



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

November 25, 2008

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

RECEIVED

11:21 am, Jan 16, 2009

Alameda County
Environmental Health

SUBJECT: 9-MONTH REMEDIATION EFFECTIVENESS REPORT
RO0262
Albany Hill Mini Mart
800 San Pablo Avenue
Albany, California

Dear Mr. Wickham:

Aqua Science Engineers, Inc. (ASE) is pleased to submit the attached 9-Month Remediation System Effectiveness Report for the subject site.

Should you require any additional information, please feel free to call me at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

A handwritten signature in black ink that reads "David Allen". The signature is written in a cursive, flowing style.

David Allen, R.E.A.
Vice President



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November 25, 2008

REPORT OF
OZONE SPARGING SYSTEM
9-MONTH OPERATION REPORT
at
Albany Hill Mini Mart
800 San Pablo Avenue
Albany, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
55 Oak Court, Suite 220
Danville, CA 94526
(925) 820-9391



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1.0 INTRODUCTION

This submittal presents Aqua Science Engineers, Inc. (ASE)'s nine-month operation report of an ozone-sparging remediation system at the Albany Hill Mini Mart located at 800 San Pablo Avenue in Albany, California (Figures 1 and 2). This report covers the period of November 2007 to August 2008. This report has been prepared on behalf of Dr. Sikand, owner of the property, as required by the Alameda County Health Care Services Agency (ACHCSA).

2.0 REMEDIATION SYSTEM COMPONENTS

2.1 Ozone-Sparging Wells

The remediation system incorporates the use of nine (9) ozone-sparge wells. Previous wells OS-1 and OS-3 were used for ozone sparging. OS-2 was not be used because it did not fit within the preferred grid pattern; OS-2 was properly destroyed. The locations of the nine ozone-sparging wells are shown on Figure 3. The wells are located to destroy hydrocarbons surrounding and downgradient of the USTs. All nine ports on the ozone generation unit are utilized.

2.2 Ozone Generator

The remediation equipment consists of an Ozone Sparge Unit manufactured by H2O Engineering of San Luis Obispo, California. The unit model number is an H2O-OSU20-26 capable of an ozone output of 26 grams/hour at up to 6% by weight. The H2O-OSU20-26 is a compact unit that generates an air/ozone mixture on-site. The unit pumps the air/ozone mixture through nine ports one port at a time on a cycle set by a timer. The air/ozone flow is approximately 3 to 4 cubic feet per minute (cfm) at a pressure of approximately 20 pounds per square inch (psi). Each sparge point receives ozone in 30 minutes intervals approximately 5 times per day for a total of 150 minutes per well/day.

2.3 Manifold System

The air/ozone mixture is pumped through double contained ozone-resistant Teflon tubing from the H2O-OSU20-26 unit to the sparging wells. This tubing consists of a 1/2-inch diameter inner transport tubing within a 1-inch schedule 40 PVC secondary-containment tube. This tubing is flexible and is buried through narrow trenches cut through the concrete surface.

2.4 Remediation Equipment Delivery and Start-up

The H2O Engineering ozone-sparging unit was delivered to the site on November 19, 2007. ASE personnel secured the unit to its concrete pad, and connected all of the ozone delivery tubing to the unit. On November 20, 2007, H2O Engineering personnel arrived at the site to make the final electrical connection to the system, and assist in the start-up. Once the electrical hookup was completed, the system was turned on.

On November 20, 2007, the ozone-sparging system was started up. The pressures of all nine wells were evaluated, and it appeared that there were no leaks in the delivery tubing. After a system wide



diagnostic test was completed, ASE personnel was trained in the operation and maintenance of the system. ASE planned on visiting the site each day for the first five days of operation to make certain the system was working as designed, and to check for ozone in sub-slab vapor monitoring points (VMP's). Due to the Thanksgiving holiday, the system was turned off after several hours on November 20, 2007 and re-started on November 26, 2007.

3.0 FIRST WEEK'S OPERATION AND MAINTENANCE

The ozone-sparging system operates continuously 24-hours a day, 7 days a week. The system was checked daily for the first week of operation and weekly thereafter. During the first week of operation, ozone was measured at the remediation system and within each well box to determine if any leaks had occurred. Ozone was also measured within the buildings on and off-site as well as within each VMP. At no time during the first week of operation did any leaks occur. The system uses an internal ozone detector to measure for ozone within the remediation equipment housing. Should ozone be detected, the on-board microprocessor shuts the ozone off to whichever well is sparging during the ozone detection. When this occurs, the affected well remains in use; however, until the problem is remedied, the well is only sparged with oxygen. The same goes for any high pressure situations. Should a particular well require injection pressure of 50 psi or greater for more than 30 seconds, the on-board microprocessor shuts delivery of ozone and/or oxygen to the affected well. The affected well will remain off until the alarm is cleared and the problem causing the high pressure is repaired. During the first week's operation, the system operated without any alarms of any kind. A log of the first week's operating parameters is attached in Appendix A.

4.0 REMEDIATION SYSTEM OPERATION

The system has been designed to operate continuously 24-hours a day, 7 days a week. In the nine months since the system was turned on, the system has operated as designed better than 95% of the time. The system has had issues that have caused ASE to make adjustments to the system as follows:

- Periodically, the system's internal ozone detector has detected ozone from multiple ozone-sparging wells. These alarms occurred randomly and often during the first several months of operation. The source of the ozone that caused the internal ozone alarms was two-fold. In March 2008, the well seal of ozone well OS-5 was found to have a leak. The leak was observed when the well box was opened and bubbles could be seen in a layer of water that was inside the well box (rain water). Well OS-5 was shut down for a couple of days while cement was added to the inside of the well box to try to cure the problem. Ultimately, well OS-5 required a drill-out and reinstall to effectively cure the seal leak. The destruction and re-installation of OS-5 occurred in late August 2008. The other source of internal ozone detections was from a faulty ozone sensor within the system box. In early June 2008, a new ozone sensor was installed and the internal ozone detection alarms virtually ceased completely.
- Periodically, the system's high pressure alarm would trip during sparging of a number of wells. When this occurred, ASE would shut the affected well off for a day and install liquid acid (muriatic) into the affected well. The acid was used to destroy that scaling that was likely blocking the small holes of the injection point at the bottom of the well. The affected wells



were then turned back on several days later. Over the period of nine months, several wells had to be doused with the acid up to 3 times.

5.0 GROUNDWATER SAMPLING EVENTS

Since the start-up of the remediation system, the ten (10) groundwater monitoring wells have been sampled 4 times. The analytical results for groundwater are tabulated in Table One. Graphs showing the TPH-G, benzene and MTBE concentrations in each of the monitoring wells since August 2006 are in the Graphs Section of this report. August 2006 was chosen as the starting point because it shows analytical results covering two years of sampling events both prior to and after the remediation system was turned on. The vertical axis of the graphs, showing concentration levels of each constituent, varies from well to well.

6.0 FINDINGS

- A decreasing trend in concentrations of TPH-G and benzene, and a stable MTBE concentration is apparent in monitoring well MW-1.
- A decreasing trend in concentrations of TPH-G, benzene, and MTBE is apparent in monitoring well MW-2.
- A decreasing trend in concentrations of TPH-G, benzene, and MTBE is apparent in monitoring well MW-3.
- A decreasing trend in concentrations of TPH-G, benzene, and MTBE is apparent in monitoring well MW-4.
- Following an initial increase in TPH-G, a decreasing trend in concentrations of TPH-G and benzene is apparent in monitoring well MW-5R. The MTBE concentration has risen, but is not at an all time high.
- Following an initial increase in TPH-G, a decreasing trend in concentrations of TPH-G is apparent in monitoring well MW-6. The benzene and MTBE concentrations have shown a fluctuation, but are still below historical highs.
- A decreasing trend in concentrations of TPH-G, benzene, and MTBE is apparent in monitoring well MW-7.
- A decreasing trend in concentrations of TPH-G, benzene, and MTBE is apparent in monitoring well MW-8.
- The TPH-G, benzene and MTBE concentrations have shown a fluctuation in MW-9, but are still below historical highs.
- The TPH-G, benzene and MTBE concentrations have shown a fluctuation in MW-10, but are still below historical highs.

The ozone sparging operation continues to be an effective means of remediating the petroleum hydrocarbon and oxygenate compounds in the groundwater at the site.



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7.0 PROPOSED REMEDIATION STRATEGY FOR THE NEXT YEAR

- ASE believes that the system should remain operational through December 2009.
- Groundwater sampling of the ten monitoring wells should remain on a quarterly sampling frequency. ASE will continue to visit the site on a weekly basis to perform the necessary O&M activities.

On behalf of the property owner, and our client, we respectfully request a written authorization of the continued remediation activities through December 2009. Should you have any questions or comments, please call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



David Allen, R.E.A.
Senior Project Manager



Robert E. Kitay, R.G., R.E.A.
Senior Geologist

cc: Dr. Sikand, Responsible Party
Mr. Jerry Wickham, ACHCSA
Mr. Dave Charter, USTCF

