



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

December 28, 2009

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

Alameda County

JAN 05 2010

Environmental Health

SUBJECT: 12-MONTH REMEDIATION EFFECTIVENESS REPORT  
RO0000262  
Albany Hill Mini Mart  
800 San Pablo Avenue  
Albany, California

Dear Mr. Wickham:

Aqua Science Engineers, Inc. (ASE) is the environmental consultant for our client, Dr. Joginder Sikand, the responsible party of the subject site. Since November 20, 2007, ASE has been operating an ozone-sparging remediation system.

## SYSTEM OPERATION

For the last 12 months, ASE personnel has maintained the remediation equipment in proper operating form, which has resulted in the system operating no less than a 98% of the time. Down time has occurred for parts replacement and routine system upgrades and maintenance. The system has had its oxygen concentrator replaced, as well as having the compressor serviced as prescribed by the manufacturer.

Since the start-up of the remediation system, the ten (10) groundwater monitoring wells have been sampled 8 times. The analytical results for groundwater sampling events are tabulated in Table One, attached. Graphs showing the total petroleum hydrocarbons as gasoline (TPH-G), benzene and MTBE concentrations in each of the monitoring wells since August 2006 are in the Graphs Section of this report. The vertical axis of the graphs varies from well to well.

## FINDINGS

- For the most part, all of the petroleum hydrocarbons and oxygenates have shown a decreasing trend in monitoring well MW-1 since the start-up of the remediation equipment. Currently the TPH-G concentration in this well is 75 parts per billion (ppb), the benzene concentration is 2.8 ppb, and the MTBE concentration is 30 ppb. All of these current concentrations represent a one to two order-of-magnitude reduction since November 2007. However, the current concentrations of benzene and MTBE continue to exceed the RWQCB ESLs for those compounds.



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- All of the petroleum hydrocarbons and oxygenates have shown a decreasing trend in monitoring well MW-2 since the start-up of the remediation equipment. Currently, and for the past 12 months, the TPH-G, benzene, and MTBE concentrations in this well are below the laboratory detection limit.
- For the most part, all of the petroleum hydrocarbons and oxygenates have shown a decreasing trend in monitoring well MW-3 since the start-up of the remediation equipment. The MTBE concentration had been slightly sporadic, going up and down, in the months just after the remediation began. Currently, the TPH-G, benzene, and MTBE concentrations in this well are below the laboratory detection limit. The current MTBE concentration represents a two order-of-magnitude reduction since November 2007.
- For the most part, all of the petroleum hydrocarbons and oxygenates have shown a decreasing trend in monitoring well MW-4 since the start-up of the remediation equipment. Currently the TPH-G concentration in this well is 280 ppb, the benzene concentration is 46 ppb, and the MTBE concentration is 12 ppb. All of these current concentrations represent a one order-of-magnitude reduction since November 2007. However, the current concentrations of TPH-G, benzene, and MTBE continue to exceed the RWQCB ESLs for those compounds.
- For the most part, all of the petroleum hydrocarbons and oxygenates have shown a decreasing trend in monitoring well MW-5R since the start-up of the remediation equipment, with an anomalous spike in June 2009. Currently the TPH-G concentration in this well is 55 ppb, the benzene concentration is below the laboratory detection limit, and the MTBE concentration is 13 ppb. All of these current concentrations represent a one to two order-of-magnitude reduction since November 2007. However, the current concentration of MTBE continues to exceed the RWQCB ESL.
- For the most part, all of the petroleum hydrocarbons and oxygenates have shown a decreasing trend in monitoring well MW-6 since the start-up of the remediation equipment. The TPH-G concentration remains sporadic, going up and down, in the months since the remediation began. Currently the TPH-G concentration in this well is 750 ppb, the benzene concentration is below the laboratory detection limit, and the MTBE concentration is 4.4 ppb. All of these current concentrations represent a one to two order-of-magnitude reduction since November 2007. However, the current concentration of TPH-G continues to exceed the RWQCB ESL.
- All of the petroleum hydrocarbons and oxygenates have shown a decreasing trend in monitoring well MW-7 since the start-up of the remediation equipment. Currently, and for the past 16 months, the TPH-G, benzene, and MTBE concentrations in this well are below the laboratory detection limit.



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- All of the petroleum hydrocarbons and oxygenates have shown a decreasing trend in monitoring well MW-8 since the start-up of the remediation equipment. Currently, and for the past 16 months, the TPH-G, benzene, and MTBE concentrations in this well are below the laboratory detection limit.
- For the most part, all of the petroleum hydrocarbons and oxygenates have remained similar in monitoring well MW-9 since the start-up of the remediation equipment. The TPH-G and benzene concentrations remain sporadic, going up and down, in the months since the remediation began. Currently the TPH-G concentration in this well is 5,200 ppb, the benzene concentration is 63 ppb, and the MTBE concentration is below the laboratory detection limit. The current concentrations of TPH-G and benzene continue to exceed the RWQCB ESLs for those compounds.
- For the most part, all of the petroleum hydrocarbons and oxygenates have remained similar in monitoring well MW-10 since the start-up of the remediation equipment. The TPH-G and benzene concentrations remain sporadic, going up and down, in the months since the remediation began. Currently the TPH-G concentration in this well is 4,500 ppb, the benzene concentration is 36 ppb, and the MTBE concentration is below the laboratory detection limit. The current concentrations of TPH-G and benzene continue to exceed the RWQCB ESLs for those compounds.

The ozone sparging operation continues to be an effective means of remediating the petroleum hydrocarbon and oxygenate compounds in the groundwater on-site. We believe continued operation of the remediation system will be an effective means for further reducing the petroleum hydrocarbon and oxygenate concentrations on-site by potentially an additional order of magnitude in 2010.

