GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11066
2421 148th Avenue NE
Bellevue, Washington

Project No. 20-08-07-002

Prepared for:

BP Oil Company
Environmental Resources Management
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July 30, 1998

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INTRODUCTION

This report presents the results and findings of the May 19, 1998 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11066, 2421 148th Avenue NE, Bellevue, Washington. A site vicinity map is shown on Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the procedures and guidelines of the Washington State Department of Ecology.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevation in each well in reference to an arbitrary datum. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

Before sample collection, each well was purged of 3 casing volumes while recording field readings of pH, temperature, electrical conductivity, and dissolved oxygen. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, decontaminated bailer to just below the water level in the well. The samples were transferred from the bailer into laboratory-supplied containers and immediately placed in a chilled cooler for transport. The field report and sampling data sheets are presented in Appendix A.

SAMPLING AND ANALYTICAL RESULTS

The results of monitoring and laboratory analysis of the groundwater samples for this and previous quarters are summarized in Table 1. The potentiometric groundwater elevations as calculated from the results of this monitoring event are shown on Figure 2. The results of groundwater analysis are shown on Figure 3. The laboratory report and chain of custody record are presented in Appendix B.

Table 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11066
2421 148TH AVE. NE, BELLEVUE, WA

ALISTO PROJECT NO. 20-008

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	PRODUCT THICKNESS (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet) (a)	WTPH-D (ug/l)	WTPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl Benzene (ug/l)	Total Xylenes (ug/l)	MTBE (ug/l)	Total Lead (ug/l)	Dissolved Oxygen (%-ppm)	Lab
MW-1	(b)	3/2/92	313.08	0.03	23.42	289.54	---	---	---	---	---	---	---	---	---	---
MW-1	(b)	4/4/92		0.18	23.52	289.56	---	---	---	---	---	---	---	---	---	---
MW-1	(b)	5/12/92		0.23	23.49	289.63	---	---	---	---	---	---	---	---	---	---
MW-1	(b)	6/11/92		0.53	23.95	289.41	---	---	---	---	---	---	---	---	---	---
MW-1	(b)	5/26/93		0.07	24.62	288.38	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	6/28/94		1.03	24.72	289.04	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	9/29/94		0.68	25.08	288.40	---	---	---	---	---	---	---	---	---	
MW-1	(b)(c)	12/13/94		0.82	25.10	288.50	---	---	---	---	---	---	---	---	---	
MW-1	(b)(c)	3/3/95		0.47	23.27	290.05	---	---	---	---	---	---	---	---	---	
MW-1	(b)(c)	6/8/95		sheen	22.50	290.44	---	---	---	---	---	---	---	---	---	
MW-1	(b)(c)	8/30/95		0.17	23.40	289.68	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	12/1/95		0.51	24.59	288.76	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	3/4/96	312.94	0.01	21.06	291.89	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	6/4/96		0.01	20.89	292.06	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	9/6/96		0.03	22.14	290.82	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	12/4/96		sheen	22.34	290.60	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	3/6/97		0.01	18.72	294.23	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	5/29/97		sheen	18.81	294.13	---	---	---	---	---	---	---	---	---	---
MW-1	(b)	8/28/97		sheen	20.23	292.71	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	2/18/98		sheen	20.57	292.37	---	---	---	---	---	---	---	---	---	---
MW-1	(b)(c)	5/19/98		---	20.91	292.03	---	---	---	---	---	---	---	---	---	---
MW-2	(b)	3/2/92	312.13	1.55	24.35	289.02	---	---	---	---	---	---	---	---	---	---
MW-2	(b)	4/4/92		1.59	24.34	289.06	---	---	---	---	---	---	---	---	---	---
MW-2	(b)	5/12/92		1.61	24.26	289.16	---	---	---	---	---	---	---	---	---	---
MW-2	(b)	6/11/92		0.36	23.75	288.67	---	---	---	---	---	---	---	---	---	---
MW-2	(b)	5/26/93		0.43	24.45	288.02	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(c)	6/28/94		0.93	24.40	288.47	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(c)	9/29/94		0.92	25.02	287.85	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(c)	12/13/94		1.51	25.46	287.88	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(c)	3/3/95		0.18	23.95	288.32	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(c)	6/8/95		0.22	22.53	289.78	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(c)	8/30/95		0.14	23.25	288.99	---	---	---	---	---	---	---	---	---	
MW-2	(b)(c)	12/1/95		0.16	24.09	288.17	---	---	---	---	---	---	---	---	---	
MW-2	(b)(c)	3/4/96		0.01	21.11	291.03	---	---	---	---	---	---	---	---	---	
MW-2	(b)(c)	6/4/96		0.02	21.05	291.10	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(c)	9/6/96		0.05	22.16	290.01	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(c)	12/4/96		sheen	21.98	290.15	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(d)	3/6/97		sheen	18.85	293.28	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(d)	5/29/97		sheen	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(d)	8/28/97		sheen	20.34	291.79	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(d)	2/18/98		sheen	20.75	291.38	---	---	---	---	---	---	---	---	---	---
MW-2	(b)(d)	5/19/98		---	21.03	---	---	---	---	---	---	---	---	---	---	---

