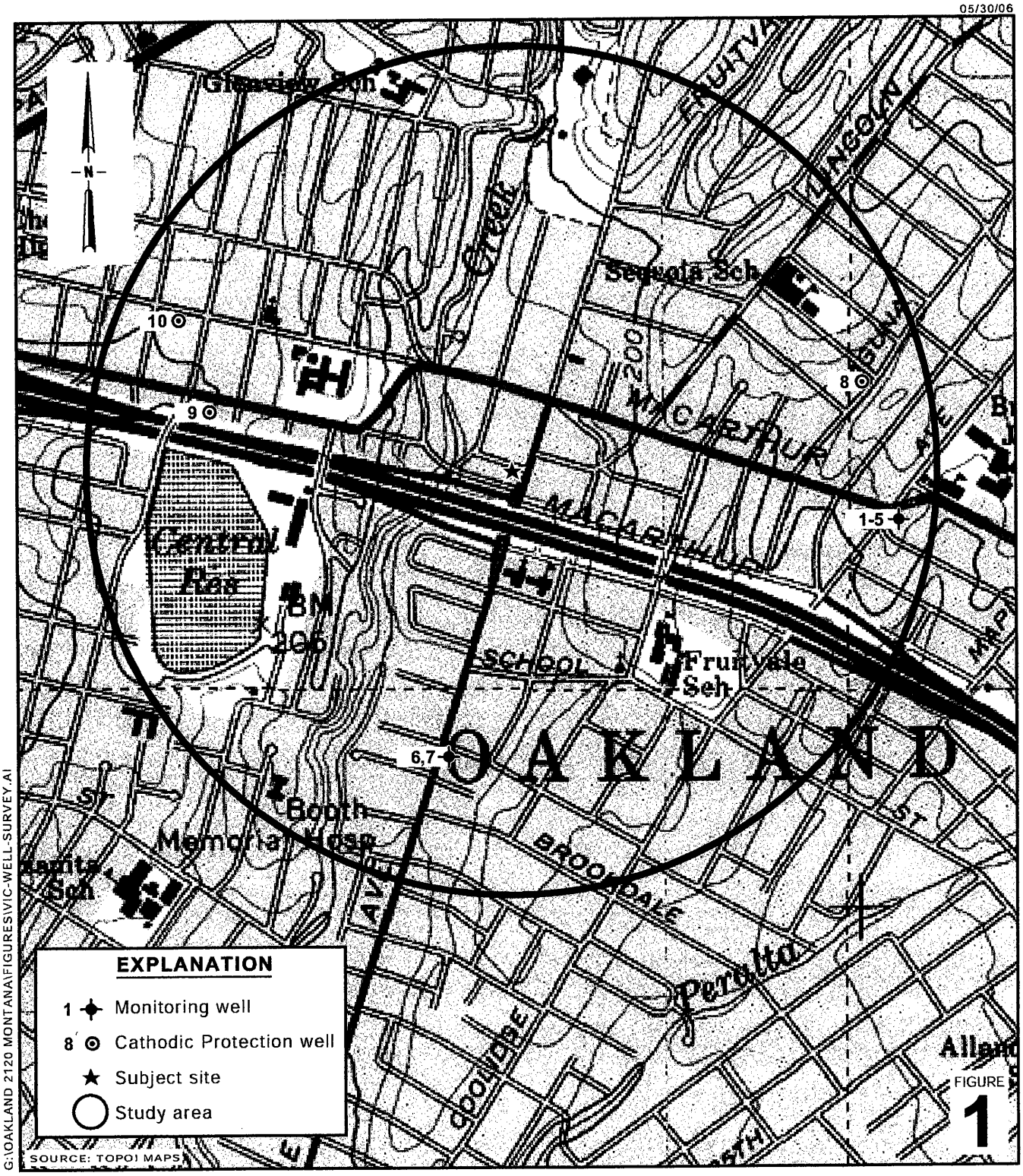
05/30/06



G:\OAKLAND 2120 MONTANA\FIGURES\VIC-WELL-SURVEY.AI

0 1/6 1/3 1/2 1

SCALE : 1" = 1/6 MILE

Shell-branded Service Station
2120 Montana Street
Oakland, California
Incident No.98995740

Vicinity Map

(1/2-Mile Radius)

01/18/07

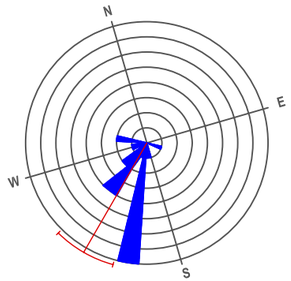
EXPLANATION

- SV-F — Proposed soil vapor probe location
- EW-1 — Extraction well location
- MW-1 — Well used for groundwater extraction
- MW-2 — Monitoring well location
- TBW-N — Tank backfill well location
- SB-1 — Cambria soil boring location (10/99)
- INF — GWE system sampling location
- Remediation piping (R)
- Proposed remediation piping (P-R)
- Discharge line (D)
- Electrical and overhead electric line (E, OE)
- Sanitary sewer (SS)
- Water line (W)
- Telecommunications line (T)
- Product dispenser number
- 0.02 — Groundwater flow direction and gradient
- xx.xx — Groundwater elevation contour, in feet above mean sea level (msl)

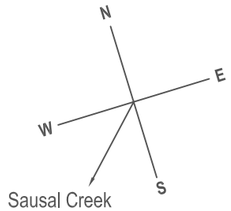
Well
ELEV
Benzene
MTBE

- Well designation
- Groundwater elevation, in feet above msl
- Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260.