#### **PROPOSED REMEDIATION STRATEGY FOR THE NEXT YEAR**

- ASE believes that the system should remain operational through December 2010.
- Groundwater sampling of the ten monitoring wells should remain on a semi-annual 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 2010. This authorization will be used to gain pre-approval of costs for reimbursement from the USTCF.



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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.  
Vice President



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

cc: Dr. Joginder Sikand, Responsible Party  
USTCF



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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	318	--	--	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	4.6	<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
	12/10/08	98	<50	18	<0.50	3.2	0.89	<0.50	<5.0	74	<0.50
	3/20/09	61	<50	1.8	<0.50	<0.50	<0.50	<0.50	<5.0	65	<0.50
	6/14/09	<50	<50	5.5	<0.50	0.63	<0.50	<0.50	<5.0	71	<0.50
12/3/09	75	<50	2.8	<0.50	<0.50	<0.50	<0.50	<5.0	30	<0.50	
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	<2.0	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	
12/10/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
3/20/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
6/14/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
12/3/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	

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 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	Ethylbenzene	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	--	--	8,200**	--
	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	2.0	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	8.8	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
	12/10/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	7.2	<0.50
	3/20/09	<50	<50	0.61	<0.50	<0.50	<0.50	<0.50	7.7	14	<0.50
	6/14/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.0	<0.50
12/3/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<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	<1.2	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	<90	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
	12/10/08	190	<50	38	0.53	2.7	1.8	<0.50	6.6	20	0.76 DIPE
3/20/09	86	<50	8.7	<0.50	1.1	3.6	<0.50	<5.0	14	0.73 DIPE	
6/14/09	160	<50	28	<0.50	1.5	1.9	<0.50	<5.0	12	0.72 DIPE	
12/3/09	280	<50	46	0.61	0.93	1.9	<0.50	<5.0	12	0.65 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	1,250*	<1	<1	28	8	--	--	<1	--
	2/14/03	1,260	610*	9	7.0	22	5	--	--	<1	--
	8/10/04	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
	12/10/08	140	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	41	<0.50
	3/20/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	8.8	<0.50
	6/4/09	4,300	<800	35	2.2	130	5.7	<0.50	<5.0	6.9	<0.50
	12/3/09	55	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	13	<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	
12/10/08	1,000	<6,000	0.53	<0.50	<0.50	<0.50	<0.50	24	21	<0.50	
3/20/09	700	<500	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	2.9	<0.50	
6/4/09	160	<1,500	<0.50	<0.50	<0.50	<0.50	<0.50	10	18	<0.50	
12/3/09	750	<1,500	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	4.4	<0.50	



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 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-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	
	12/17/04	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	
	10/17/05	2,600	<800	190	4.7	91	200	<0.73	8.0J	310	<0.50	
	12/17/05					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	0.51 DIPE	
	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	
	12/10/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
	3/20/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
	6/14/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
	12/3/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
	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
		12/17/04	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
10/17/05		<700	200	85	<7.0	9.3	8.3	23	<40	4,400	<7.0	
12/17/05		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	<5.0	130	<0.50	
5/20/08		<50	<50	<0.50	<0.50	<0.50	<0.50	<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	
12/10/08		<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
3/20/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50		
6/14/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50		
12/3/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50		

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 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-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	<5.0	<5.0	<5.0
	12/7/04	13,000	<1,500	950	580	480	2,900	<5.0	<5.0	<5.0	<5.0
	4/18/05	9,600	<1,000	620	180	260	1,400	<2.5	<2.5	<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
12/10/08	4,100	<300	240	80	250	840	<0.50	<5.0	<0.50	<0.50	
3/20/09	1,800	<200	170	22	81	250	<0.50	<5.0	<0.50	<0.50	
6/14/09	2,600	<200	260	35	110	410	<0.50	<5.0	<0.50	<0.50	
12/3/09	5,200	<300	260	63	320	970	<0.50	<5.0	<0.50	<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
	12/10/08	3,500	<500	40	2.0	190	7.8	<0.50	<5.0	<0.50	<0.50
3/20/09	4,100	<600	40	1.7	150	5.8	<0.50	5.9	<0.50	<0.50	
6/14/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	34	<0.50	<0.50	
12/3/09	4,500	<800	36	2.5	140	4.3	<0.50	<5.0	<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.

NE indicates that no ESL has been established for this compound.