Table 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11066
2421 148TH AVE. NE, BELLEVUE, WA

ALISTO PROJECT NO. 20-008

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	PRODUCT THICKNESS (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet) (a)	WTPH-D (ug/l)	WTPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl Benzene (ug/l)	Total Xylenes (ug/l)	MTBE (ug/l)	Total Lead (ug/l)	Dissolved Oxygen (%-ppm)	Lab
MW-3	(b)	3/2/92	313.7	0.04	23.50	290.23	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	4/4/92		0.2	23.50	290.36	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	5/12/92		0.21	23.43	290.44	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	6/11/92		1.47	24.39	290.49	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	5/26/93		0.19	24.50	289.35	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	6/28/94		0.45	23.95	290.11	---	---	---	---	---	---	---	---	---	
MW-3	(b)	9/29/94		0.43	24.79	289.25	---	---	---	---	---	---	---	---	---	
MW-3	(b)	12/13/94		0.36	24.67	289.32	---	---	---	---	---	---	---	---	---	
MW-3	(b)	3/3/95		0.41	23.07	290.96	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	6/8/95		0.15	22.42	291.40	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	8/30/95		0.22	23.52	290.36	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	12/1/95		0.09	24.21	289.56	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	3/4/96		<0.01	21.11	292.59	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	6/4/96		0.01	21.05	292.66	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	9/6/96		0.1	22.29	291.49	---	---	---	---	---	---	---	---	---	---
MW-3	(b)	12/4/96		sheen	22.99	290.71	---	---	---	---	---	---	---	---	---	---
MW-3	(b)(d)	3/6/97		sheen	19.26	294.44	---	---	---	---	---	---	---	---	---	---
MW-3	(b)(d)	5/29/97		sheen	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	(b)(d)	8/28/97		sheen	20.39	293.31	---	---	---	---	---	---	---	---	---	---
MW-3	(b)(d)	2/18/98		sheen	20.77	292.93	---	---	---	---	---	---	---	---	---	---
MW-3	(b)(d)	5/19/98		---	21.06	---	---	---	---	---	---	---	---	---	---	---
MW-4		5/23/93	314.21	---	---	---	<50	<50	0.9	<0.5	<0.5	<1	---	6	---	---
MW-4		5/26/93		0	24.63	289.58	---	---	---	---	---	---	---	---	---	---
MW-4		6/28/94		0	23.88	290.33	---	<100	0.7	<0.5	<0.5	<0.5	---	---	14	---
MW-4		9/29/94		0	24.83	289.38	---	<100	0.8	<0.5	<0.5	<0.5	---	---	4	---
MW-4		12/13/94		0	24.61	289.6	---	<100	0.9	<0.5	<0.5	<0.5	---	---	14	---
MW-4		3/3/95		0	22.92	291.29	---	<100	1.1	<0.5	<0.5	<0.5	---	---	8	---
MW-4		6/8/95		0	22.25	291.96	---	<100	1.3	<0.5	<0.5	<0.5	---	---	5	---
MW-4		8/30/95		0	23.37	290.84	---	<100	0.58	<0.5	<0.5	<0.5	---	---	8	---
MW-4		12/1/95		0	24.44	289.77	---	<100	<0.5	<0.5	<0.5	<0.5	---	---	3	
MW-4		3/4/96		0	22.22	291.99	---	<100	1.5	<0.5	<0.5	<0.5	---	---	5	
MW-4		6/4/96		0	21.20	293.01	---	<100	2	<0.5	<0.5	<0.5	---	---	7	
MW-4		9/6/96		0	22.56	291.65	---	<100	<0.5	<0.5	<0.5	<0.5	<1.0	---	6	---
MW-4		12/4/96		0	22.56	291.65	---	<100	<0.5	<0.5	<0.5	<0.5	<1.0	---	7	---
MW-4		3/6/97		0	19.32	294.89	---	<100	2.3	<0.5	<0.5	<1.5	<10	---	3	---
MW-4		5/29/97		0	18.97	295.24	---	<100	2.3	<0.5	<0.5	<1.5	<5	---	4	---
MW-4		8/28/97		0	20.53	293.68	---	<100	0.9	<0.5	<0.5	<1.5	<5	---	7%	---
MW-4		2/18/98		0	20.72	293.49	---	<100	<0.5	<0.5	<0.5	<1.5	<5	---	0.3ppm	---
MW-4		5/19/98		0	21.22	292.99	---	<100	<0.5	<0.5	<0.5	<1.5	<5.0	---	0.8ppm	AEN