ND = Below laboratory detection limit



Groundwater Gradient Direction
(1Q01 through 4Q06)



Sausal Creek
(730 ft. SW)

Location of Sensitive Receptor
Relative to Site

parking lot

Commercial
property

sidewalk

power pole

10"Ø SS

SLOAN STREET

air/water

planter

Building

TBW-N
149.80
0.68
37

Relocated Trash Enclosure

storage

INF

EFF

Remediation Compound

SS

SV-I

SV-H

TBW-W

TBW-E

USTs

MW-1
148.34
120
1,100

SV-G

TBW-S

EW-1
147.63
140
640

gate

SV-F

2102 Montana

2106 Montana

2110 Montana

MW-3
150.11
ND
0.88

Shell Station
2120 Montana St.

canopy

SB-1

kiosk

dispensers

SB-2

SB-3

150.00

149.00

148.00

Sewer
connection

MW-4
147.38
4.3
140

EW-2
147.58
75
130

driveway

sidewalk

MW-5
146.85
5.1
ND

MW-2
146.98
230
94

147.00

power poles

MONTANA STREET

FRUITVALE AVENUE

INTERSTATE 580 ON-RAMP

0 15 30 60
Scale (ft)

K:\OAKLAND 2120 MONTANA\FIGURES\4QM06.DWG

Groundwater Contour and Chemical Concentration Map

December 18, 2006

CONESTOGA-ROVERS & ASSOCIATES

Shell-branded Service Station

2120 Montana Street
Oakland, California

FIGURE
2

Table 1. Drawdown Test Data - Shell Service Station, 2120 Montana Street, Oakland, CA, Incident #98995740

Date & Time m/d/yy hh:mm	Elaped Time (min)	Flow Totalizer Reading	Period Vol Extracted (gal)	Measured Flow Rate (gpm)	<----------Depth to Water from TOC measured in feet ---------->						SPH Present (y/n)
					Well EW-1	Well EW-2	Well MW-1	Well MW-2	Well MW-3	Well MW-4	
3/5/07 11:15	0	109,907	0	0.0	11.20	10.70	10.60	10.85	11.10	12.60	No
3/5/07 13:45	0	109,907	0	4.0	11.20	10.70	10.60	10.85	11.10	12.60	No
3/5/07 14:15	30	110,032	125	4.0	14.48	14.75	11.86	11.02	11.14	12.91	No
3/5/07 14:45	60	110,155	123	4.0	15.28	15.92	12.79	11.22	11.14	13.23	No
3/5/07 15:15	90	110,280	125	4.0	15.82	16.60	13.49	11.33	11.13	13.57	No
3/5/07 15:45	120	110,396	116	4.0	16.28	17.04	14.01	11.46	11.13	13.72	No
3/5/07 16:45	180	110,644	248	4.0	17.01	17.88	14.85	--	11.13	14.16	No
3/5/07 17:45	240	110,889	246	4.0	17.59	18.43	15.43	--	11.13	14.54	No
3/5/07 18:45	300	111,124	235	4.0	--	19.15	--	--	--	--	No
3/5/07 19:45	360	111,361	236	4.0	--	19.32	--	--	--	--	No
3/5/07 20:45	420	111,598	237	4.0	--	19.61	--	--	--	--	No
3/5/07 21:45	480	111,833	235	4.0	--	20.05	--	--	--	--	No
3/5/07 22:45	540	112,067	234	4.0	--	20.05	--	--	--	--	No
3/5/07 23:45	600	112,299	232	3.9	--	20.13	--	--	--	--	No
3/6/07 0:45	660	112,532	233	3.9	--	20.35	--	--	--	--	No
3/6/07 1:45	720	112,761	229	3.8	--	20.40	--	--	--	--	No
3/6/07 2:45	780	112,942	181	3.9	--	20.35	--	--	--	--	No
3/6/07 3:45	840	113,221	279	3.8	--	20.55	--	--	--	--	No
3/6/07 4:45	900	113,453	231	3.9	--	20.65	--	--	--	--	No
3/6/07 5:45	960	113,682	229	3.8	--	20.70	--	--	--	--	No
3/6/07 6:45	1020	113,905	224	3.7	--	21.03	--	--	--	--	No
3/6/07 7:45	1080	114,143	238	4.0	20.01	21.08	17.85	--	11.39	17.18	No
3/6/07 8:50	1145	114,385	242	4.0	*20.01*	*21.08*	*17.85*	--	*11.39*	*17.18*	No
3/6/07 9:45	1200	114,595	210	3.5	20.03	20.75	17.95	12.98	11.43	17.34	No
3/6/07 10:45	1260	114,817	222	3.7	19.93	20.70	17.98	13.05	11.45	17.42	No
3/6/07 11:45	1320	115,035	218	3.6	19.98	21.03	17.95	13.07	11.48	17.46	No
3/6/07 15:50	1565	115,725	690	5.0	19.30	21.50	17.00	12.90	11.52	16.95	No
3/6/07 16:20	1595	115,886	161	5.0	21.50	21.60	17.45	13.15	11.50	17.30	No
3/6/07 16:50	1625	116,032	146	4.8	21.60	21.60	18.00	13.25	11.50	17.50	No
3/6/07 17:30	1665	116,198	166	4.3	21.60	21.90	--	--	--	--	No
3/6/07 18:30	1725	116,445	247	*4.3*	21.60	21.95	--	--	--	--	No