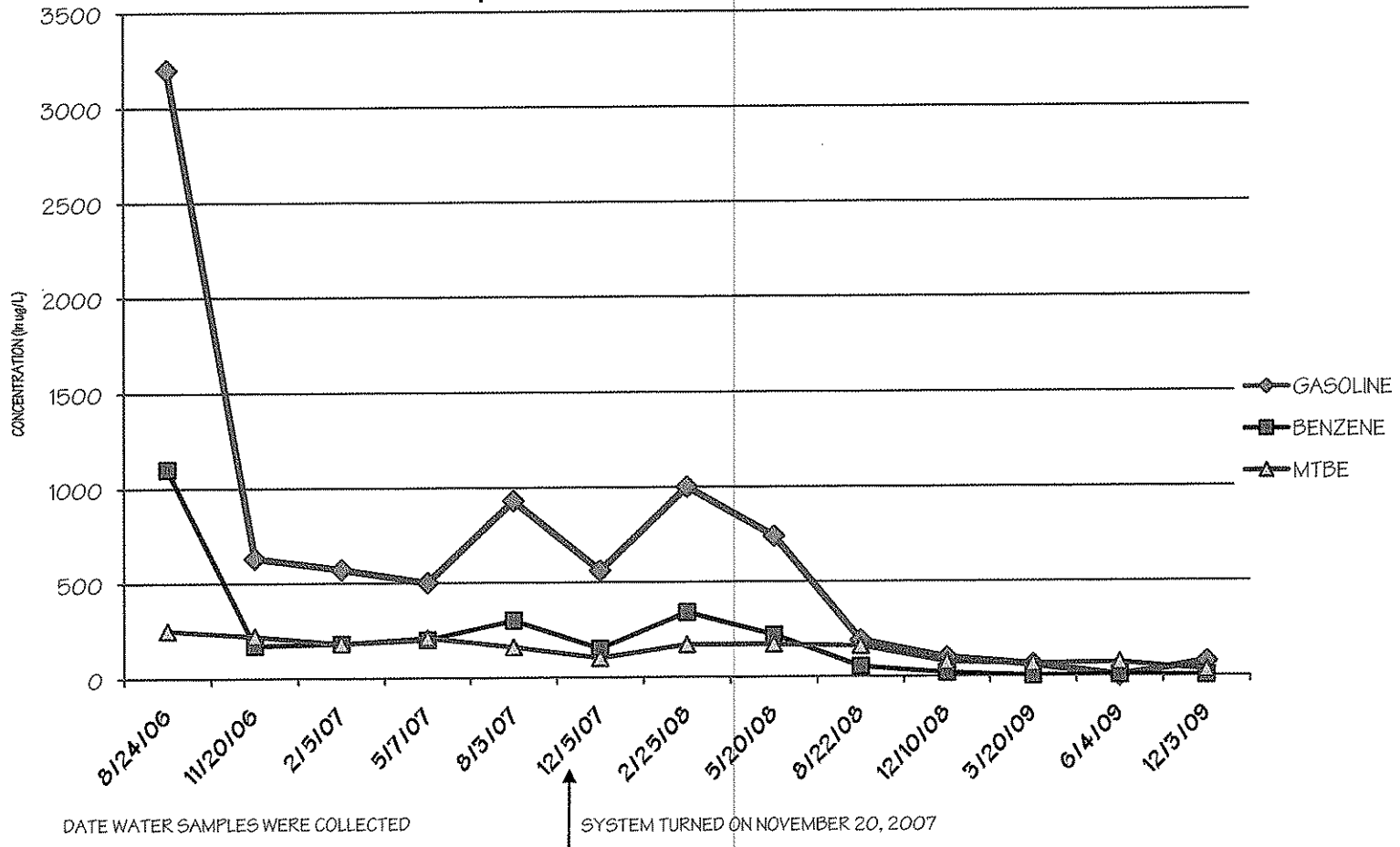


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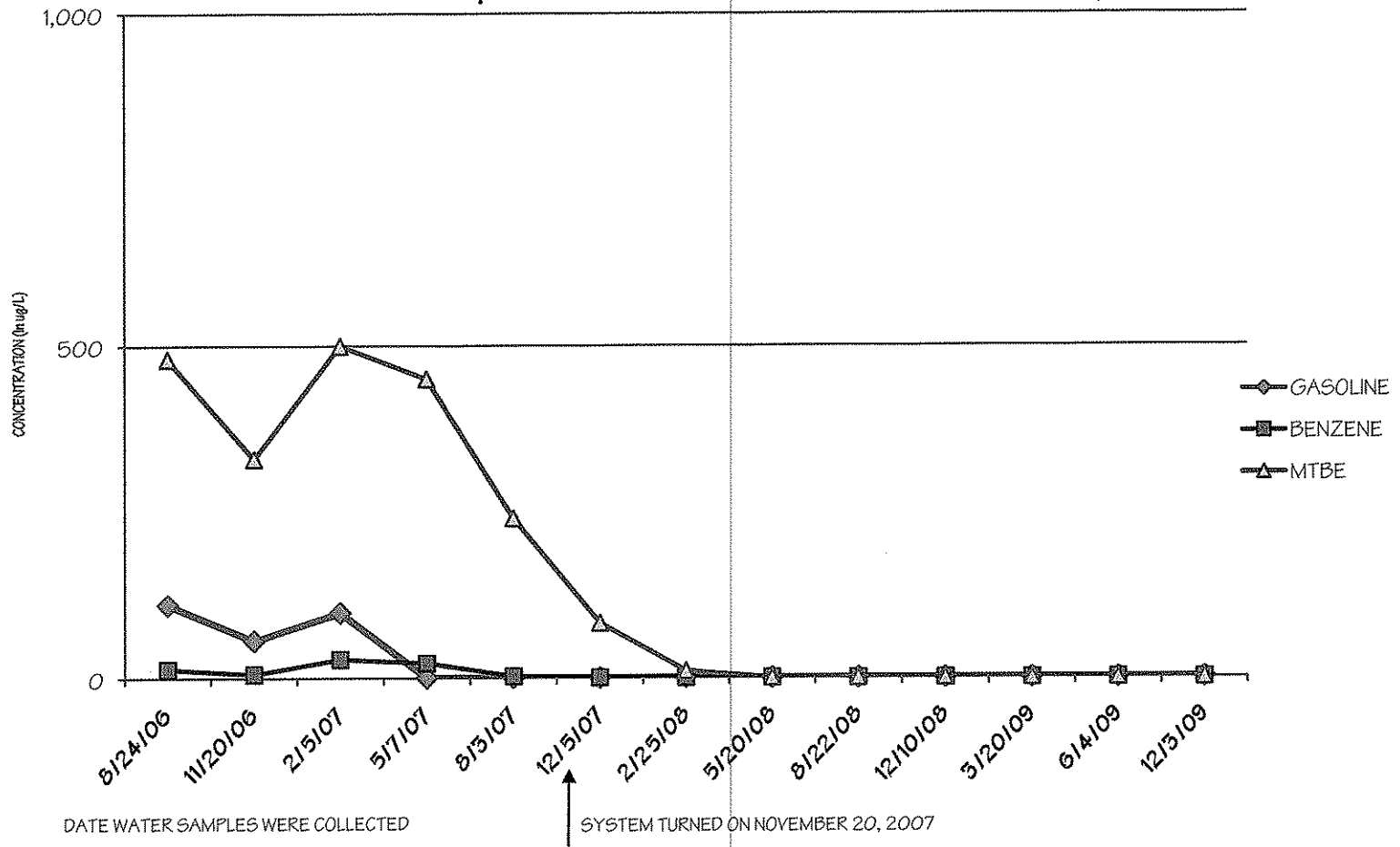
## GRAPHS