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2421 148TH AVE. NE, BELLEVUE, WA

ALISTO PROJECT NO. 20-008

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	PRODUCT THICKNESS (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet) (a)	WTPH-D (ug/l)	WTPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl Benzene (ug/l)	Total Xylenes (ug/l)	MTBE (ug/l)	Total Lead (ug/l)	Dissolved Oxygen (%-ppm)	Lab
MW-5		5/23/93	315.62	---	---	---	<50	110	2	0.9	4.9	10	---	28	---	---
MW-5		5/26/93		0	25.27	290.35	---	---	---	---	---	---	---	---	---	---
MW-5		6/28/94		0	24.52	291.1	---	<100	<0.5	<0.5	<0.5	<0.5	---	---	1	---
MW-5		9/29/94		0	25.51	290.11	---	<100	<0.5	<0.5	<0.5	<0.5	---	---	33	---
MW-5		12/13/94		0	25.34	290.28	---	<100	0.9	<0.5	<0.5	<0.5	---	---	40	---
MW-5		3/3/95		0	23.57	292.05	---	<100	<0.5	<0.5	<0.5	<0.5	---	---	37	
MW-5		6/8/95		0	22.96	292.66	---	<100	<0.5	<0.5	<0.5	<0.5	---	---	6	
MW-5		8/30/95		0	24.14	291.48	---	<100	<0.5	<0.5	<0.5	<0.5	---	---	16	
MW-5		12/1/95		0	25.13	290.49	---	<100	<0.5	<0.5	<0.5	<0.5	---	---	37	---
MW-5		3/4/96		0	21.81	293.81	---	<100	<0.5	<0.5	<0.5	<0.5	---	---	25	---
MW-5		6/4/96		0	21.89	293.73	---	<100	<0.5	<0.5	<0.5	<0.5	---	---	5	---
MW-5		9/6/96		0	23.29	292.33	---	<100	<0.5	<0.5	<0.5	<0.5	<1.0	---	7	---
MW-5		12/4/96		0	23.33	292.29	---	<100	<0.5	<0.5	<0.5	<0.5	<1.0	---	32	---
MW-5		3/6/97		0	20.14	295.48	---	<100	0.8	<0.5	<0.5	<1.5	<10	---	2	---
MW-5		5/29/97		0	19.88	295.74	---	<100	0.8	<0.5	<0.5	<1.5	<5	---	4	---
MW-5		8/28/97		0	21.48	294.14	---	<100	0.8	<0.5	<0.5	<1.5	<5	---	7%	---
MW-5		2/18/98		0	21.63	293.99	---	<100	<0.5	<0.5	<0.5	<1.5	<5	---	0.7ppm	---
MW-5		5/19/98		0	22.08	293.54	---	<100	<0.5	<0.5	<0.5	<1.5	<5.0	---	0.8ppm	AEN
MW-6		5/23/93	314.82	---	---	---	2100	70000	6600	12000	880	6800	---	31	---	---
MW-6		5/26/93		0	25.21	289.61	---	---	---	---	---	---	---	---	---	---
MW-6	(b)	6/28/94		0.12	24.76	290.156	---	---	---	---	---	---	---	---	---	---
MW-6	(b)	9/29/94		0.43	25.80	289.364	---	---	---	---	---	---	---	---	---	---
MW-6	(b)	12/13/94		0.33	25.83	289.254	---	---	---	---	---	---	---	---	---	---
MW-6	(b)	3/3/95		0.09	24.02	290.872	---	---	---	---	---	---	---	---	---	---
MW-6	(b)	6/8/95		0.1	23.30	291.6	---	---	---	---	---	---	---	---	---	---
MW-6	(b)	8/30/95		0.36	24.51	290.598	---	---	---	---	---	---	---	---	---	---
MW-6	(b)	12/1/95		0.38	25.55	289.574	---	---	---	---	---	---	---	---	---	---
MW-6	(b)	3/4/96		<0.01	22.23	292.59	---	---	---	---	---	---	---	---	---	---
MW-6	(b)	6/4/96		0.02	22.00	292.836	---	---	---	---	---	---	---	---	---	---
MW-6	(b)	9/6/96		0.23	23.25	291.754	---	---	---	---	---	---	---	---	---	
MW-6	(b)	12/4/96		0.01	23.31	291.518	---	---	---	---	---	---	---	---	---	
MW-6	(b)(d)	3/6/97		sheen	20.06	294.76	---	---	---	---	---	---	---	---	---	
MW-6	(b)(d)	5/29/97		sheen	19.83	294.99	---	---	---	---	---	---	---	---	---	---
MW-6	(b)(d)	8/28/97		sheen	21.26	293.56	---	---	---	---	---	---	---	---	---	---
MW-6	(b)(d)	2/18/98		sheen	21.75	293.07	---	---	---	---	---	---	---	---	---	---
MW-6	(b)(d)	5/19/98		---	21.92	292.90	---	---	---	---	---	---	---	---	---	---