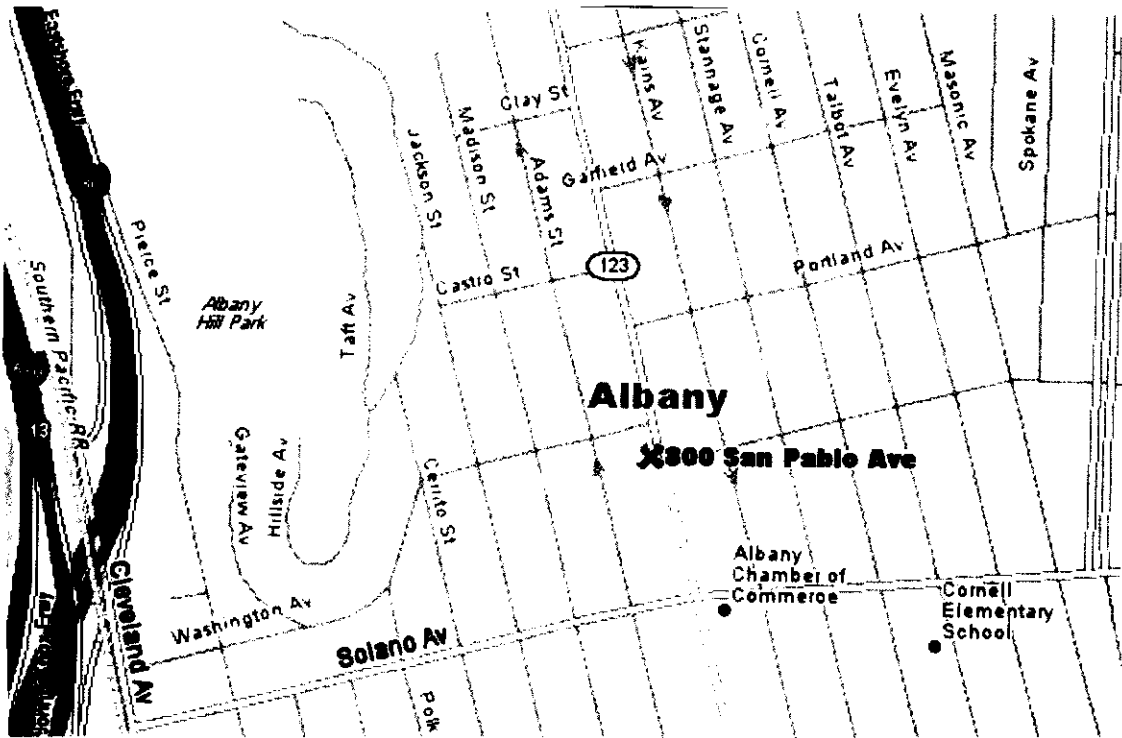


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FIGURES



NORTH



LOCATION MAP	
ALBANY HILL MINI MART 800 SAN PABLO AVE ALBANY, CALIFORNIA	
AQUA SCIENCE ENGINEERS	FIGURE 1

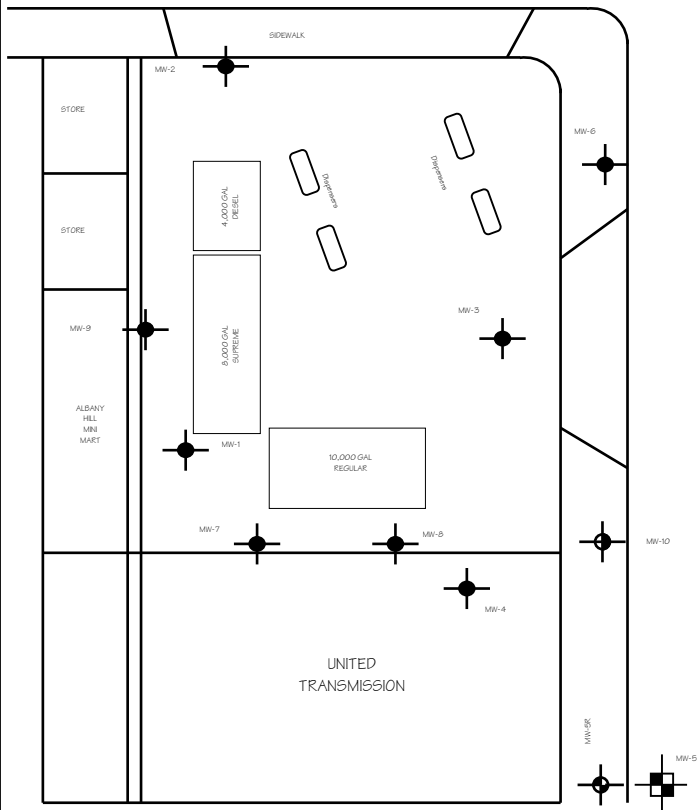


NORTH





SCALE: 1" = 20'

WASHINGTON AVENUE

SAN PABLO AVENUE



LEGEND

- MW-9  MONITORING WELL, INSTALLED BY AARS
- MW-5R  MONITORING WELL, INSTALLED BY HE2
- MW-10  MONITORING WELL, INSTALLED BY ASE
- MW-5  MONITORING WELL, DESTROYED

MONITORING WELL
LOCATION MAP

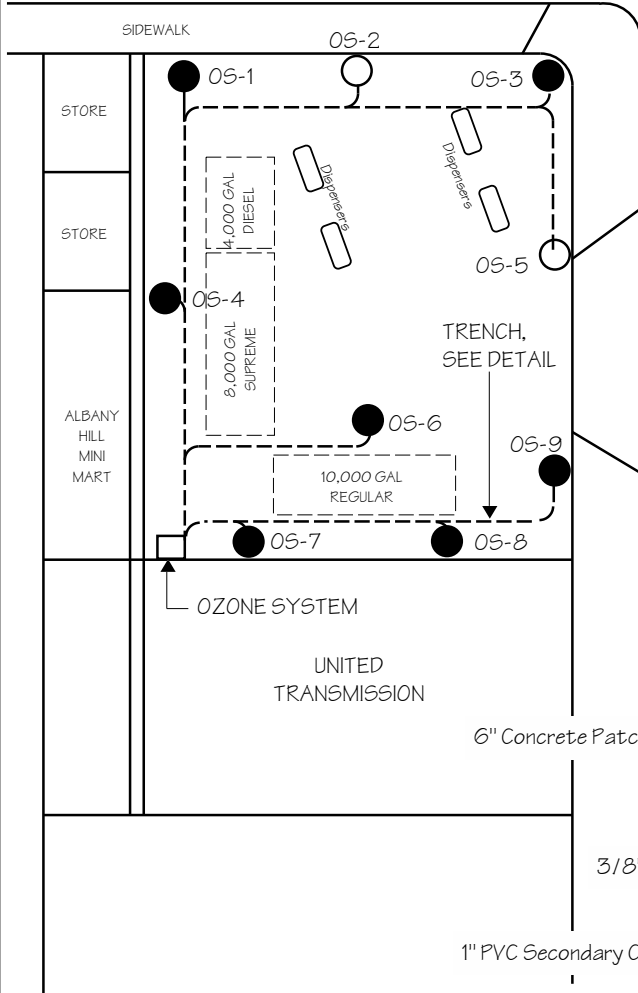
ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA



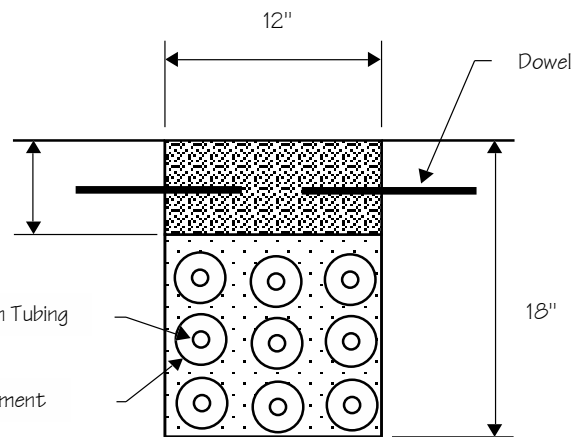
NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE



SAN PABLO AVENUE



LEGEND

OS-9  EXISTING AIR-SPARGING WELL

OZONE-SPARGE WELL AND TRENCH LAYOUT MAP

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA



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TABLES

TABLE ONE

Summary of Analytical Results for **GROUNDWATER** Samples

Albany Hill Mini Mart

800 San Pablo Avenue, Albany, CA

All results are in **parts per billion (ppb)**

Well ID or Sample Point	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-1	8/6/99	1,500	1,200	4.3	2.9	9.1	28	--	--	ND	--
	11/5/99	1,800	1,400	5.1	3.2	8.9	33	--	--	ND	--
	2/7/00	1,100	890	3.3	1.9	5.6	21	--	--	ND	--
	5/7/00	970	650	2.9	1.7	4.9	18	--	--	ND	--
	8/3/00	1,200	270*	190	43.0	41	160	--	--	360	--
	11/8/00	4,200	230*	990	200.0	130	560	--	--	840**	--
	2/8/01	2,800	380*	630	130.0	51	250	--	--	390	--
	6/7/01	650	190	97	13.0	20	62	--	--	320	--
	9/7/01	970	400	260	17.0	44	140	--	--	460	--
	12/13/01	291	< 50	91.7	1.4	17.4	7.2	--	--	499	--
	6/13/02	5,120	2,160*	1,860	22.0	316	--	--	--	325	--
	11/11/02	824	< 50	216	< 5	22	20	--	--	290	--
	2/14/03	1,783	590*	546	5.0	90	52	--	--	321	--
	9/10/04	900	82	210	8.4	52	23	< 0.5	5.1	220	< 0.5
	12/7/04	540	< 80	130	3.1	24	14	< 0.5	< 5.0	240	< 0.5
	4/18/05	1,600	< 200	390	3.6	32	57	< 0.5	< 5.0	240	0.53,1,2-DCA
	6/20/05	2,500	< 300	740	12.0	110	69	< 0.5	5.7	240	< 0.50
	10/7/05	520	130	97	26.0	11	28	< 0.50	< 5.0	190	< 0.50
	12/7/05	220	86	42	11.0	6.2	12	< 0.50	< 5.0	230	< 0.50
	3/6/06	180	69	63	1.6	3.8	2.3	< 0.50	< 0.50	180	< 0.50
	6/27/06	2,800	< 300	1,100	7.1	140	44	< 0.50	9.9	220	< 0.50
	8/24/06	3,200	< 200	1,100	6.6	170	16	< 2.0	< 9.0	250	< 2.0
	11/20/06	630	< 50	170	1.2	22	2.8	< 0.50	6.2	220	< 0.50
	2/5/07	570	< 50	180	1.0	23	3.4	< 0.50	< 5.0	180	< 0.50
	5/7/07	500	< 50	200	0.64	12	0.72	< 0.50	< 5.0	210	< 0.50
	8/3/07	930	< 80	300	2.8	49	6.8	< 0.50	7.1	160	< 0.50
	12/5/07	560	< 50	150	37	9.8	46	< 0.50	< 5.0	100	< 0.50
	2/25/08	1,000	100	340	11	14	23	< 0.50	11	170	< 0.50
	5/20/08	740	< 50	220	3.2	7.5	6.9	< 0.50	23	170	0.68 DIPE
	8/22/08	190	< 50	52	1.2	7.3	4.6	< 0.50	11	160	0.60 DIPE
MW-2	8/6/99	ND	340	ND	ND	ND	ND	--	--	ND	--
	11/5/99	ND	420	ND	ND	ND	0.7	--	--	ND	--
	2/7/00	ND	310	ND	ND	ND	0.6	--	--	ND	--
	5/7/00	ND	280	ND	ND	ND	< 1	--	--	ND	--
	8/3/00	460	70*	79	3.0	43	8	--	--	3,300	--
	11/8/00	200	120	57	2.0	13	8	--	--	3,000	--
	2/8/01	290	80	50	1.0	0.6	4	--	--	3,100	--
	6/7/01	210	80	18	0.6	3	5	--	--	2,000	--
	9/7/01	230	ND	51	ND	8	8	--	--	2,400	--
	12/13/01	172	ND	53	1.2	7.7	8.4	--	--	1,780	--
	6/13/02	86	< 50	6	6.7	1.1	4.5	--	--	1,830	--
	11/11/02	1,040	< 50	5	1.0	< 1	5	--	--	1,250	--
	2/14/03	82	< 50	8	< 1	1	< 3	--	--	1,520	--
	9/10/04	< 100	72	1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	620	< 1.0
	12/7/04	< 150	86	17	< 1.5	< 1.5	< 1.5	< 1.5	< 7.0	540	< 1.5
	4/18/05	280	130	55	< 1.5	4.4	< 1.5	< 1.5	< 20	840	< 1.5
	6/20/05	200	100	34	< 0.90	2.4	2.7	< 0.90	5.2	540	< 0.90
	10/7/05	< 90	150	11	< 0.90	< 0.90	< 0.90	< 0.90	< 5.0	360	< 0.90
	12/7/05	< 90	110	1.5	< 0.90	< 0.90	< 0.90	< 0.90	< 5.0	500	< 0.90
	3/6/06	< 90	88	7.0	< 0.90	< 0.90	< 0.90	< 0.50	5.2	610	< 0.50
	6/27/06	270	150	49	< 0.50	5.1	3.4	0.58	8.9	540	< 0.50
	8/24/06	110	120	13	< 0.50	1.3	< 0.50	< 0.50	< 5.0	480	< 0.50
	11/20/06	56	< 50	5.6	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	330	< 0.50
	2/5/07	98	< 50	28	< 0.50	< 0.50	< 0.50	0.61	< 5.0	500	< 0.50
	5/7/07	< 90	< 50	22	< 0.90	< 0.90	< 0.90	< 0.90	6.0	450	< 0.90
	8/3/07	< 50	< 50	2.2	< 0.50	< 0.50	< 0.50	< 0.50	9.0	240	< 0.50
	12/5/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	37	82	< 0.50
	2/25/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	10	< 0.50
5/20/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	0.71	< 0.50	
8/22/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	0.71	< 0.50	