Table 1. Drawdown Test Data - Shell Service Station, 2120 Montana Street, Oakland, CA, Incident #98995740

Date & Time m/d/yy hh:mm	Elaped Time (min)	Flow Totalizer Reading	Period Vol Extracted (gal)	Measured Flow Rate (gpm)	<----------Depth to Water from TOC measured in feet ---------->						SPH Present (y/n)
					Well EW-1	Well EW-2	Well MW-1	Well MW-2	Well MW-3	Well MW-4	
3/6/07 19:30	1785	116,740	295	6.6	21.80	22.00	--	--	--	--	No
3/6/07 20:30	1845	116,951	212	3.5	21.90	22.04	--	--	--	--	No
3/6/07 21:30	1905	117,191	240	3.9	22.01	22.07	--	--	--	--	No
3/6/07 22:30	1965	117,436	245	4.0	22.01	22.05	--	--	--	--	No
3/6/07 23:30	2025	117,681	245	4.0	*22.01*	22.00	--	--	--	--	No
3/7/07 0:30	2085	117,927	246	4.0	21.64	22.00	--	--	--	--	No
3/7/07 1:30	2145	118,168	242	4.0	21.71	22.00	--	--	--	--	No
3/7/07 2:30	2205	118,404	236	3.9	21.71	22.10	--	--	--	--	No
3/7/07 3:30	2265	118,643	239	4.0	22.00	22.10	--	--	--	--	No
3/7/07 4:30	2325	118,884	241	4.0	22.10	22.27	--	--	--	--	No
3/7/07 5:30	2385	119,122	238	4.0	22.11	22.28	--	--	--	--	No
3/7/07 6:30	2445	--	--	--	22.11	22.29	19.23	--	11.65	18.90	No
3/7/07 7:30	2505	--	--	--	22.11	22.28	19.25	--	11.66	18.94	No
3/7/07 8:30	2565	119,827	705	--	22.12	22.30	19.26	14.49	11.66	18.98	No
3/7/07 9:30	2625	120,065	238	4.0	22.14	22.29	19.30	14.60	11.67	19.04	No
3/7/07 10:30	2685	120,300	235	*4.0*	22.33	22.31	19.32	14.60	11.68	19.05	No
3/7/07 11:30	2745	120,527	227	3.7	22.60	22.34	19.34	14.61	11.70	19.06	No
3/7/07 12:30	2805	120,759	232	3.7	--	--	--	--	--	--	No
3/7/07 14:00	2895	121,073	314	3.7	22.14	24.65	19.19	14.61	11.71	18.98	No
3/7/07 15:00	2955	121,348	276	4.6	22.14	24.65	19.55	14.96	11.73	19.10	No
3/7/07 16:00	3015	121,580	232	*4.6*	22.14	24.65	19.60	15.12	11.74	19.11	No
3/7/07 17:00	3075	121,810	231	3.5	22.14	24.65	19.62	--	11.75	19.13	No
3/7/07 18:30	3135	122,149	339	1.2	22.12	24.75	--	--	--	--	No
3/7/07 19:30	3195	122,376	227	3.8	22.12	24.75	--	--	--	--	No
3/7/07 20:30	3255	122,594	219	3.7	22.23	24.70	--	--	--	--	No
3/7/07 21:30	3315	122,813	219	3.6	22.55	24.73	--	--	--	--	No
3/7/07 22:30	3375	123,030	217	3.6	22.70	24.78	--	--	--	--	No
3/7/07 23:30	3435	123,247	217	3.6	22.72	24.83	--	--	--	--	No
3/8/07 0:30	3495	123,456	210	3.4	22.75	24.85	--	--	--	--	No
3/8/07 1:30	3555	123,665	208	4.3	21.77	25.00	--	--	--	--	No
3/8/07 2:30	3615	123,874	210	3.5	22.51	25.00	--	--	--	--	No