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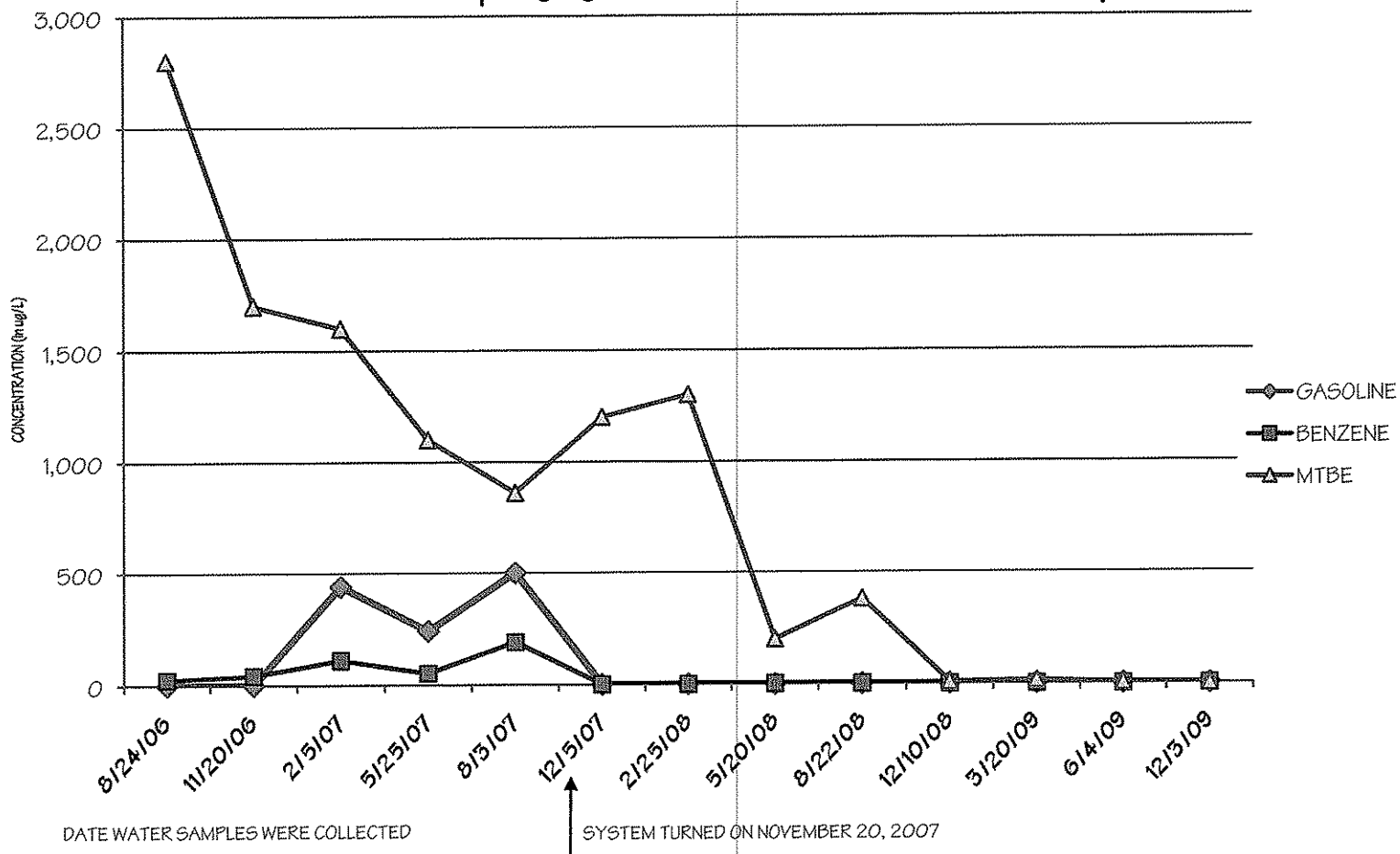
### TPH-G, Benzene, & MTBE Concentrations in Monitoring Well MW-1 Since Ozone-Sparging Remediation System Start-Up