TABLE ONE

Summary of Analytical Results for **GROUNDWATER** Samples

Albany Hill Mini Mart

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Well ID or Sample Point	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-3	8/6/99	ND	ND	ND	ND	ND	ND	--	--	ND	--
	11/5/99	92	54	ND	ND	0.6	1.7	--	--	ND	--
	2/7/00	120	71	ND	0.6	0.8	2.2	--	--	ND	--
	5/7/00	100	68	ND	ND	0.7	1.9	--	--	ND	--
	8/3/00	910	300*	220	9.0	35	16	--	--	11,000**	--
	11/8/00	990	200	320	0.8	18	9	--	--	8,000	--
	2/8/01	990	110	180	21.0	7	24	--	--	5,200**	--
	6/7/01	370	140	62	4.0	8	13	--	--	6,600**	--
	9/7/01	460	ND	87	1.0	11	25	--	--	9,400**	--
	12/13/01	251	ND	66.8	0.9	2.6	8.4	--	--	6,610	--
	6/13/02	3,630	< 50	41	60.0	41	187	--	--	8,820**	--
	11/11/02	6,210	< 50	150	< 1	5	< 3	--	--	7,770	--
	2/14/03	176	< 50	31	< 1	2	< 3	--	--	5,040	--
	9/10/04	< 1,000	140	110	< 10	< 10	21	20	200	4,400	< 10
	12/7/04	1,000	150	310	19.0	24	50	21	< 100	4,000	< 10
	4/18/05	750	150	170	16.0	33	36	6.1	< 50	1,700	< 5.0
	6/20/05	680	120	140	9.7	20	38	7.4	< 20	1,900	< 4.0
	10/7/05	630	160	140	10.0	11	34	9.2	< 20	2,000	< 4.0
	12/7/05	550	200	128	6.4	7.2	10	11	56	2,400	< 4.0
	3/6/06	88	36	< 2.0	5.3	2.1	4.2	13	1,000	1,000	< 2.0
	6/27/06	7,400	< 1,500	2,800	12	190	56	9.8	110	760	< 4.0
	8/24/06	< 400	130	24	< 4.0	< 4.0	14	9.0	40	2,800	< 4.0
	11/20/06	< 400	< 50	42	< 4.0	4.4	8.7	7.3	71	1,700	< 4.0
	2/5/07	440	< 50	110	4.2	< 4.0	16	7.3	39	1,600	< 4.0
	5/25/07	240	< 50	52	4.3	4.3	18	4.3	140	1,100	< 2.0
	8/3/07	500	< 50	190	7.2	12	40	4.4	320	860	< 1.5
	12/5/07	< 150	< 50	< 1.5	< 1.5	< 1.5	< 1.5	5.1	280	1,200	< 1.5
	2/25/08	< 200	< 50	< 2.0	< 2.0	< 2.0	< 2.0	5.0	13	1,300	< 2.0
	5/20/08	< 50	< 50	2.5	< 0.50	< 0.50	< 0.50	< 0.50	6.7	200	0.54 DIPE
	8/22/08	< 50	< 50	1.5	< 0.50	< 0.50	< 0.50	0.64	6.9	380	< 0.50
MW-4	6/13/02	4,460	1,500*	425	409.0	115	730	--	--	32	--
	11/11/02	5,150	2,380*	2,010	74.0	399	252	--	--	< 20	--
	2/14/03	6,360	2,410*	1,560	82.0	274	573	--	--	< 1	--
	9/10/04	1,600	180	370	6.5	68	93	< 1.0	10	13	1.1 (DIPE)
	12/7/04	1,900	< 200	450	8.2	72	100	< 0.9	5.4	9.5	< 0.9
	4/18/05	10,000	< 800	1,500	27.0	420	900	< 1.5	15	18	< 1.5
	6/20/05	6,100	< 600	830	19.0	280	400	< 1.5	17	22	< 1.5
	10/7/05	3,200	< 500	660	8.7	110	140	< 1.5	12	14	< 1.5
	12/7/05	1,000	< 200	220	2.5	48	37	< 0.5	< 5.0	12	< 0.5
	3/6/06	1,200	< 300	280	2.1	32	77	0.65	< 0.50	75	1.0 (DIPE) / 0.57(1,2-DCA)
	6/27/06	2,000	< 300	570	4.0	110	120	< 0.90	15	110	1.2(DIPE)
	8/24/06	2,500	< 300	830	6.5	120	120	< 0.90	18	95	< 0.90
	11/20/06	1,900	< 80	590	4.8	37	29	< 1.5	< 1.5	14	< 1.5
	2/5/07	2,700	< 80	970	4.4	53	62	< 1.5	< 12	45	< 1.5
	5/7/07	2,900	< 200	1,200	5.0	89	95	< 1.5	18	34	< 1.5
	8/3/07	1,800	< 200	610	3.4	36	25	0.62	9.3	25	1.4 DIPE
	12/5/07	1,300	< 200	530	3.4	3.4	20	< 0.90	6.0	32	0.98 DIPE
	2/25/08	800	< 50	180	6.0	15	35	< 0.50	30	44	0.76 DIPE
	5/20/08	560	< 50	130	3.6	5.7	14	< 0.50	21	34	0.85 DIPE
	8/22/08	110	< 50	7.3	< 0.50	< 0.50	0.79	< 0.50	12	28	1.0 DIPE

TABLE ONE
 Summary of Analytical Results for **GROUNDWATER** Samples
Albany Hill Mini Mart
 800 San Pablo Avenue, Albany, CA
 All results are in **parts per billion (ppb)**

Well ID or Sample Point	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-5	6/13/02	536	<50	6.4	0.6	22	23	--	--	11	--
	11/11/02	3,270	1,230*	<1	<1	28	8	--	--	<1	--
	2/14/03	1,260	610*	9	7.0	22	5	--	--	<1	--
	9/10/04	1,300	150	2.4	<0.50	0.77	<0.50	<0.50	<5.0	<0.50	<0.50
	12/7/04	1,000	<200	4.1	<0.50	1.4	<0.50	<0.50	<5.0	<0.50	<0.50
	4/18/05	Improperly Destroyed by City of Albany During Street Improvements									
MW-5R	10/7/05	760	<800	2	<0.50	8.3	1.2	<0.50	<5.0	<0.50	<0.50
	12/7/05	5,200	<2,000	36	1.0	320	15	<0.50	<5.0	<0.50	<0.50
	3/6/06	6,300	<3,000	44	1.2	370	19	<0.90	5.9	<0.90	<0.90
	6/27/06	5,100	<2,000	53	1.3	370	17	<0.50	5.6	<0.50	<0.50
	8/24/06	6,500	<2,000	80	1.8	510	18	<0.90	9.9	<0.90	<0.90
	11/20/06	5,400	<600	160	2.4	370	100	<0.90	10	81	<0.90
	2/5/07	6,300	<1,500	69	3.2	480	31	<0.80	10	<0.80	<0.80
	5/7/07	5,600	<500	61	2.4	510	19	<0.90	11	<0.90	<0.90
	8/3/07	170	<50	3.7	<0.50	<0.50	<0.50	1.4	9.2	330	<0.50
	12/5/07	4,500	<800	32	1.3	240	10	<0.50	<5.0	<0.50	<0.50
	2/25/08	6,000	<600	41	1.7	310	13	<0.50	5.6	<0.50	<0.50
	5/20/08	220	<50	2.4	<0.50	<0.50	<0.50	<0.50	<5.0	37	<0.50
	8/22/08	91	<50	<0.50	<0.50	<0.50	<0.50	0.57	<5.0	100	<0.50
	MW-6	6/13/02	2,980	1,460*	31	2.3	3.8	12	--	--	310
11/11/02		3,570	1,210*	336	5	<5	<15	--	--	95	--
2/14/03		3,770	1,620*	429	12	7	10	--	--	122	--
9/10/04		<1,000	390	2.7	<0.50	<0.50	<0.50	2.3	48	280	<0.50
12/7/04		1,800	<600	32	1.7	<0.50	1.1	2.2	49	160	<0.50
4/18/05		1,200	1,400	34	1.3	<0.50	0.90	0.86	19	36	<0.50
6/20/05		590	1,300	3.3	<0.50	<0.50	<0.50	<0.50	5.5	8.5	<0.50
10/7/05		470	1,300	6.8	<0.50	<0.50	<0.50	0.67	20	82	<0.50
12/7/05		420	910	10	<0.50	<0.50	<0.50	<0.50	7.3	22	<0.50
3/6/06		790	590	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	4.3	<0.50
6/27/06		2,600	980	100	4.0	0.96	2.2	1.0	49	78	<0.50
8/24/06		1,200	960	57	2.3	<0.50	1.1	0.82	34	64	<0.50
11/20/06		1,300	<200	58	1.7	<0.50	1.3	<0.50	18	26	<0.50
2/5/07		1,200	<200	49	1.8	<0.50	1.6	0.90	45	67	<0.50
5/7/07		290	<50	3.1	<0.50	<0.50	<0.50	<0.50	<0.50	5.0	<0.50
8/3/07		580	<80	23	1.0	<0.50	<0.50	0.57	34	45	<0.50
12/5/07		870	<800	2.8	<0.50	<0.50	<0.50	0.58	20	54	<0.50
2/25/08		1,400	<500	16	0.73	<0.50	9.6	<0.50	19	77	<0.50
5/20/08		1,600	<200	42	2.0	<0.50	1.1	0.72	59	58	<0.50
8/22/08		520	<300	3.2	<0.50	<0.50	<0.50	0.62	47	70	<0.50
MW-7	6/13/02	24,100	1,570*	2,310	657	945	5,430	--	--	951	--
	11/11/02	4,760	2,160*	1,820	21	316	1,141	--	--	702	--
	2/14/03	4,320	2,380*	1,020	7	223	293	--	--	1,410	--
	9/10/04	4,800	<300	640	16	250	490	<1.5	31	590	<1.5
	12/7/04	990	<300	140	3.4	49	70	4.0	<20	960	<2.0
	4/18/05	1,400	<300	260	1.3	96	16	<1.0	20	370	<1.0
	6/20/05	1,900	<200	320	1.0	130	24	<0.50	17	370	<0.50
	10/7/05	2,600	<800	190	4.7	91	200	<0.73	8.0J	310	<0.50
	12/7/05	Not sampled. Inaccessible									
	3/6/06	640	<200	85	0.88	24	30	<0.50	8.0	150	<0.50
	6/27/06	1,200	<200	180	1.7	64	64	<0.50	14	150	<0.50
	8/24/06	990	<200	120	0.96	36	51	<0.50	13	180	<0.50
	11/20/06	1,600	<200	200	1.6	59	160	<0.50	5.2	180	<0.50
	2/5/07	2,300	<200	390	2.6	120	140	<0.50	15	190	<0.50
	5/7/07	490	<80	190	0.61	9.3	3.2	0.55	16	200	<0.50
	8/3/07	2,100	<200	390	2.4	94	73	0.61	19	220	0.51D1PE
	12/5/07	140	<50	7.2	0.67	3.0	18	0.98	150	180	<0.50
	2/25/08	<50	<50	0.98	<0.50	0.69	2.4	<0.50	<5.0	100	<0.50
	5/20/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	1.3	<0.50
	8/22/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50