Table 1. Drawdown Test Data - Shell Service Station, 2120 Montana Street, Oakland, CA, Incident #98995740

Date & Time m/d/yy hh:mm	Elaped Time (min)	Flow Totalizer Reading	Period Vol Extracted (gal)	Measured Flow Rate (gpm)	<----------Depth to Water from TOC measured in feet ----------> Well EW-1	Well EW-2	Well MW-1	Well MW-2	Well MW-3	Well MW-4	SPH Present (y/n)
3/8/07 3:30	3675	124,079	205	3.7	22.30	24.90	--	--	--	--	No
3/8/07 4:30	3735	124,284	205	*3.7*	*23.30*	--	--	--	--	--	No
3/8/07 5:30	3795	124,584	300	3.3	22.21	24.71	19.00	--	--	--	No
3/8/07 6:30	3885	124,675	91	3.3	22.19	24.30	19.01	--	11.83	19.08	No
3/8/07 7:30	3945	124,874	199	3.3	*22.19*	23.21	19.00	15.35	11.84	19.06	No
3/8/07 8:30	4005	125,072	199	3.3	22.11	24.47	19.02	15.36	11.85	19.06	No
3/8/07 9:30	4065	125,274	201	3.3	22.15	24.30	19.04	15.37	11.86	19.08	No
3/8/07 10:30	4125	125,471	198	3.3	21.91	24.50	19.05	15.36	11.86	19.05	No
3/8/07 11:30	4185	125,666	194	3.3	21.92	24.50	19.00	15.38	11.87	19.03	No
3/8/07 12:30	4245	125,860	194	3.2	21.95	24.45	18.95	15.42	11.88	19.02	No
3/8/07 13:30	4305	126,051	191	3.2	21.97	24.50	18.97	15.40	11.88	19.00	No
3/8/07 14:30	4365	126,242	191	3.2	21.95	24.50	18.98	15.38	11.88	18.99	No
3/8/07 15:30	4425	126,436	194	3.2	21.97	24.50	18.99	15.39	11.88	19.00	No
3/8/07 16:00	4455	126,532	96	*3.2*	21.97	24.51	19.00	15.40	11.89	19.08	No

Abbreviations and Notes:

m/d/yy hh:mm = month/day/year hour:minute
min = time in minutes
gal = gallons
gpm = gallons per minute
Italicized value was not measured. Value is based on previous measurement.
--' = not measured

ATTACHMENT A

Drawdown Test Field Data Forms

4:09

PUMP TEST DATA FORM

PAGE 1 of 3

- 2120 Montana
ana Street
land, California
Personnel
Mark/Brian

Pump OD
Pump Pipe OD
Well Casing ID 4-inch
TD 30 fbg
Screened Interval 8 to 28
Pump Intake Depth
Available Dwdn

707-443-0434 ANA - Home

Date 3/4/07 - 3/6/07
Pumping Well EW-2
Observation Wells/Distance from Pumping Well

MEASURED TOP OF CASING

TIME	ELAP TIME (min)	FLOW RATE (gpm)	TOTALIZER FLOW TOTAL (gal)	Pump Pressure (psi)	DEPTH TO WATER Well EW-1	Well EW-2	Well MW-1	Well MW-2	Well MW-3	Well MW-4	SPH Present?	SPH Amount
3/5 11:15	0	0	109907.2	0	11.20	10.70	10.60	10.85	11.10	12.60	No	0
1:15	0	START @ 4 gpm	109907.2	0-10	11.20	10.70	10.60	10.85	11.10	12.60	N	
2:15	30	4	110032.0	0-10	14.48	14.75	11.86	11.02	11.14	12.81	N	
2:45	60	4	110155.0	0-10	15.28	15.82	12.77	11.22	11.14	13.23	N	
3:15	90	4	110280.0	0-10	15.82	16.6	13.49	11.33	11.13	13.57	N	
3:45	120	4	110396.0	0-10	16.28	17.04	14.01	11.46	11.13	13.72	N	0
4:45	180	4	110643.5	0-10	17.01	17.88	14.85	N/m	11.13	14.16	N	
5:45	240	4	110889.0	0-10	17.59	18.43	15.43	N/m	11.13	14.54	N	
6:45	300	4	111124.2	0-10		19.15					N	
7:45	360	4	111360.5	0-10		19.32					N	
8:45	420	4	111597.8	0-10		19.61					N	
9:45	480	4	111832.7	0-10		20.05					N	
10:45	540	4	112067.0	0-10		20.05					N	
11:45	600	3.9-4	112299.1	0-10		20.13					N	
12:45	660	3.9-4.0	112532.1	0-10		20.35					N	
1:45	720	3.8	112761.1	0-10		20.40					N	
2:45	780	3.9	112992.1	0-10		20.35					N	
3:45	840	3.8	113221.2	0-10		20.55					N	
4:45	900	3.8	113452.5	0-10		20.65					N	
5:45	960	3.8	113681.5	0-10		20.70					N	
6:45	1020	3.7	113905.0	0-10		21.03					N	
7:45	1080	3.97	114142.3	0-10	20.01	21.08	17.85	N/m	11.39	17.18	N	
* 8:50	1140	4.03	114385.2	0-10	Setting up	Traffic	Control	on Montana	St.			
9:45	1200	3.49	114594.8	0-10	20.03	20.75	17.95	12.88	11.43	17.34	N	
10:45	1260	3.7	114817.0	0-10	19.93	20.80	17.98	13.05	11.45	17.42	N	
11:45	1320	3.63	115035.2	0-10	19.88	21.03	17.85	13.07	11.48	17.46		