Table 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11066
2421 148TH AVE. NE, BELLEVUE, WA

ALISTO PROJECT NO. 20-008

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	PRODUCT THICKNESS (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet) (a)	WTPH-D (ug/l)	WTPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl Benzene (ug/l)	Total Xylenes (ug/l)	MTBE (ug/l)	Total Lead (ug/l)	Dissolved Oxygen (%-ppm)	Lab
MW-7	(b)	5/26/93	311.95	3.91	27.16	287.92	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(e)	6/28/94		---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(e)	9/29/94		---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(e)	12/13/94		---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(e)	6/8/95		---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(e)	8/30/95		---	---	---	---	---	---	---	---	---	---	---	---	
MW-7	(b)(e)	12/1/95		---	---	---	---	---	---	---	---	---	---	---	---	
MW-7	(b)(e)	3/4/96		---	---	---	---	---	---	---	---	---	---	---	---	
MW-7	(b)(e)	6/4/96		---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(e)	9/6/96		---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(c)	12/4/96		0.01	22.29	---	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(c)	3/6/97		<0.01	19.15	---	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(c)	5/29/97		sheen	19.03	---	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(d)	8/28/97		sheen	20.39	---	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(d)	2/18/98		<0.01	20.81	291.14	---	---	---	---	---	---	---	---	---	---
MW-7	(b)(c)	5/19/98		<0.01	21.10	290.85	---	---	---	---	---	---	---	---	---	---
MW-8	(b)	5/26/93	310.82	0	23.03	287.79	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	6/28/94		0.48	23.33	287.874	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	9/29/94		0.36	23.75	287.358	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	12/13/94		2.56	25.46	287.408	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	3/3/95		2.32	23.72	288.956	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	6/8/95		0.65	22.06	289.28	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	8/30/95		0.4	22.58	288.56	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	12/1/95		0.27	23.35	287.686	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	3/4/96		0.01	20.17	290.658	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	6/4/96		0.01	20.21	290.618	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	9/6/96		0.02	21.27	289.566	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	12/4/96		sheen	20.91	289.91	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	3/6/97		sheen	17.70	293.12	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	5/29/97		sheen	17.96	292.86	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	8/28/97		sheen	19.34	291.48	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(c)	2/18/98		sheen	19.66	291.16	---	---	---	---	---	---	---	---	---	---