TABLE ONE

Summary of Analytical Results for **GROUNDWATER** Samples

Albany Hill Mini Mart

800 San Pablo Avenue, Albany, CA

All results are in **parts per billion (ppb)**

Well ID or Sample Point	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs	
MW-8	6/13/02	20,000	7,760*	2,200	1,140	1,050	4,090	--	--	12,000	--	
	11/11/02	5,010	2,010*	187	<1	15	<3	--	--	16,600	--	
	2/14/03	1,980	<50	607	6	113	40	--	--	11,500	--	
	9/10/04	<2,000	200	110	<20	26	49	25	<200	8,600	<20	
	12/7/04	2,000	280	420	<10	40	61	31	100	6,800	<10	
	4/18/05	<1000	250	76	<10	23	<10	17	<100	3,700	<10	
	6/20/05	1,300	300	190	<7.0	21	40	19	<40	3,400	<7.0	
	10/7/05	<700	200	85	<7.0	9.3	8.3	23	<40	4,400	<7.0	
	12/7/05	1,400	300	250	8.7	41	90	18	<40	4,400	<7.0	
	3/6/06						Not sampled. Inaccessible					
	6/27/06	710	250	100	<5.0	7.8	26	16	30	3,100	<5.0	
	8/24/06	540	260	74	<5.0	5.4	45	15	<25	2,700	<5.0	
	11/20/06	2,100	<100	380	4.4	18	170	10	530	1,900	<4.0	
	2/5/07	1,700	<100	560	3.9	7.5	80	2.7	970	630	<1.0	
	5/7/07	510	<50	170	0.61	2.1	5.4	0.57	460	110	<0.50	
	8/3/07	840	<80	240	1.6	7.0	18	<0.50	100	100	<0.50	
	12/5/07	1,400	<300	9.2	3.9	36	310	1.5	210	370	<0.50	
	2/25/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	130	<0.50	
	5/20/08	<50	<50	<0.50	<0.50	<0.50	1.5	<0.50	<5.0	6.1	<0.50	
	8/22/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
	MW-9	6/27/02	19,000	--	1,430	1,750	501	5,410	--	--	<0.5	--
		11/11/02	19,000	13,200*	3,390	4,540	1,020	9,050	--	--	549	--
		2/14/03	21,300	8,200*	1,700	2,200	701	4,970	--	--	<1	--
		9/10/04	12,000	<1,500	890	37	280	2,000	<5.0	<50	<5.0	<5.0
		12/7/04	13,000	<1,500	950	580	480	2,900	<5.0	<50	<5.0	<5.0
		4/18/05	9,600	<1,000	620	180	260	1,400	<2.5	<25	<2.5	<2.5
		6/20/05	9,800	<1,500	760	260	430	1,400	<2.0	<9.0	<2.0	<2.0
		10/7/05	3,400	<1000	350	170	100	480	<0.50	<5.0	<0.50	<0.50
12/7/05		5,600	<1000	320	97	200	580	<0.90	<5.0	<0.50	<0.50	
3/6/06		4,200	<800	460	120	97	600	<0.90	<5.0	<0.90	<0.50	
6/27/06		8,100	<1,000	710	330	390	1,700	<0.50	<5.0	<2.0	<0.50	
8/24/06		6,100	<800	550	220	280	1,200	<2.0	<9.0	<2.0	<2.0	
11/20/06		5,200	<400	310	98	130	850	<1.0	<5.0	<1.0	<1.0	
2/5/07		4,500	<400	370	120	190	720	<1.0	<5.0	<1.0	<1.0	
5/7/07		6,400	<300	700	220	380	1,200	<1.0	<5.0	<1.0	<1.0	
8/3/07		5,300	<300	380	140	290	830	<0.90	<5.0	<0.90	<0.90	
12/5/07		4,100	<300	250	84	130	990	<1.0	<5.0	<1.0	<1.0	
2/25/08		2,600	<300	250	20	120	290	<0.50	<5.0	<0.50	<0.50	
5/20/08	3,000	<200	320	39	170	390	<0.50	<5.0	0.51	<0.50		
8/22/08	3,700	<600	220	68	190	610	<0.50	<5.0	0.72	<0.50		
MW-10	10/7/05	470	330	17	<0.50	2	11	1.2	9.4J	210	<0.50	
	12/7/05					Not sampled. Inaccessible						
	3/6/06	130	130	4.2	<0.50	<0.50	<0.50	4.9	13	820	0.55 (DIPE)	
	6/27/06	<400	140	4.4	<0.50	<0.50	<0.50	8.9	21	1,300	0.60 (DIPE)	
	8/24/06	<400	140	<4.0	<4.0	<4.0	<4.0	7.0	<20	1,400	<4.0	
	11/20/06	<150	<50	2.5	<1.5	<1.5	<1.5	3.3	10	750	<1.5	
	2/5/07	170	<50	3.0	<0.90	<0.90	<0.90	2.4	6.5	440	<0.90	
	5/7/07	96	<50	2.3	<0.50	<0.50	<0.50	0.83	<5.0	180	<0.50	
	8/3/07	5,000	<1,000	67	2.3	410	14	<0.50	6.7	<0.50	<0.50	
	12/5/07	310	<50	1.2	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
	2/25/08	240	240	5.3	<0.50	<0.50	<0.50	<0.50	9.3	57	<0.50	
	5/20/08	3,400	<500	23	1.2	120	5.9	<0.50	<5.0	<0.50	<0.50	
	8/22/08	1,900	<500	22	0.89	3.8	2.1	<0.50	5.1	<0.50	<0.50	
	ESL		100	100	1.0	40	30	20	NE	12	5.0	Varies

Notes:

Data prior to August 2004 is based on a table compiled by AARS - ASE has not checked results against original laboratory reports.

* Does not match diesel pattern

** Confirmed by GC/MS method 8260

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (November 2007)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region for sites where groundwater is a current or potential source of drinking water.

Most recent concentrations are in **Bold**.

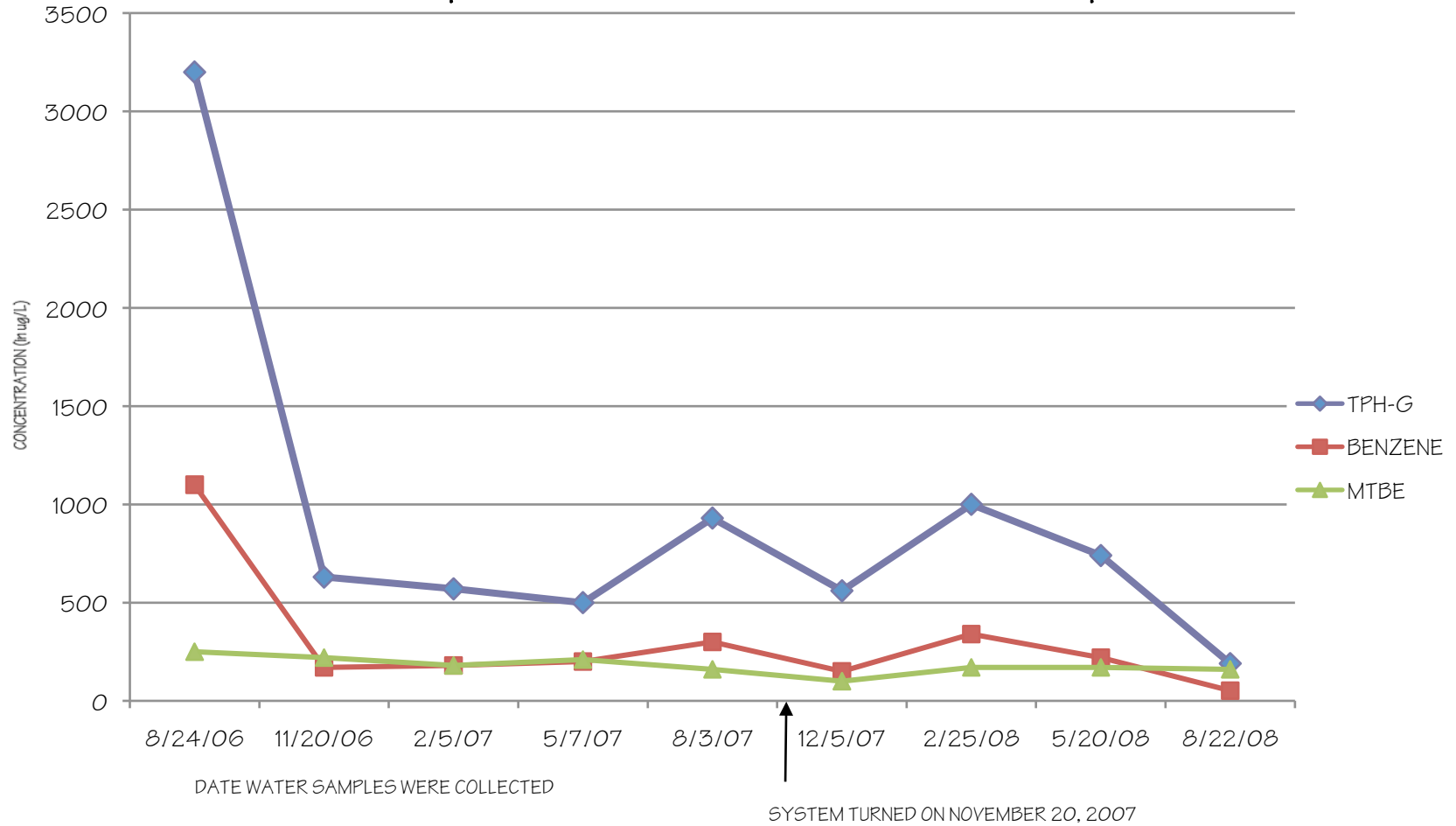
Non-detectable concentrations noted by the less than sign (<) followed by the laboratory detection limit.