PUMP TEST DATA FORM

Project Name **Shell Pump Test - 2120 Montana**
Project No **249-0733-006**
Location
2120 Montana Street
Oakland, California
Personnel Brian Ward / Mark

*Extract from EW-1 & EW-2

Pump OD
Pump Pipe OD
Well Casing ID **4-inch**
TD **30 fbg**
Screened Interval **8' to 28'**
Pump Intake Depth
Available Dwdn

Date 3/6/07 - 3/7/07
Pumping Well **EW-2**
Observation Wells/Distance from Pumping Well
Turn Sump on at 1:30 PM 3/7/07

TIME	ELAP TIME (min)	FLOW RATE (gpm)	FLOW TOTAL (gal)	Pump Pressure (psi)	DEPTH TO WATER Well EW-1	Well EW-2	Well MW-1	Well MW-2	Well MW-3	Well MW-4	SPH Present?	SPH Amount
3/6 15:50	1565	5.0	11572.5	0-10	19.3	21.5	17.0	12.9	11.52	16.95	No	—
16:20	1595	5.0	11588.6	0-10	21.5	21.6	17.45	13.15	11.50	17.30	No	—
16:50	1625	4.8	11603.2	0-10	21.6	21.6	18.0	13.25	11.50	17.50	No	—
17:30	1665	4.3	11619.8	0-10	21.6	21.9					No	
18:30	1725		11644.5	0-10	21.6	21.95					No	
19:30	1785	6.6	11679.5	0-10	21.81	22.0					No	
20:30	1845	3.5	11695.2	0-10	21.90	22.04					No	
21:30	1905	3.9	11719.0	0-10	22.61	22.07					No	
22:32	1965	4.0	11736.0	0-10	22.01	22.05					No	
23:30	2025	4	11768.0	0-10	—	22.0					No	
3/7 0:30	2085	4	11792.6.5	0-10	21.64	22.0					No	
1:30	2145	4	11816.8	0-10	21.7	22.0					No	
2:31	2205	3.9	11840.3	0-10	21.71	22.11					No	
3:30	2265	4	11864.2	0-10	22.0	22.15					No	
4:30	2325	4	11888.9	0-10	22.1	22.27					No	
5:30	2385	4	11912.5	0-10	22.11	22.28					No	
6:30	2445				22.11	22.29	19.23		11.65	18.90	No	
7:30	2505				22.12	22.28	19.25		11.66	18.94	No	
8:30	2565		119827.1	0-10	22.12	22.30	19.26	14.49	11.66	18.98	No	
9:30	2625	3.7	120065.0	0-10	22.14	22.27	19.30	14.60	11.67	19.04	No	
10:30	2685		120300.4	0-10	22.33	22.31	19.32	14.60	11.68	19.05	No	
11:30	2745	3.7	120526.6	0-10	22.60	22.34	19.34	14.61	11.70	19.06	No	
12:30	2805		120759.0	0-10								
Change out Pump to 4" Grundfos Pump.					* Top	Top of Pump						
2:00	2895		121072.5	5-9	22.14	24.65	19.19	14.61	11.71	18.98	No	Top of Pump *
3:00	2955	4.6	121348.0	5-9	22.14	24.65	19.55	14.96	11.83	19.10	No	
4:00	3015		121579.5	5-9	22.14	24.65	19.60	15.12	11.74	19.11	No	

Suction 15" Below Top of Pump.