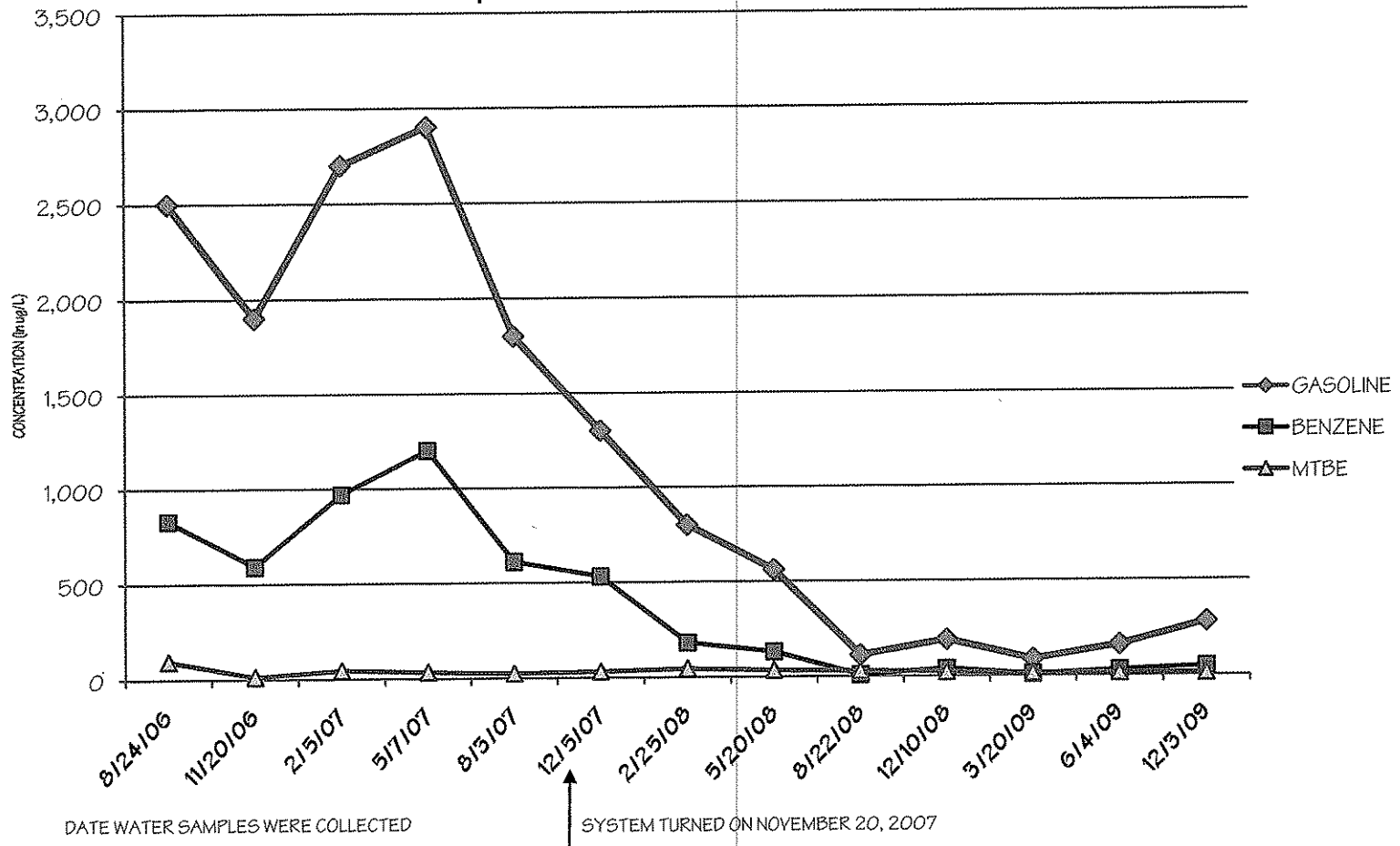
### TPH-G, Benzene, & MTBE Concentrations in Monitoring Well MW-2 Since Ozone-Sparging Remediation System Start-Up



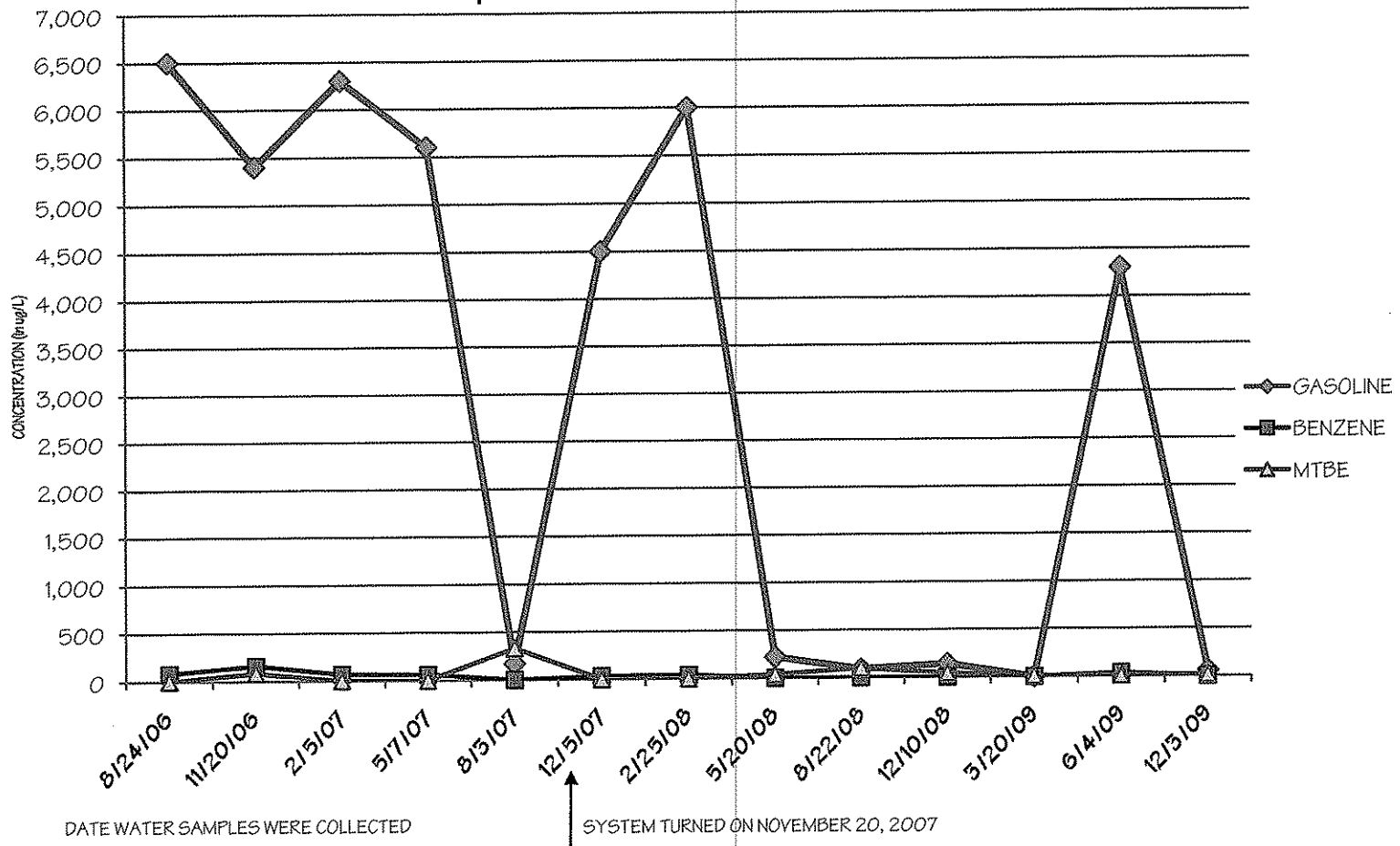
### TPH-G, Benzene, & MTBE Concentrations in Monitoring Well MW-3 Since Ozone-Sparging Remediation System Start-Up