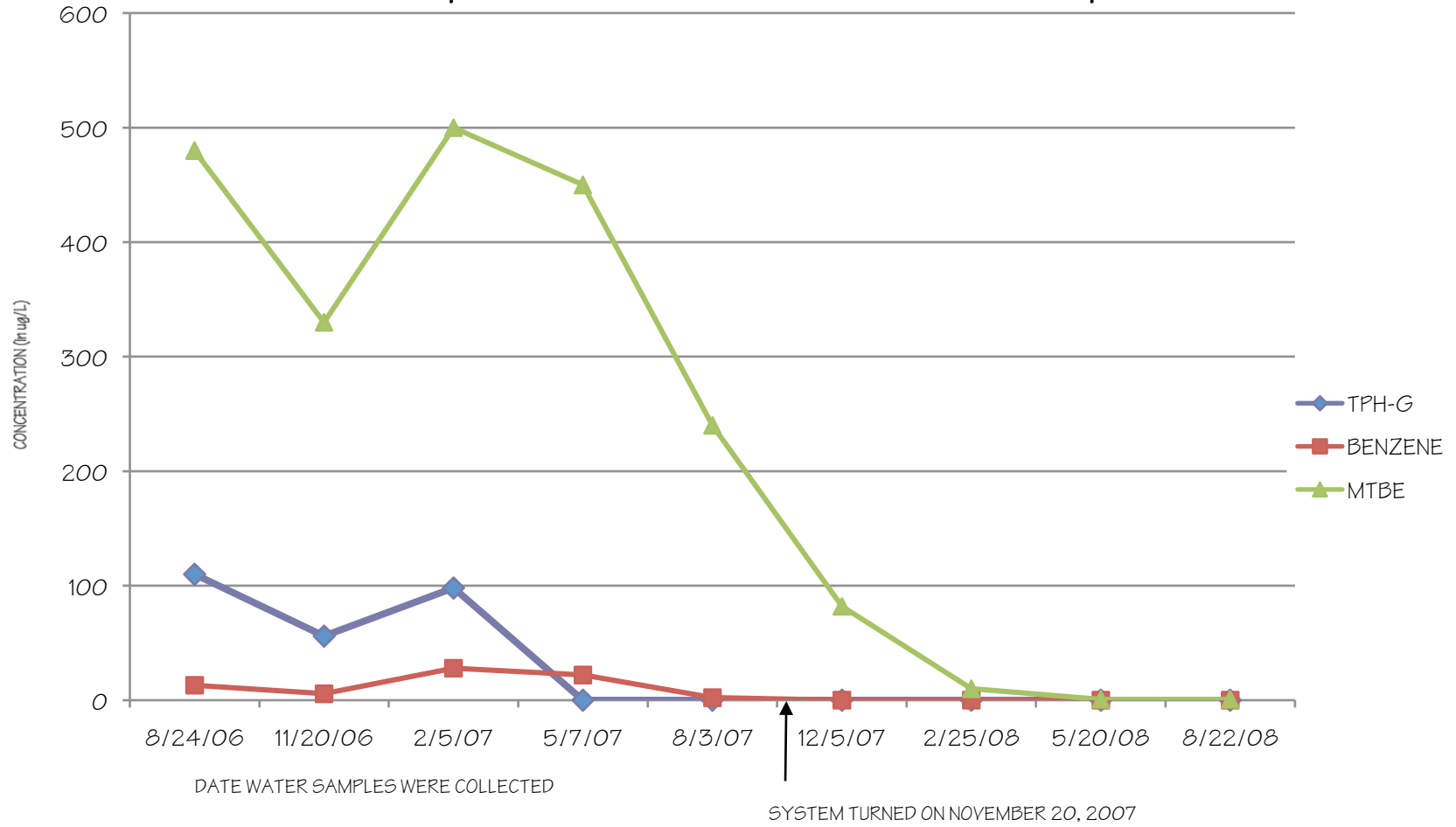
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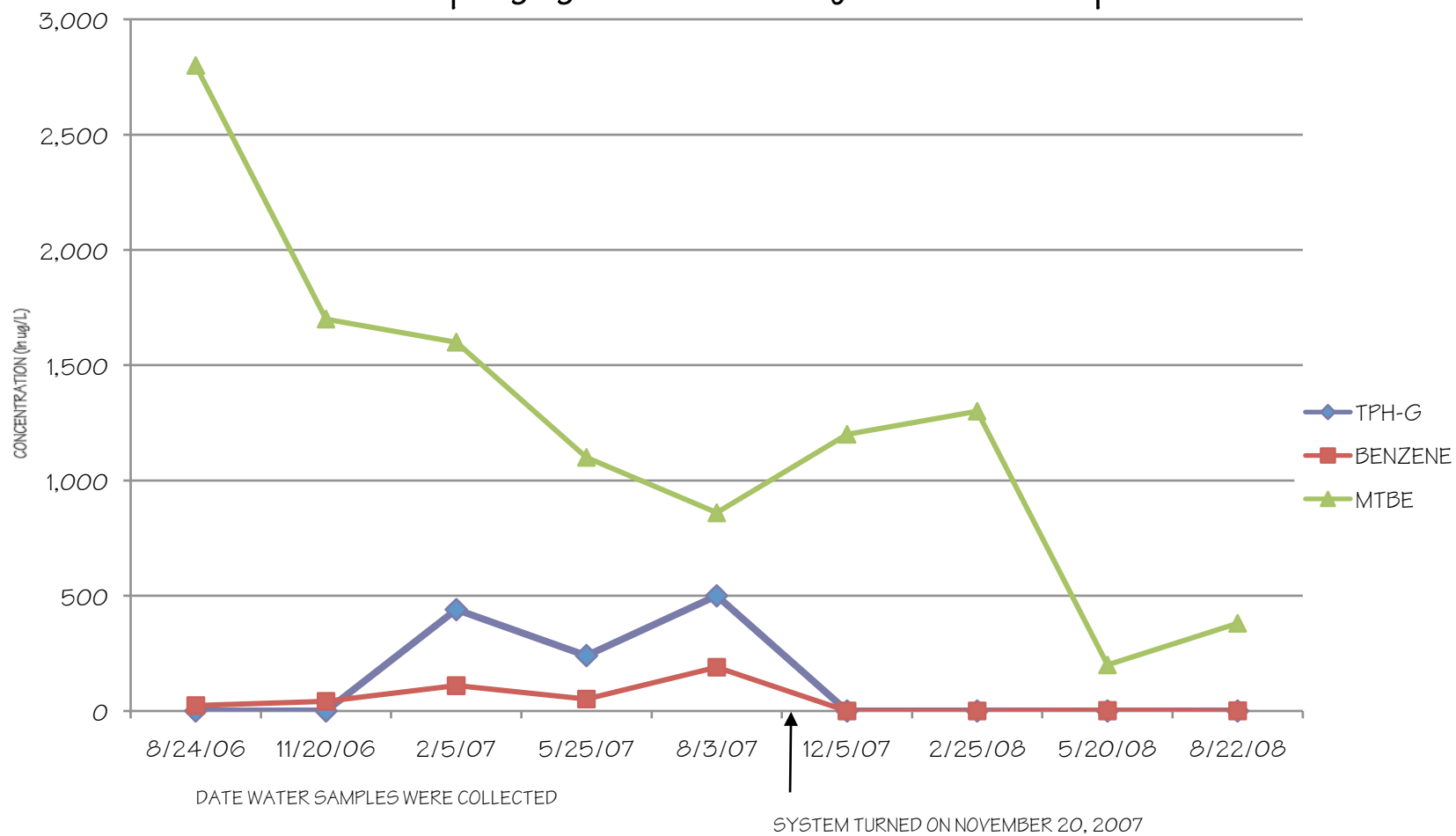
MTBE Concentrations in Monitoring Well MW-1 Since Ozone-Sparging Remediation System Start-Up



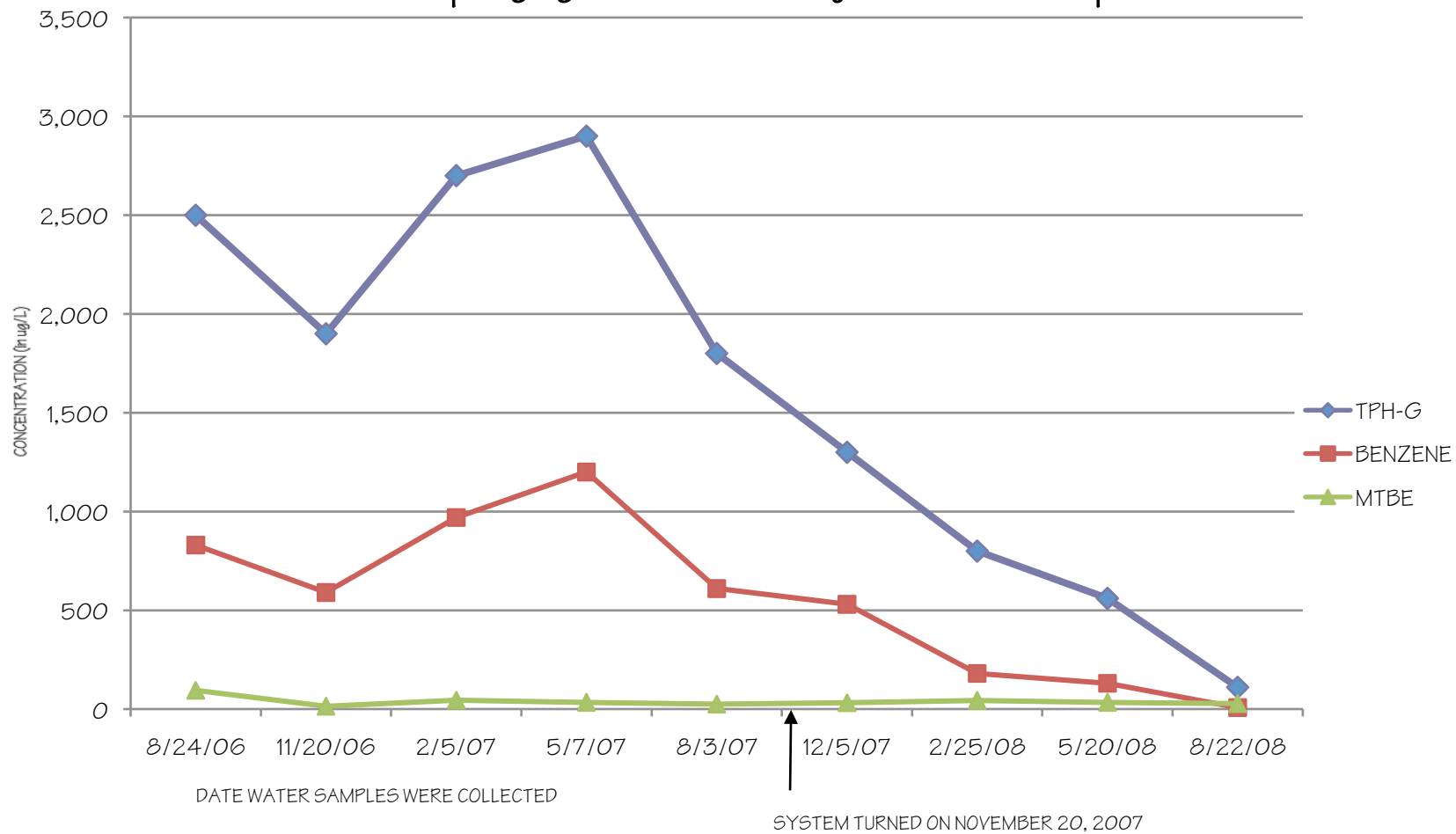
MTBE Concentrations in Monitoring Well MW-2 Since Ozone-Sparging Remediation System Start-Up



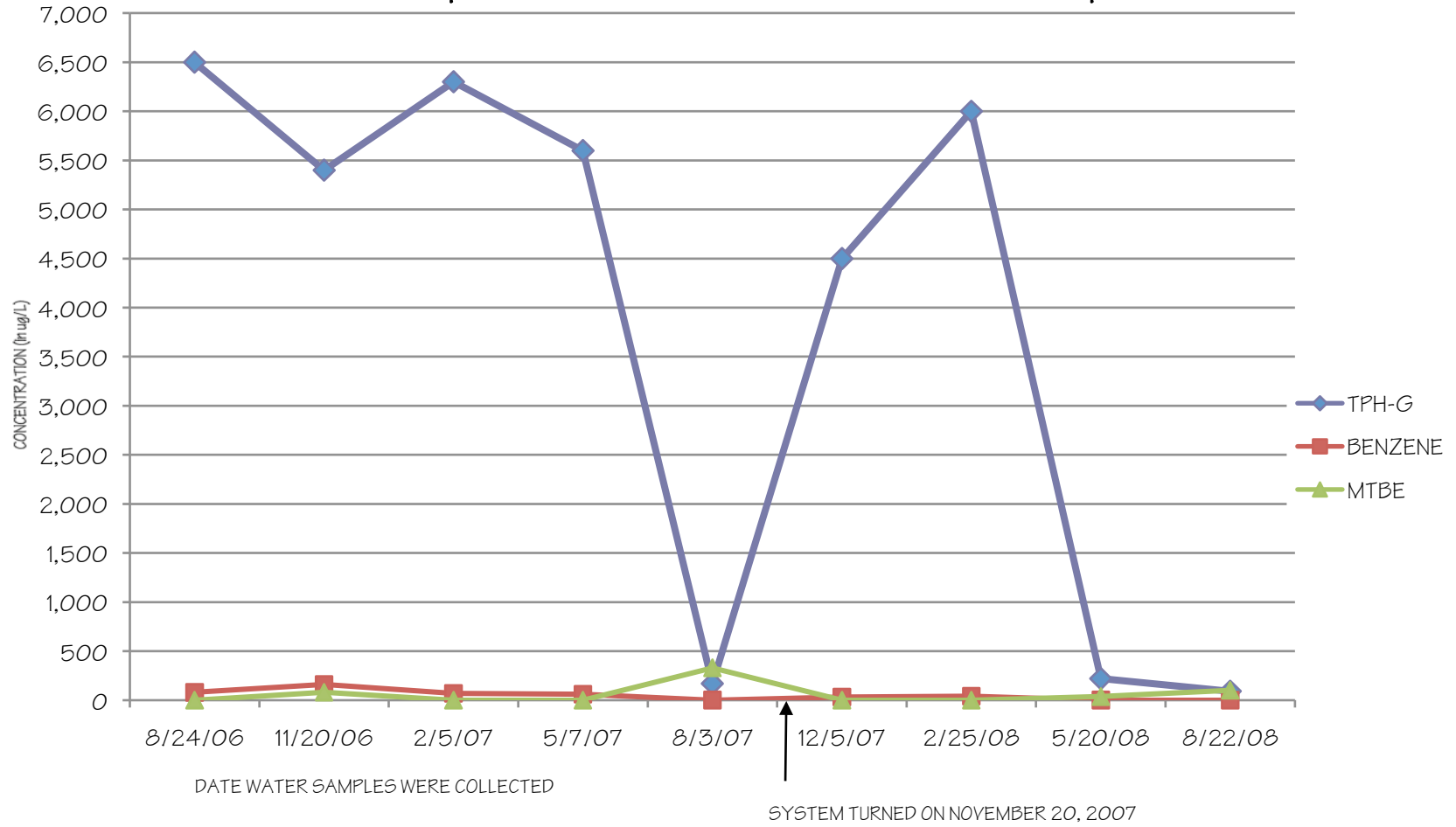
MTBE Concentrations in Monitoring Well MW-3 Since Ozone-Sparging Remediation System Start-Up