Project Name **Shell Pump Test - 2120 Montana**
Project No **249-0733-006**
Location
2120 Montana Street
Oakland, California
Personnel Mark

Pump OD
Pump Pipe OD
Well Casing ID **4-inch**
TD **30 fbg**
Screened Interval **8' to 28'**
Pump Intake Depth
Available Dwdn

Date 3/7 - 3/8
Pumping Well **EW-2**
Observation Wells/Distance from Pumping Well

7:00 pm. Pump off

	TIME	ELAP TIME (min)	FLOW RATE (gpm)	FLOW TOTAL (gal)	Pump Pressure (psi)	DEPTH TO WATER							
						Well EW-1	Well EW-2	Well MW-1	Well MW-2	Well MW-3	Well MW-4	SPH Present?	SPH Amount
3/7	5:00	3075	3.5	121810.0	5-9	22.14	24.65	19.62	N/m	11.75	19.13	N	
	6:30	3135	1.0	122179.0	4-7	22.12	24.75	N/m		N/m		N	
	7:30	3195	3.7	122345.5	5-7	22.25	24.75						
	8:30	3255	3.7	122594.1	5-7	22.23	24.70						
	9:30	3305	3.6	122812.5	5-8	22.55	24.73						
	10:30	3365	3.6	123030.3	5-7	22.70	24.78						
	11:30	3425	3.6	123246.5	5-7	22.72	24.83						
3/8	12:30	3485	3.4	123456.4	5-7	22.75	24.85						
	1:30	3545	4.3	123664.5	5-7	21.77	25.0						
	2:30	3605	3.5	123874.0	5-7	22.51	25.0						
	3:30	3665	3.7	124077.1	5-8	23.30	24.90						
	4:30	3725		124283.7	4-7								
	5:30	3785	3.3	124484.0	4-8	22.21	24.71	15.00					
	6:30	3845	3.3	124685.1	4-7	22.19	24.30	19.01		11.83	19.08	N	
	7:30	3905	3.3	124873.6	4-7		23.21	19.00	15.35	11.84	19.06	N	
	8:30	3965	3.3	125072.2	4-7	22.11	24.47	19.02	15.36	11.85	19.06	N	
	9:30	4025	3.3	125273.5	4-7	22.15	24.30	19.04	15.37	11.86	19.08	N	
	10:30	4085	3.3	125471.2	4-7	21.91	24.50	19.05	15.36	11.86	19.05	N	
	11:30	4145	3.3	125665.6	4-7	21.92	24.50	18.00	15.38	11.87	19.03	N	
	12:30	4205	3.2	125860.0	4-7	21.95	24.45	18.88	15.42	11.88	18.82	N	
	1:30	4265	3.2	126051.2	4-7	21.97	24.50	18.57	15.40	11.88	19.00	N	
	2:30	4325	3.2	126242.4	4-7	21.85	24.50	18.88	15.38	11.88	18.95	N	
	3:30	4385	3.2	126486.0	4-7	21.57	24.50	18.59	15.35	11.88	19.0	N	
	4:00	4415		126531.8	4-7	21.57	24.51	17.07	15.40	11.85	19.08	N	

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DAILY FIELD REPORT

Project Name: 2120 Montana	Cambria Mgr: A. Frtel	Field Rep: Brian W.
Project Number: 249-0733	Date: 3/5/07	Site Address: 2120 Montana
General Tasks: Pump Test Setup		

Time	Activity/Comments	Hours
7:50	Arrive on site. Check in with station rep. at the mart.	
	Assess site safety.	
8:00	Check in with Flagg Safety (Jeff)	
	Discuss traffic controls and observe street.	
8:15	Setup traffic controls. Make adjustments after observations.	
10:15	Receive Baker Tanks delivery.	
10:35	Help Mark unload equipment.	
11:05	Open well vaults. Dewater flooded vaults.	
	Take DTW measurements on MW-1, MW-2, MW-3, MW-4, EW-1, EW-2	
12:15	Help Mark setup equipment.	
2:00	Prepare to extract from EW-2 and discuss the equipment setup and operations with Mark.	
2:15	Start extracting from EW-2.	
	Sign out and depart from site.	

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DAILY FIELD REPORT

Project Name: Montana	Cambria Mgr: ANA FRIEL	Field Rep: MARK
Project Number: 247-0733	Date: 3-5-07	Site Address: 2120 MONTANA ST. OAKLAND
General Tasks: Pump T-COD.		