### TPH-G, Benzene, & MTBE Concentrations in Monitoring Well MW-4 Since Ozone-Sparging Remediation System Start-Up

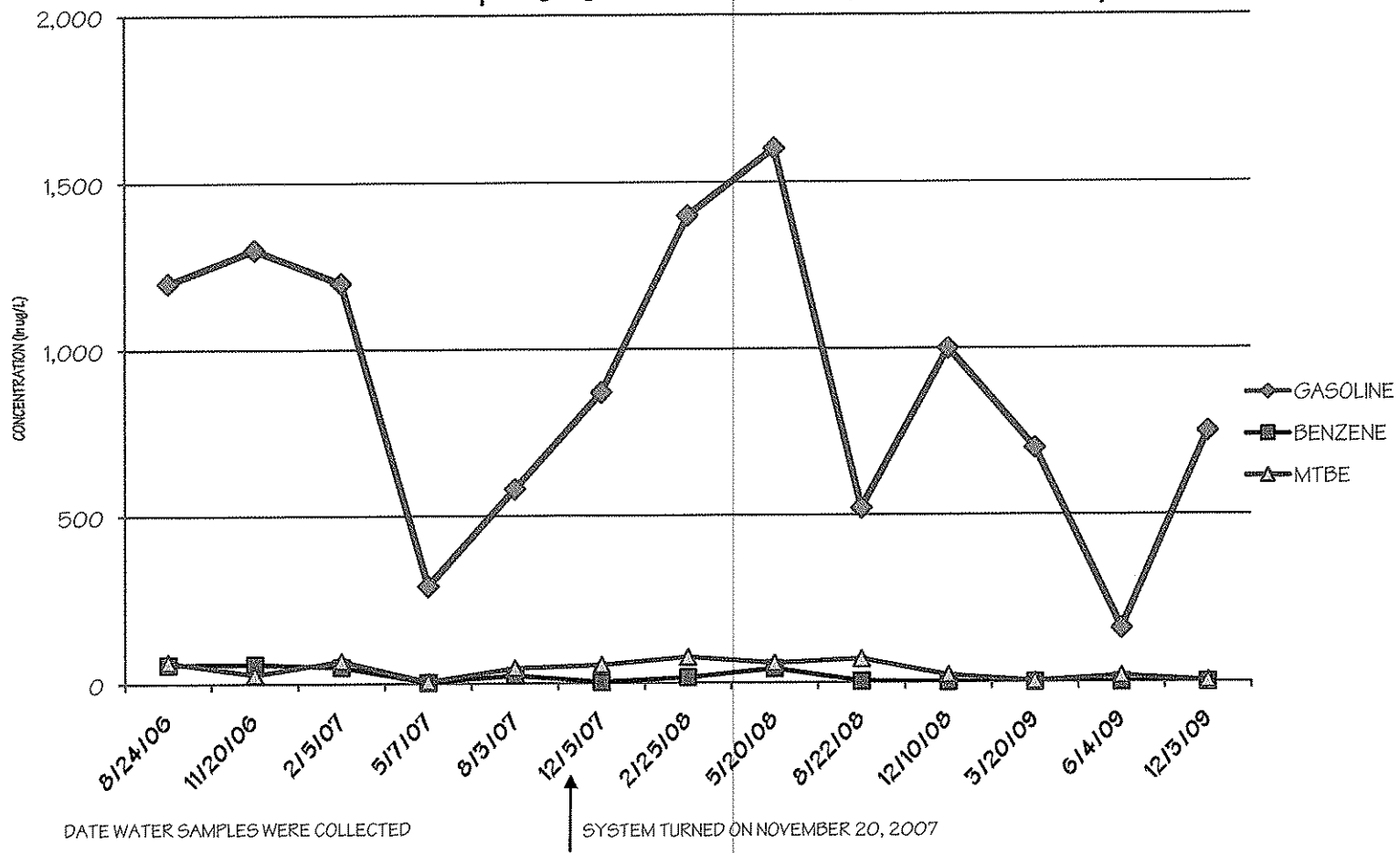


### TPH-G, Benzene, & MTBE Concentrations in Monitoring Well MW-5R Since Ozone-Sparging