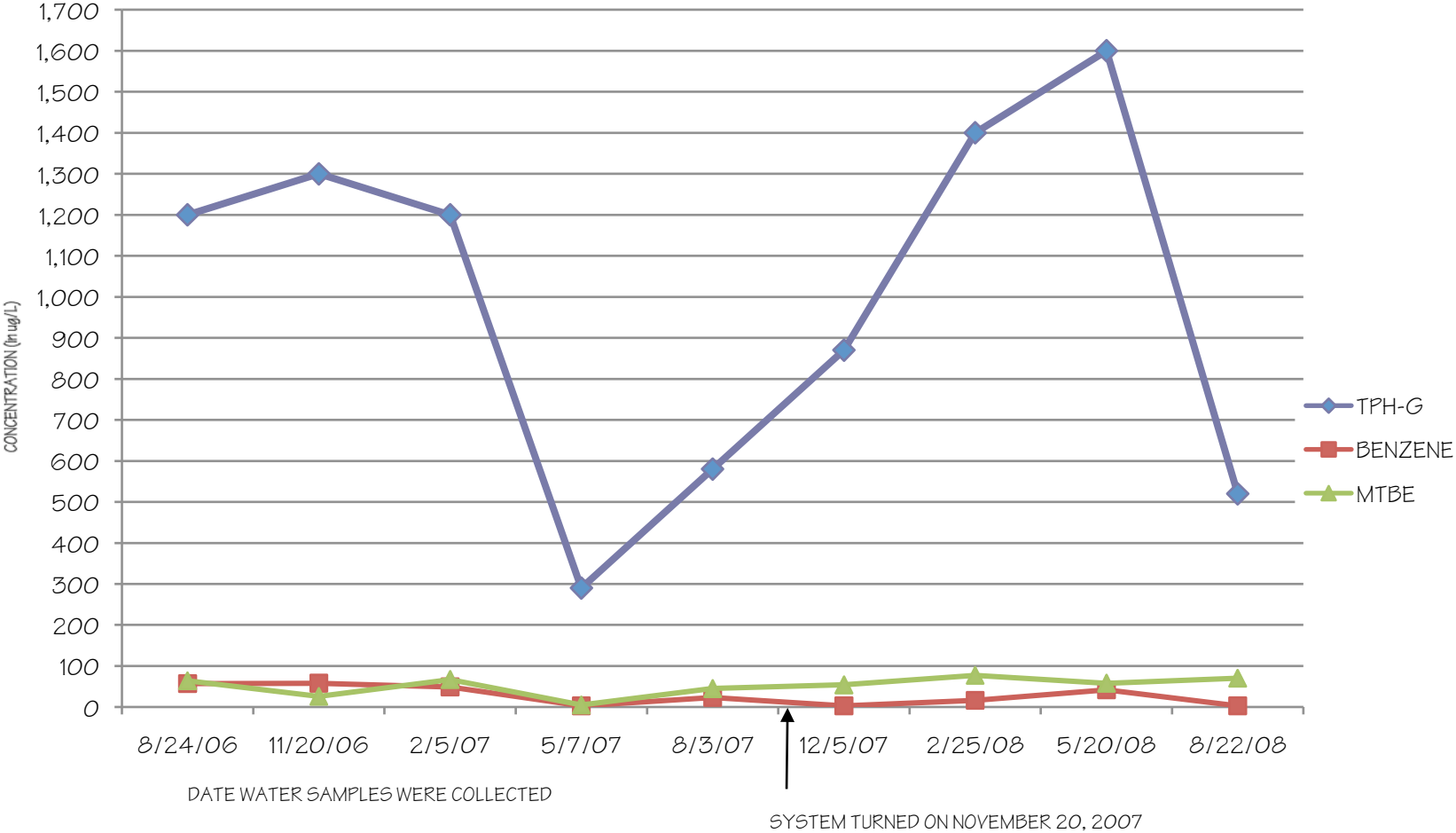
MTBE Concentrations in Monitoring Well MW-4 Since Ozone-Sparging Remediation System Start-Up



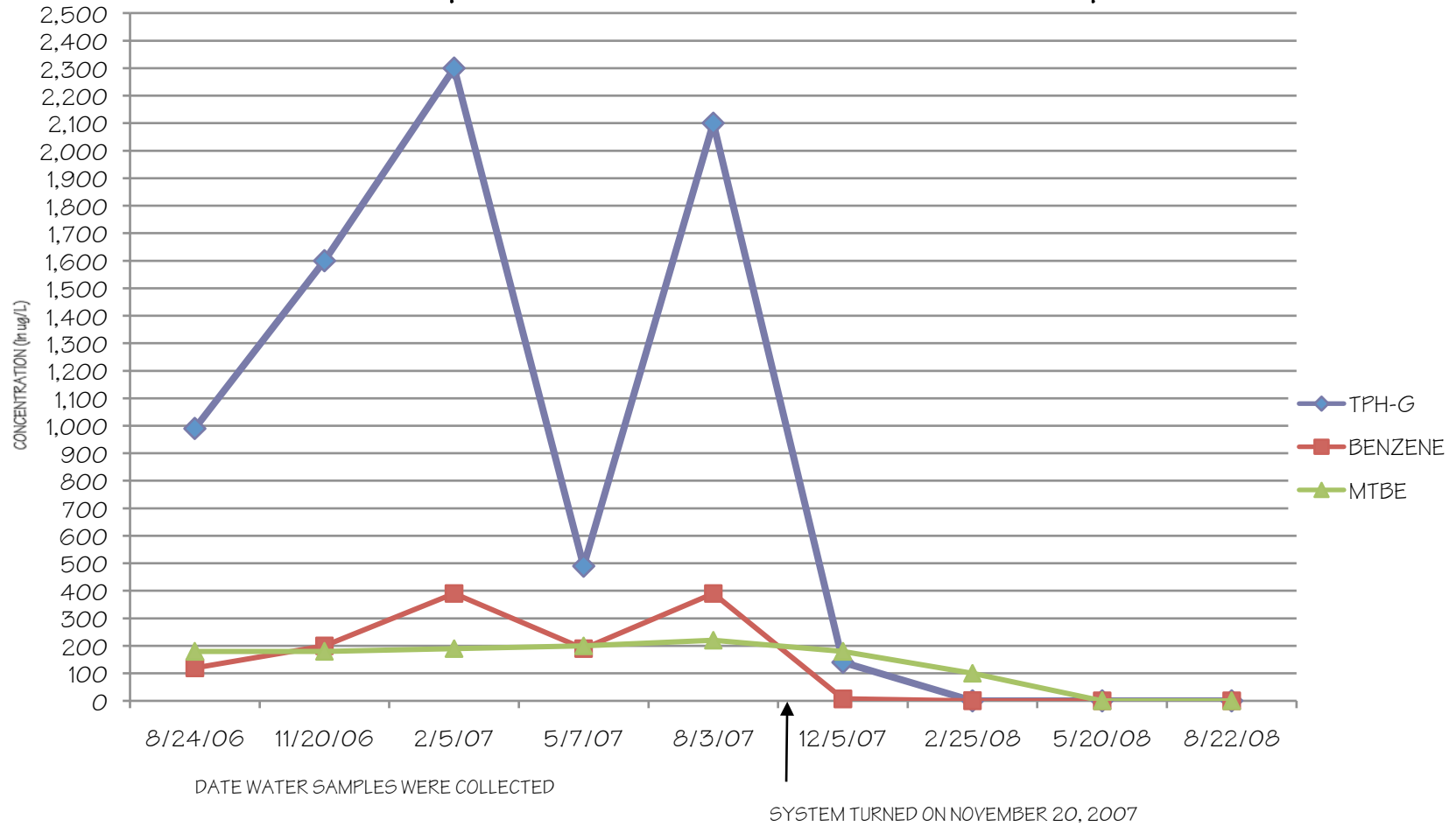
MTBE Concentrations in Monitoring Well MW-5R Since Ozone-Sparging Remediation System Start-Up



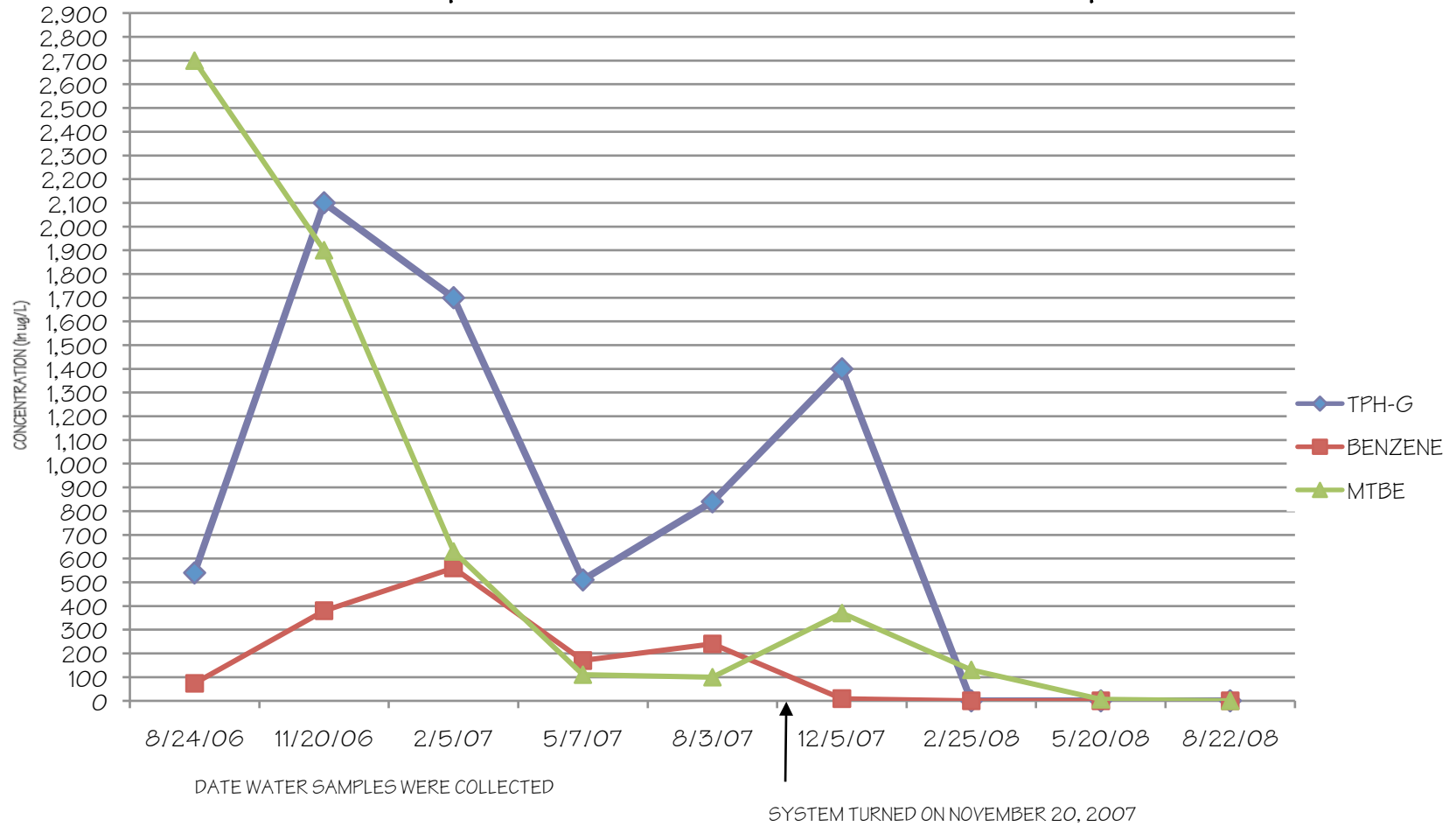
MTBE Concentrations in Monitoring Well MW-6 Since Ozone-Sparging Remediation System Start-Up