Time	Activity/Comments	Hours
6:00	LOAD up TOOLS, EQUIPMENT.	
6:40	ARRIVE MARTINEZ, Pick up. GRUNDFOS 2" PUMP. AND CONTROLLER, FLOATS, FITTINGS	
7:40	ARRIVE Gregg DRILLING - Pick up 55 gallon DRUM.	
8:20	ARRIVE EQUIPCO ENVIRO-SUPPLY - Pick up: 3" Submersible Pump.	
9:30	MEET W/ J.R. IN BERKELEY TO Pick up. DRUM DOLLY.	
10:00	ARRIVE EMERYVILLE OFFICE - Pick up EXTRA "NO PARKING" SIGNS. FOR BRIAN. & MONTANA O & M BOOK.	
10:40	ARRIVE ON SITE. REVIEW SSP & SOW.	
	CHECK DTW'S & FOR ANY PRODUCT IN WELLS WITH INTERFACE PROBE.	
	CHECK DEPTH OF EXISTING GWE PUMP IN EW-2 BOTTOM OF PUMP @ 26.' BELOW TOC OR 27.6' BGS.	
	ROTATE BAKER TANK SO LADDER & ACCESS TO MANWAY FACES GWE COMPOUND. (USED DIGGING BAR TO ROTATE TANK	
	GWE SYSTEM OFF UPON ARRIVAL. SYSTEM OFF DUE TO H/HIGH WATER IN OWS. PUMP OUT OWS AND SET UP SIPHON WITH IN OWS TO CLEAR H/HIGH SIGNAL.	
	WIRE H/HIGH BAKER TANK FLOAT TO H/HIGH FROM OWS. & INSTALL IN BAKER TANK @ 90% RANGE.	
	PLUMB IN TOTALIZER TO EW-2 PUMP & RUN TO BAKER TANK W/ ANTI-SIPHON LOOP. 1" NYLON BRAIDED HOSE	
	TEST H/HIGH FLOAT IN BAKER TANK OK.	
	SET UP SUMP PUMP IN BAKER TANK TO RUN MANUALLY. PLUMB TO TRANSFER PUMP DISCHARGE LINE TO SITE	
	FILTERS & CARBON VESSELS BI-PASSING THE OWS. PLUMB WITH 1" NYLON BRAIDED HOSE.	
	LABLE BAKER TANK W/ NON-HAZ STICKER "GROUND WATER"	
2:15	START EXTRACTING FROM EW-2 @ 4. GPM. - COLLECT DATA	

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DAILY FIELD REPORT

2 of 2

Project Name: Montana	Cambria Mgr: Ana Friedel	Field Person: Mark
Project Number: 249-0733	Date: 3-5-07	Site Address: 2120 Montana St. Oakland, CA.
General Tasks: Pump Test.		

Time	Activity/Comments	Code	Hours
3:50	Call Mark current DTW @ 17.4' TOC, 19.04 FBG. Will Leave Pneumatic Pump Running Per Ana.		
4:00	Remove Cones & Barricades from Montana Street. As Per S.O.W. (close up. MW-2) No SPH Detected.		
4:45	Continue Data Collection as Per S.O.W.		
5:00	No SPH. Detected in Baker Tank. Start. Pumping To Empty Baker Tank and Check for Leaks		
	GWE System Totalizer Reading 683850.0 Before Pumping out Baker Tank. No Leaks Detected While Pumping out Baker Tank. System Flow Rate At 10 GPM. With 7 PSI Silt Filter Pressure. No Leaks / Drips from Baker Tank.		
5:35	Bruce Arrives on Site. Review S.O.W. & SSP. Go over Emergency Instructions, Security Issues, System Operations & Expectations.		
6:28	Depart Site.		

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DAILY FIELD REPORT

Project Name: MONTANA	Cambria Mgr: ANA FRIEL	Field Rep: MARK
Project Number: 249-0733	Date: 3/6/07	Site Address: 2120 MONTANA ST. OAKLAND
General Tasks:		

Time	Activity/Comments	Hours
5:50	ON SITE, PUMP TEST RUNNING, BRUCE ON SITE. INCREASE FLOW RATE TO 4.4 gpm - DROPPED TO 3.8 GPM. START up. SUMP PUMP & PUMP DOWN BAKER TANK COLLECT FIELD DATA. HEAVY TRAFFIC ON MONTANA ST.	
7:30	Set up TRAFFIC CONTROL ON MONTANA ST. W/ CONES & BARRICADES COLLECT DATA - CALL ANA.	
12:30	Setting up TO USE 2" GRUNDFOS PUMP. - ADAPT PLUMBING MEASURE OUT PUMP FOR PROPER PUMPING DEPTH. SWITCH PUMPS - GRUNDFOS PUMP CONTROLLER TRIPPING G-F-I. WIRE DIRECT TO SUB PANEL BREAKER. GRUNDFOS PUMP READING ERROR CODES UNDER & OVER CURRENT, UNDER & OVER VOLTAGE. PULL PUMP & SWITCH BACK TO EXISTING PNEUMATIC PUMP. CALL BILL B. EW-2 - AIR REGULATOR LEAKING AIR. PLUMB EW-1 PNEUMATIC PUMP TO TEMPORARY MANIFOLD & START up.	
	BRIAN ARRIVES ON SITE. REVIEW PUMP OPERATIONS & COLLECT DATA. UNWIRED GRUNDFOS POWER SUPPLY FROM SUB PANEL & GFI	
4:15	INSTRUCT BRIAN ON PUMP OPERATIONS - DEPART SITE DROP OFF 3" RENTAL PUMP TO EQUIPCO. PICK up. 4" GRUNDFOS PUMP FROM MARTINEZ W/ WIRE, & SAFETY DISCONNECT W/ FUSED PROTECTION. 12/3 S.O. CORD.	
1:30-2:00	- NEIGHBORING HOUSE LOCATED @ 2106 MONTANA ST. NOTIFIED ME THAT A CITY GARBAGE TRUCK HIT & TORE DOWN A WIRE RUNNING TO THE HOUSE FROM ACROSS THE STREET. THIS WIRE APPEARS TO BE A COAXIAL CABLE GUY WIRE RUNNING FROM THE TELEPHONE POLES TO THE RESIDENCE. SHE STATED SHE DID NOT NOTICE ANY UTILITY INTERFERENCE AND CALLED THE UTILITY COMPANY.	