Remediation System Start-Up

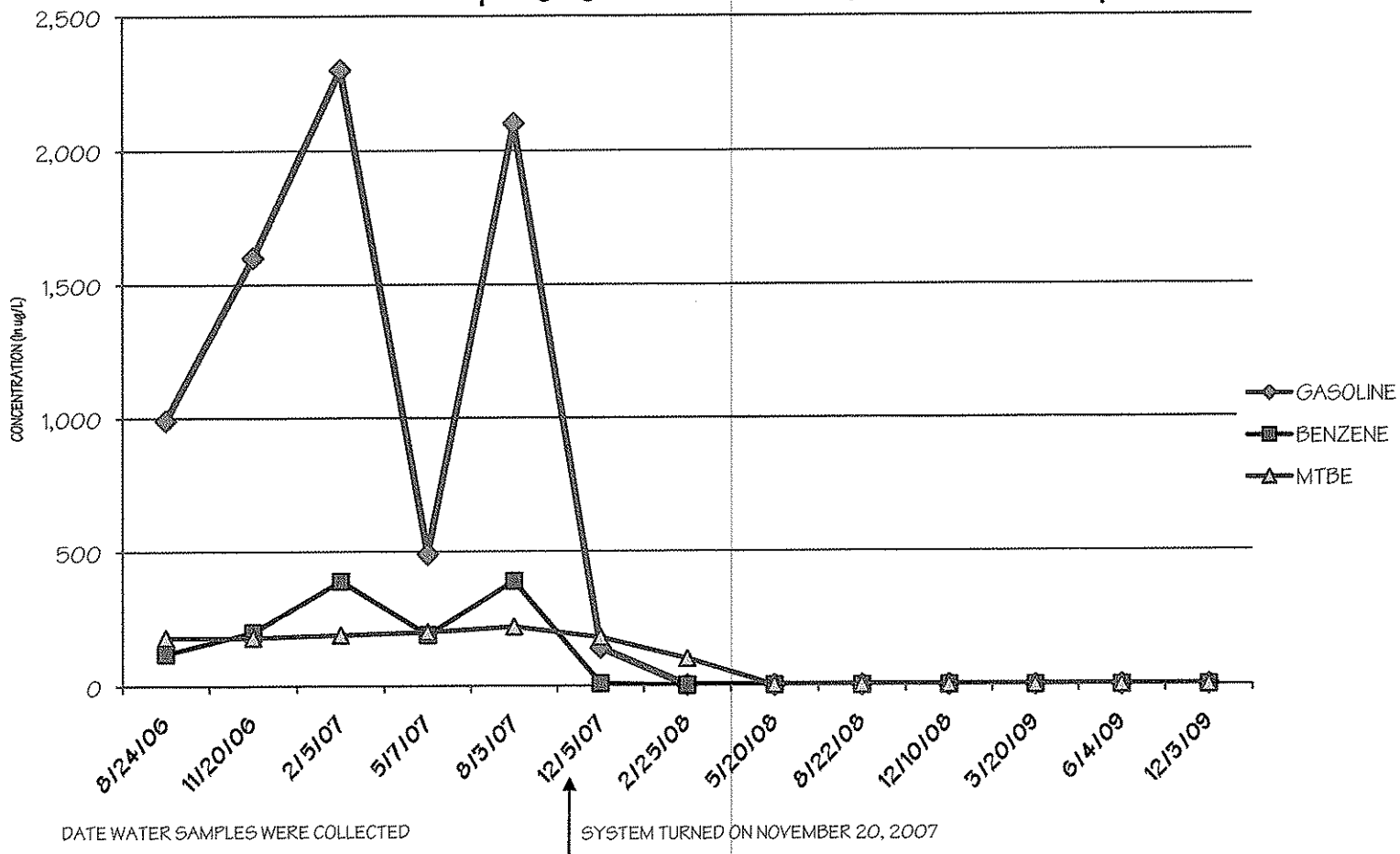




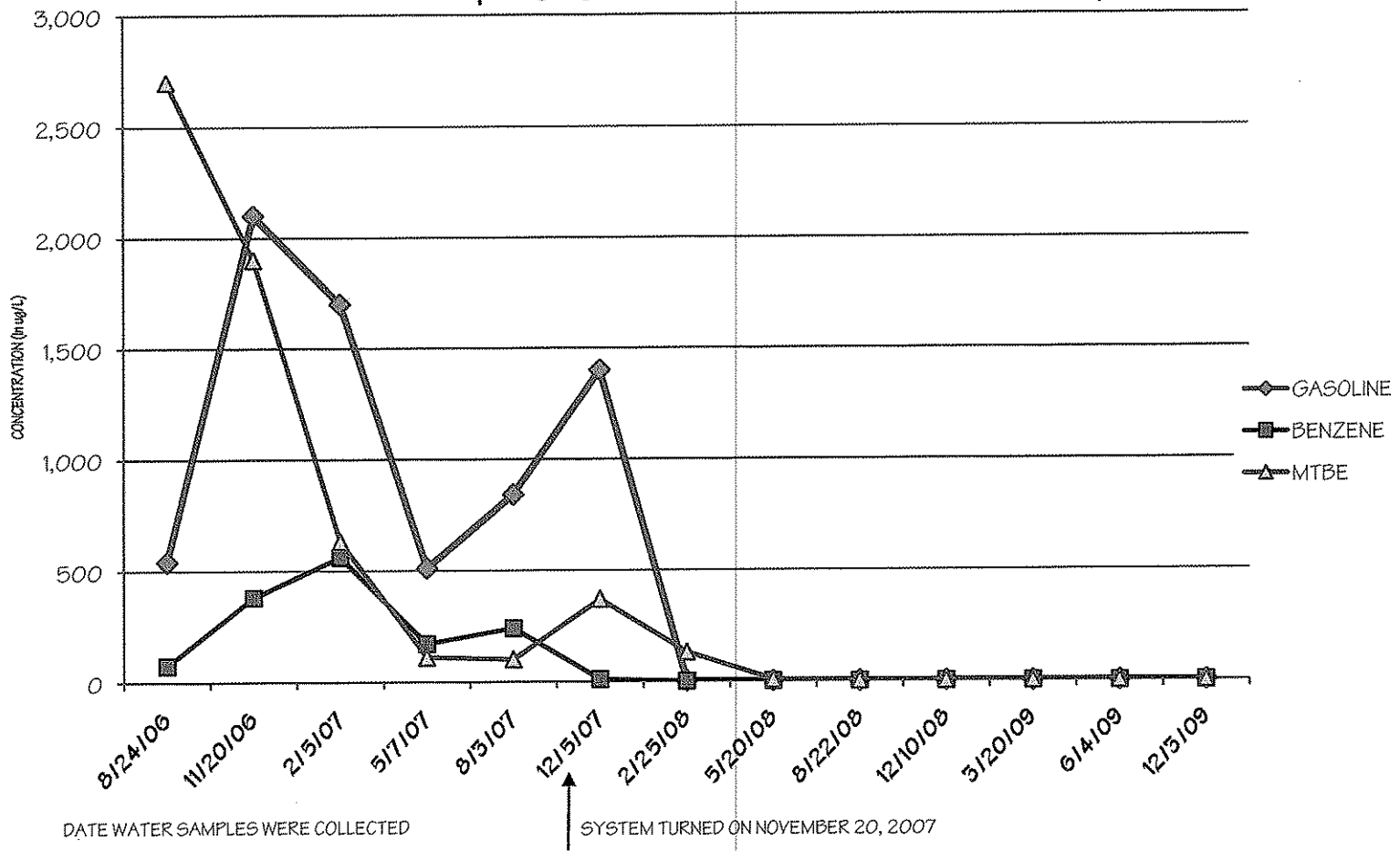
### TPH-G, Benzene, & MTBE Concentrations in Monitoring Well MW-6 Since Ozone-Sparging Remediation System Start-Up