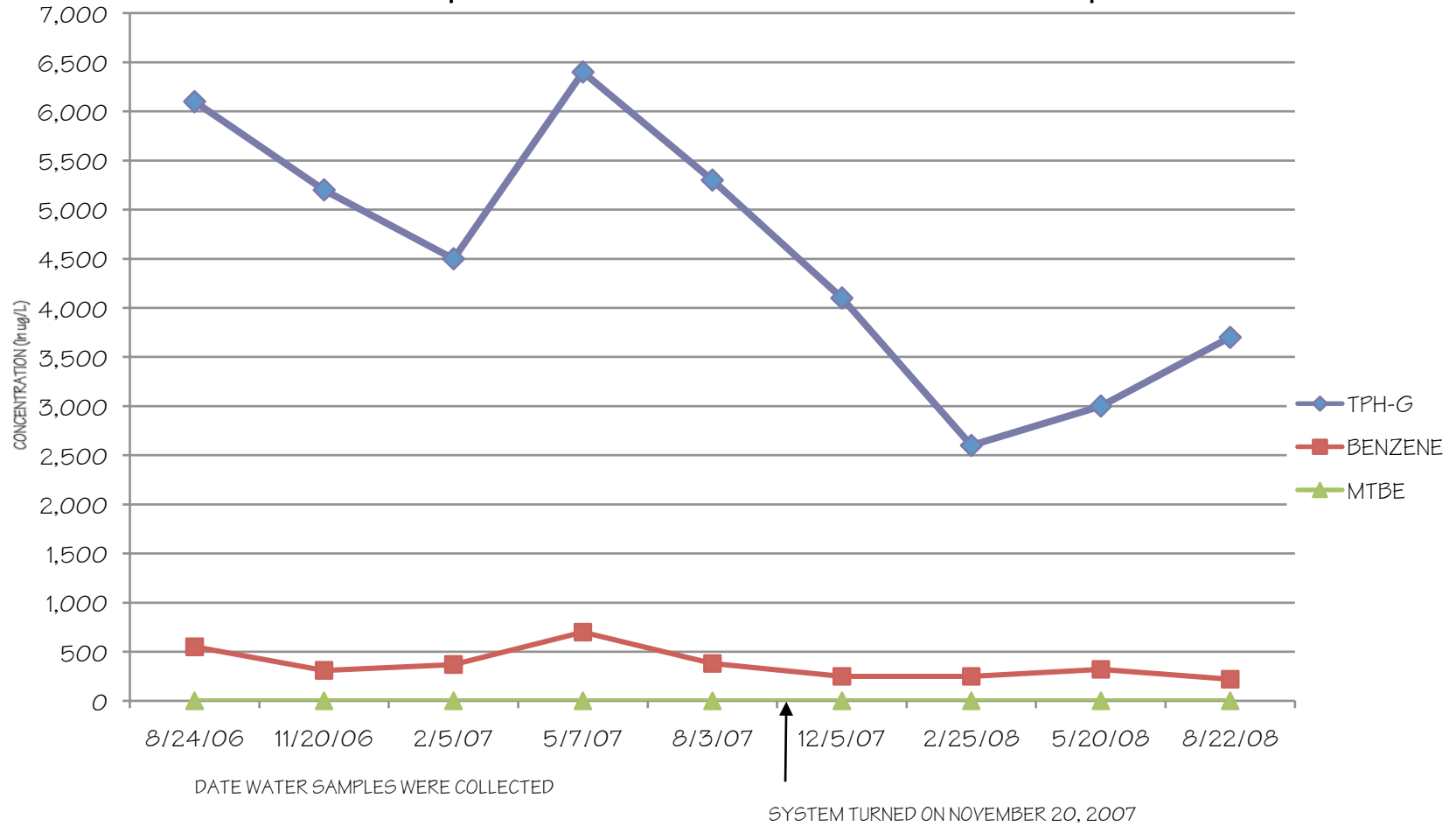
MTBE Concentrations in Monitoring Well MW-7 Since Ozone-Sparging Remediation System Start-Up



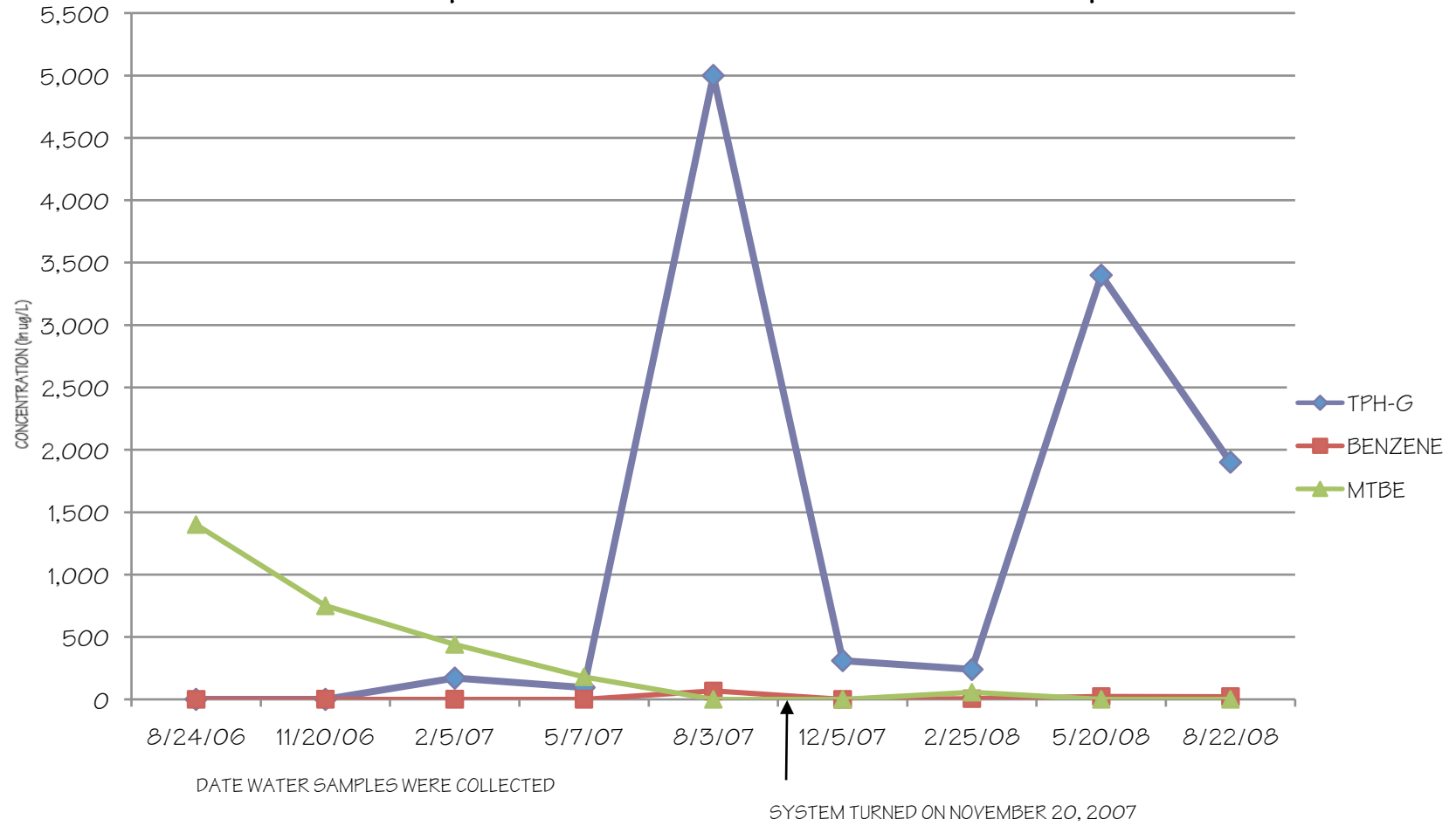
MTBE Concentrations in Monitoring Well MW-8 Since Ozone-Sparging Remediation System Start-Up



MTBE Concentrations in Monitoring Well MW-9 Since Ozone-Sparging Remediation System Start-Up



MTBE Concentrations in Monitoring Well MW-10 Since Ozone-Sparging Remediation System Start-Up





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APPENDIX A

O&M Field Forms



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
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OZONE-SPARGING REMEDIATION SYSTEM OPERATION & MAINTENANCE LOG

ALBANYHILL MINI MART

800 SAN PABLO AVENUE, ALBANY, CALIFORNIA

FIRST WEEK

DATE	INITIALS	OPERATING PRESSURE OF OZONE-SPARGING WELLS									COMMENTS
		1	2	3	4	5	6	7	8	9	
11-26-07	DA	16	22	31	24	34	32	28	32	25	VMP-1 = \emptyset OZONE / VMP-2 = \emptyset OZONE. MINI MART, BEAUTY SHOP, JEWELER & UNITED TRANS = \emptyset OZONE
11-27-07	DA	15	21	30	24	32	30	27	30	21	VMP-1&2 AND ALL BUILDINGS = \emptyset OZONE. ALL OK
11-28-07	DA	14	19	27	22	30	27	24	29	21	ALL BLDG'S + VMP'S = \emptyset OZONE. SYSTEM OK
11-29-07	DA	14	18	26	22	30	25	22	28	20	AS ABOVE. ALL OK. NO OZONE LEAKS
11-30-07	DA	13	17	25	20	27	25	21	28	19	MINOR OZONE LEAK IN OS-9 TUBING @ MACHINE. TIGHTENED FITTING

DATE	INITIALS	OZONE-SPARGING WELL MODE - 03 OR 02									COMMENTS
		1	2	3	4	5	6	7	8	9	
11-26-07	DA	03	03	03	03	03	03	03	03	03	SYSTEM OK
11-27-07	DA	03	03	03	03	03	03	03	03	03	SYSTEM OK
11-28-07	DA	03	03	03	03	03	03	03	03	03	1/4 TURN ON NEEDLE VALVE FOR AIR FLOW ADJUST.
11-29-07	DA	03	03	03	03	03	03	03	03	03	SYSTEM OK
11-30-07	DA	03	03	03	03	03	03	03	03	03	SYSTEM OK, REPAIRED OS-9 FITTING



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OZONE-SPARGING REMEDIATION SYSTEM OPERATION & MAINTENANCE LOG

ALBANYHILL MINI MART

800 SAN PABLO AVENUE, ALBANY, CALIFORNIA

DATE	INITIALS	OPERATING PRESSURE OF OZONE-SPARGING WELLS									COMMENTS
		1	2	3	4	5	6	7	8	9	
1-4-08	DA	16	21	38	20	36	31	30	26	36	INDOOR AIR ✓ @ UNITED TRANS & ON SITE BUILDINGS. ALL OK
1-9-08	DA	15	22	39	20	34	30	29	26	37	ADJUSTED NEEDLE VALUE ON SYSTEM FLOW METER.
1-14-08	DA	14	23	39	18	33	30	28	27	39	COLLECTED WATER SAMPLES FROM MW-2, 3, 8 + 9. COLLECTED VMPI + VMP-2 AIR GAS SAMPLES.
1-23-08	DA	14	24	38	17	30	27	31	25	39	0 OZONE IN ALL INDOOR READINGS.