CAMBRIA

DAILY FIELD REPORT

Project Name: MONTANA	Cambria Mgr: ANA FRIEL	Field Rep: MARK
Project Number: 249-0733	Date: 3/7/06	Site Address: 2120 MONTANA ST. OAKLAND
General Tasks: PUMP TEST.		

Time	Activity/Comments	Hours
5:50	ON SITE, MEET W/ BRUCE. SYSTEM ON.	
	START UP. BAKER TANK DISCHARGE PUMP.	
	SET UP 4" GRUNDFOS 4" SUBMERSIBLE PUMP IF NEEDED. IN CASE.	
	NO PRODUCT DETECTED.	
	COLLECT DATA AS PER SOW.	
	CALL BRIAN, CALL BILL.	
11:30	PREPARE TO SWAP PNEUMATIC PUMP OUT WITH 4" GRUNDFOS	
	ELECTRIC PUMP.	
	PUMPING DIRTY WATER, PUMP PLUGGED UP. PULLED & CLEANED	
	SUCTION SCREEN - REINSTALLED PUMP. DTW IN EW-2 BELOW	
	24.65' TOP OF PUMP. SUCTION SET 15" BELOW TOP OF PUMP,	
	24.65 IS @ TOC.	
	COLLECT DATA. AS PER SOW.	
4:00	CALL BRIAN	
4:45	CALL ANA	
5:50	BRUCE ARRIVES ON SITE, GO OVER ELECTRIC PUMP OPERATIONS	
6:05	DEPART SITE.	

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DAILY FIELD REPORT

Project Name: MONTANA	Cambria Mgr: ANA FRIEL	Field Rep: MARK
Project Number: 249-0733	Date: 3/8/07	Site Address: 2120 MONTANA ST. OAKLAND
General Tasks:		

Time	Activity/Comments	Hours
4:50	ARRIVE ON SITE, BRUCE & SECURITY GUARD ON SITE. START BAKER TANK Discharge Pump. COLLECT DATA.	
7:30	EW-2 DTW RISING, Pull Pump AND Reinstall. Pump STUCK IN SAND OR SILT @ Bottom of well. DTW BACK DOWN TO 24.47 From 23.21' TOC.	
8:00	MEASURED MW-2 FOR PRODUCT. NONE DETECTED. DTW @ 15.36' TOC. DTW HAS BEEN BELOW 15' TOC FOR 16 HOURS.	
9:15	TALK WITH BRIAN ABOUT STATUS. AND DATA COLLECTION NUMBERS	
11:30	BRIAN CALLED - INSTRUCTED TO SHUT DOWN @ 4:00 PM TODAY IF NO PRODUCT IS DETECTED IN MW-2 BY THEN.	
1:15	ANA CALLED, DISCUSSED STATUS OF TEST. AND CONFIRMED 4 PM SHUT DOWN IF NO PRODUCT IS DETECTED.	
1:30	CONTINUE COLLECTING DATA AS PER SOW.	
3:50	BRUCE ON SITE, GO OVER SHUT DOWN INSTRUCTIONS.	
4:00	SHUT DOWN Pump Test, Pump out BAKER TANK Pull Pump IN EW-2 & REPLACE W/ PNEUMATIC Pump. close well VALVES.	
4:15	DEPART SITE, BRUCE ON SITE TO FINISH UP/CLEAN UP.	

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DAILY FIELD REPORT

Project Name: Montana	Cambria Mgr: ANA FRIEL	Field Rep: Mark
Project Number: 249-0733	Date: 3/9/07	Site Address: 2120 Montana St. Oakland
General Tasks: Clean up Pump Test.		

Time	Activity/Comments	Hours
5:50	On Site, Pump Test Shut Down.	
	Remove OWS Hi/High Liquid Level Switch	
	Plumb EW-1 AND EW-2 Back to GWE System Manifold	
	Roll up Discharge hoses	
	Roll up Temporary Baker Tank Float Switches	
	Pack up Sump Pump. - 2" Transfer Pump Real.	
	Re-Plumb Transfer Pump to GWE System.	
	Pack up Sump Pumps (Discharge for Baker Tank & Backup Pump.	
	Remove Ladder from Baker Tank	
	Load up Drum Dolly & 55 gallon Drum.	

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