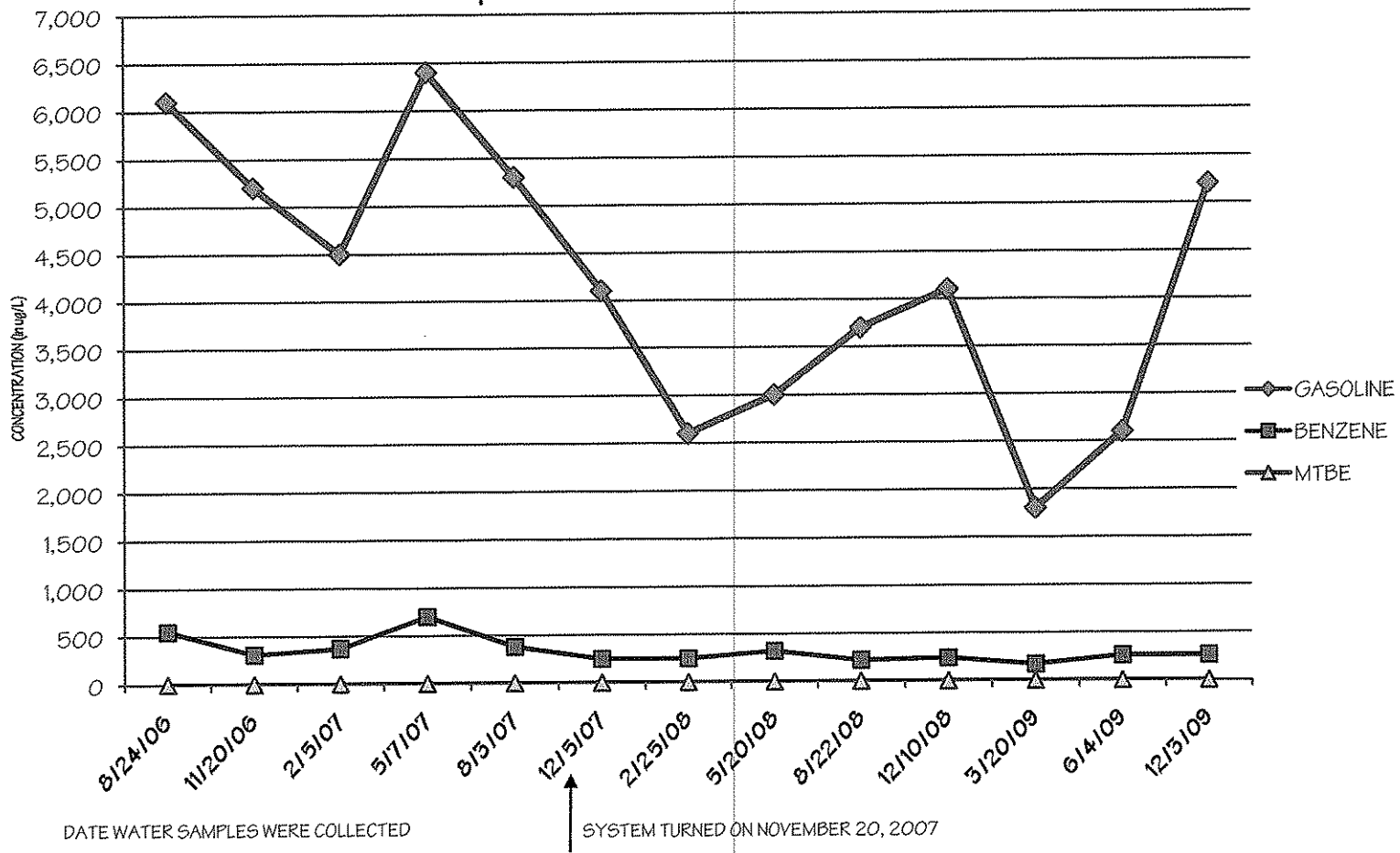
### TPH-G, Benzene, & MTBE Concentrations in Monitoring Well MW-7 Since Ozone-Sparging Remediation System Start-Up



### TPH-G, Benzene, & MTBE Concentrations in Monitoring Well MW-8 Since Ozone-Sparging Remediation System Start-Up



### TPH-G, Benzene, & MTBE Concentrations in Monitoring Well MW-9 Since Ozone-Sparging Remediation System Start-Up



### TPH-G, Benzene & MTBE Concentrations in Monitoring Well MW-10 Since Ozone-Sparging Remediation System Start-Up