DATE	INITIALS	OZONE-SPARGING WELL MODE - O3 OR O2									COMMENTS
		1	2	3	4	5	6	7	8	9	
1-4-08	DA	O3	O3	O2	O3	O2	O3	O3	O3	O3	OZONE ALARMS IN OS-3 & OS-5. NO OZONE IDENTIFIED IN WELL BOXES OR MANIFOLD. INCREASED RANGE ON SYSTEM OZONE DETECTOR.
1-9-08	DA	O3	O3	O2	O3	O3	O3	O3	O3	O3	OS-3 OZONE ALARM ON 1-7-08. ENABLED OZONE.
1-14-08	DA	O3	O3	O2	O3	O3	O3	O3	O3	O3	NO OZONE ALARMS!
1-23-08	DA	O3	O2	O3	O3	O2	O3	O3	O2	O3	OZONE ALARMS ON RANDOM WELLS. ENABLED OZONE CALLED H2O. SENDING NEW SENSOR.



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OZONE-SPARGING REMEDIATION SYSTEM OPERATION & MAINTENANCE LOG

ALBANYHILL MINI MART
 800 SAN PABLO AVENUE, ALBANY, CALIFORNIA

DATE	INITIALS	OPERATING PRESSURE OF OZONE-SPARGING WELLS									COMMENTS
		1	2	3	4	5	6	7	8	9	
3-6-08	DA	10	21	45	8	30	34	35	11	45	High pressure on OS-3 + OS-9 on 3-4-08. Reset themselves. DISABLED OS-3 + OS-9 to dose wells w/acid. 0 ozone.
3-10-08	DA	10	20	38	8	31	32	35	10	40	ENABLES OS-3 + OS-9. CHANGED FLUXER ELEMENT
3-18-08	DA	11	21	37	8	32	31	34	10	40	ALL OK. Change 0.0 ozone indoors
3-28-08	DA	10	20	39	7	30	33	33	11	41	ALL OK 0.0 O ₃ IN ALL INDOOR SPACES.

DATE	INITIALS	OZONE-SPARGING WELL MODE - O3 OR O2									COMMENTS
		1	2	3	4	5	6	7	8	9	
3-6-08	DA	O ₃	O ₃	O ₂	O ₂	O ₃	O ₃	O ₂	O ₃	O ₃	MULTIPLE OZONE ALARMS. SENSOR NOT STRONG ENOUGH. ENABLED WELLS BACK TO O ₃
3-10-08	DA	O ₃	O ₃	O ₃	O ₃	O ₃	O ₃	O ₃	O ₃	O ₃	NO ALARMS.
3-18-08	DA	O ₃	O ₃	O ₃	O ₃	O ₃	O ₃	O ₃	O ₃	O ₃	NO ALARMS
3-28-08	DA	O ₃	O ₃	O ₃	O ₃	O ₂	O ₃	O ₃	O ₃	O ₃	OZONE IN OS-5. MINOR LEAK IN WELL SEAL. POURED CEMENT IN WELL BOX DISABLED OS-5.



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DATE	INITIALS	OPERATING PRESSURE OF OZONE-SPARGING WELLS									COMMENTS
		1	2	3	4	5	6	7	8	9	
4-4-08	DA	11	17	42	7	31	38	34	12	44	ALL OK OZONE IN U.T. & SHOPS
4-11-08	DA	12	18	44	7	33	38	35	11	45	PRESSURES OK
4-18-08	DA	12	19	44	7	—	39	34	11	47	OS-5 OFF DUE TO LEAK.
4-25-08	DA	11	20	45	7	—	40	33	10	48	OS-5 OFF DUE TO LEAK.

DATE	INITIALS	OZONE-SPARGING WELL MODE - O3 OR O2									COMMENTS
		1	2	3	4	5	6	7	8	9	
4-4-08	DA	O2	O3	O2	O3	O2	O3	O3	O2	O3	MULTIPLE OZONE ALARMS TRIPPED TO H2O. ENABLED WELLS BACK TO O3.
4-11-08	DA	O2	O3	O3	O2	O3	O2	O3	O3	O2	MULTIPLE ALARMS. CHECKED WELL HEADS. LEAK IN SEAL OF OS-5. TURNED OFF OS-5
4-18-08	DA	O3	O2	O3	O3	—	O2	O3	O3	O2	STILL OZONE IN BOX. POSSIBLY OS-3 CONTRIBUTING.
4-25-08	DA	O2	O3	O3	O2	—	O3	O3	O3	O2	CAUSE H2O SCHEDULED SITE VISIT. MULTIPLE O3 ALARMS



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DATE	INITIALS	OPERATING PRESSURE OF OZONE-SPARGING WELLS									COMMENTS
		1	2	3	4	5	6	7	8	9	
5-2-08	DA	10	20	45	7	-	42	33	10	51	OS-5 OFF DUE TO LEAK.
5-9-08	DA	10	21	45	6	-	41	30	11	51	HIGH PRESSURE ON OS-6 + OS-9 ON 5-8-08.
5-19-08	DA	10	20	-	7	-	43	31	11	52	OS-3 + OS-5 OFF DUE TO SEAL LEAK IN OS-5 0 OZONE IN BUILDINGS.
5-28-08	DA	10	21	-	7	-	44	30	12	54	HIGH PRESSURE ON OS-9 5-26 + 5-27, H ₂ O ON SITE FOR TUNE UP + DIAGNOSE.

DATE	INITIALS	OZONE-SPARGING WELL MODE - O3 OR O2									COMMENTS
		1	2	3	4	5	6	7	8	9	
5-2-08	DA	O ₃	O ₂	O ₃	O ₃	-	O ₂	O ₃	O ₂	O ₃	MULTIPLE ALARMS. NO LEAKS FOUND. ENABLED WELLS BACK TO O ₃
5-9-08	DA	O ₃	O ₂	O ₂	O ₃	-	O ₃	O ₂	O ₃	O ₃	ENABLED BACK TO O ₃ . WHEN OS-3 ON, PICKED UP O ₃ IN OS-5 WELL BOX. TURNED OS-3 OFF
5-19-08	DA	O ₂	O ₃	-	O ₂	-	O ₃	O ₂	O ₃	O ₃	MULTIPLE ALARMS O ₃ . LEAK IN OS-5 SEAL NOT PROBLEM. ENABLED WELLS BACK TO O ₃
5-28-08	DA	O ₃	O ₂	-	O ₃	-	O ₃	O ₂	O ₃	O ₃	ENABLED WELLS BACK TO O ₃ . H ₂ O FOUND NO LEAKS. RECOMMENDED REPLACEMENT OF OS-5 AND 1-10 PPM O ₃ SENSOR.

AND 1-10 PPM O₃ SENSOR.



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DATE	INITIALS	OPERATING PRESSURE OF OZONE-SPARGING WELLS									COMMENTS
		1	2	3	4	5	6	7	8	9	
6-6-08	DA	11	21	40	7	-	45	31	13	50	TURNED OS-3 BACK ON. CAPPED SECONDARY PIPE IN OS-5 WELLS BOX. OS-5 STILL OFF. 0 O3 IN BUILDINGS
6-12-08	DA	10	22	42	7	-	45	30	12	54	HIGH PRESSURE ON OS-9 ON 6-10-08. DROUSED WELL W/ ACID. SHUT WELL OFF.
6-20-08	DA	11	21	43	7	-	46	30	12	40	ALL OK. TURNED OS-9 BACK ON. 0 O3 IN BUILDINGS.
6-30-08	MA	12	22	44	6	-	47	31	11	40	ALL OK 0 O3 IN BUILDINGS
DATE	INITIALS	OZONE-SPARGING WELL MODE - O3 OR O2									COMMENTS
		1	2	3	4	5	6	7	8	9	
6-6-08	DA	O3	O3	O3	O2	-	O2	O3	O3	O2	INSTALLED NEW 1-10 ppm O3 SENSOR. ENABLED OS-6 & OS-9 BACK TO O3. SMALL OZONE LEAK IN OS-4. ORDERED NEW WELL HEAD CONNECTION.
6-12-08	DA	O3	O3	O3	O3	-	O3	O3	O3	O3	NO O3 ALARMS! NEW O3 SENSOR WORKING.
6-20-08	DA	O3	O3	O3	O3	-	O3	O3	O3	O3	NO ALARMS!
6-30-08	DA	O3	O3	O3	O3	-	O3	O3	O3	O3	ALL OK.



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DATE	INITIALS	OPERATING PRESSURE OF OZONE-SPARGING WELLS									COMMENTS
		1	2	3	4	5	6	7	8	9	
7-9-08	DA	9	22	44	6	-	48	30	10	42	ALL OK. '0' O ₃ IN BLDGS.
7-17-08	DA	10	20	45	6	-	48	31	11	44	HIGH PRESSURE ON OS-3 + OS-6 ON 7-14-08.
7-25-08	DA	11	18	46	6	-	45	30	12	46	DOUSED OS-3 + OS-6 WITH AIR. TURNED 3+6 OFF '0' O ₃ IN BLDGS.
7-31-08	DA	10	17	41	7	-	38	31	11	46	'0' O ₃ IN BLDGS. NO MATHY, TURNED OS-3 + OS-6 ON.
DATE	INITIALS	OZONE-SPARGING WELL MODE - O3 OR O2									COMMENTS
		1	2	3	4	5	6	7	8	9	
7-9-08	DA	O ₃	O ₃	O ₃	O ₃	-	O ₃	O ₃	O ₃	O ₃	ALL OK.
7-17-08	DA	O ₃	O ₃	O ₃	O ₃	-	O ₃	O ₃	O ₃	O ₃	ALL OK.
7-25-08	DA	O ₃	O ₃	O ₃	O ₃	-	O ₃	O ₃	O ₃	O ₃	ALL OK. CHANGED COMPRESSOR FILTERS.
7-31-08	DA	O ₃	O ₃	O ₃	O ₃	-	O ₃	O ₃	O ₃	O ₃	ALL OK.



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DATE	INITIALS	OPERATING PRESSURE OF OZONE-SPARGING WELLS									COMMENTS
		1	2	3	4	5	6	7	8	9	
8-6-08	DA	10	17	40	6	-	39	31	12	46	'0' O ₃ IN BLDGS. HIGH PRESSURE ON OS-9 DOUSED W/ ACID. TURNED OS-9 OFF.
8-15-08	DA	11	16	42	6	-	40	30	11	40	ALL OK. '0' O ₃ IN BLDGS + UMPS. TURNED OS-9 BACK ON.
8-22-08	DA	11	15	40	6	-	40	31	11	41	NO ALARMS. SAMPLED MW'S. '0' O ₃ IN BLDGS
8-27-08	DA	12	15	41	6	-	41	30	12	42	NO ALARMS. OS-5 REINSTALL. '0' O ₃ IN BLDGS.

DATE	INITIALS	OZONE-SPARGING WELL MODE - O3 OR O2									COMMENTS
		1	2	3	4	5	6	7	8	9	
8-6-08	DA	O ₃	O ₃	O ₃	O ₃	-	O ₃	O ₃	O ₃	O ₃	NO ALARMS.
8-15-08	DA	O ₃	O ₃	O ₃	O ₃	-	O ₃	O ₃	O ₃	O ₃	NO ALARMS
8-22-08	DA	O ₃	O ₃	O ₃	O ₃	-	O ₃	O ₃	O ₃	O ₃	NO ALARMS.
8-27-08	DA	O ₃	O ₃	O ₃	O ₃	-	O ₃	O ₃	O ₃	O ₃	ALL OK