MW-8	(b)(d)	5/19/98		---	20.01	290.81	---	---	---	---	---	---	---	---	---	---
MW-9		6/8/95	314.9	0	22.81	292.09	---	<100	8	<0.5	0.58	1.1	---	---	9	---
MW-9		8/30/95		0	23.90	291	---	<100	26	<0.5	1.9	2.3	---	---	4	---
MW-9		12/1/95		0	24.92	289.98	---	<100	18	<0.5	<0.5	<0.5	---	---	6	---
MW-9		3/4/96		0	21.67	293.23	---	<100	17	0.5	0.9	1	---	---	4	---
MW-9		6/4/96		0	21.53	293.37	---	200	44	<0.5	0.6	5.4	---	---	5	---
MW-9		9/6/96		0	22.89	292.01	---	100	31	<0.5	<0.5	2.9	7.8	---	4	---
MW-9		12/4/96		0	22.93	291.97	---	<100	14	<0.5	<0.5	<0.5	1.3	---	7	---
MW-9		3/6/97		0	19.67	295.23	---	<100	14	<0.5	0.7	<1.5	<10	---	3	---
MW-9		5/29/97		0	19.36	295.54	---	<100	23	0.7	1.5	<1.5	<5	---	3	---
MW-9		8/28/97		0	20.93	293.97	---	<100	6.9	0.7	1.1	1.4	<5	---	9%	---
MW-9		2/18/98		0	21.23	293.67	---	<100	0.98	<0.5	<0.5	<1.5	<5	---	0.2ppm	---
MW-9		5/19/98		0	21.55	293.35	---	<100	1.4	<0.5	<0.5	<1.5	<5.0	---	0.7ppm	AEN

Table 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11066
2421 148TH AVE. NE, BELLEVUE, WA

ALISTO PROJECT NO. 20-008

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	PRODUCT THICKNESS (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet) (a)	WTPH-D (ug/l)	WTPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl Benzene (ug/l)	Total Xylenes (ug/l)	MTBE (ug/l)	Total Lead (ug/l)	Dissolved Oxygen (%-ppm)	Lab
TB	5/19/98	---	---	---	---	---	<100	<0.5	<0.5	<0.5	<1.5	<5.0	---	---	AEN

ABBREVIATIONS:

WTPH-G	Washington Total Petroleum Hydrocarbons as Gasoline, Ecology Method
WTPH-D	Washington Total Petroleum Hydrocarbons as Diesel, Ecology Method
BTEX	Benzene, Toluene, Ethyl-benzene, total Xylenes by EPA Method 8020
MTBE	Methyl-Tert-Butyl-Ether by EPA Method 8015M
ug/l	Micrograms per liter
ppm	Parts per million
---	Not applicable/analyzed/measured
<	Concentrations preceded by a "<" are laboratory method detection limits. The method detection limit may vary depending on the laboratory used and sample characteristics.
AEN	American Environmental Network, Inc.

NOTES:

(a) Groundwater elevation established relative to an arbitrary datum of 100.00 feet. Groundwater elevation is corrected for the effects of LPH using the following formula: TOC - [DTW - (PT)(0.80)] were TOC=Top of Casing, DTW=Depth to Water, PT=Product Thickness, and 0.80=Typical Specific Gravity for Gasoline.
(b) Not sampled, product present
(c) Passive skimmer in place
(d) Sorbent tube in place
(e) Not measured, pump in well
(f) Trip blank.

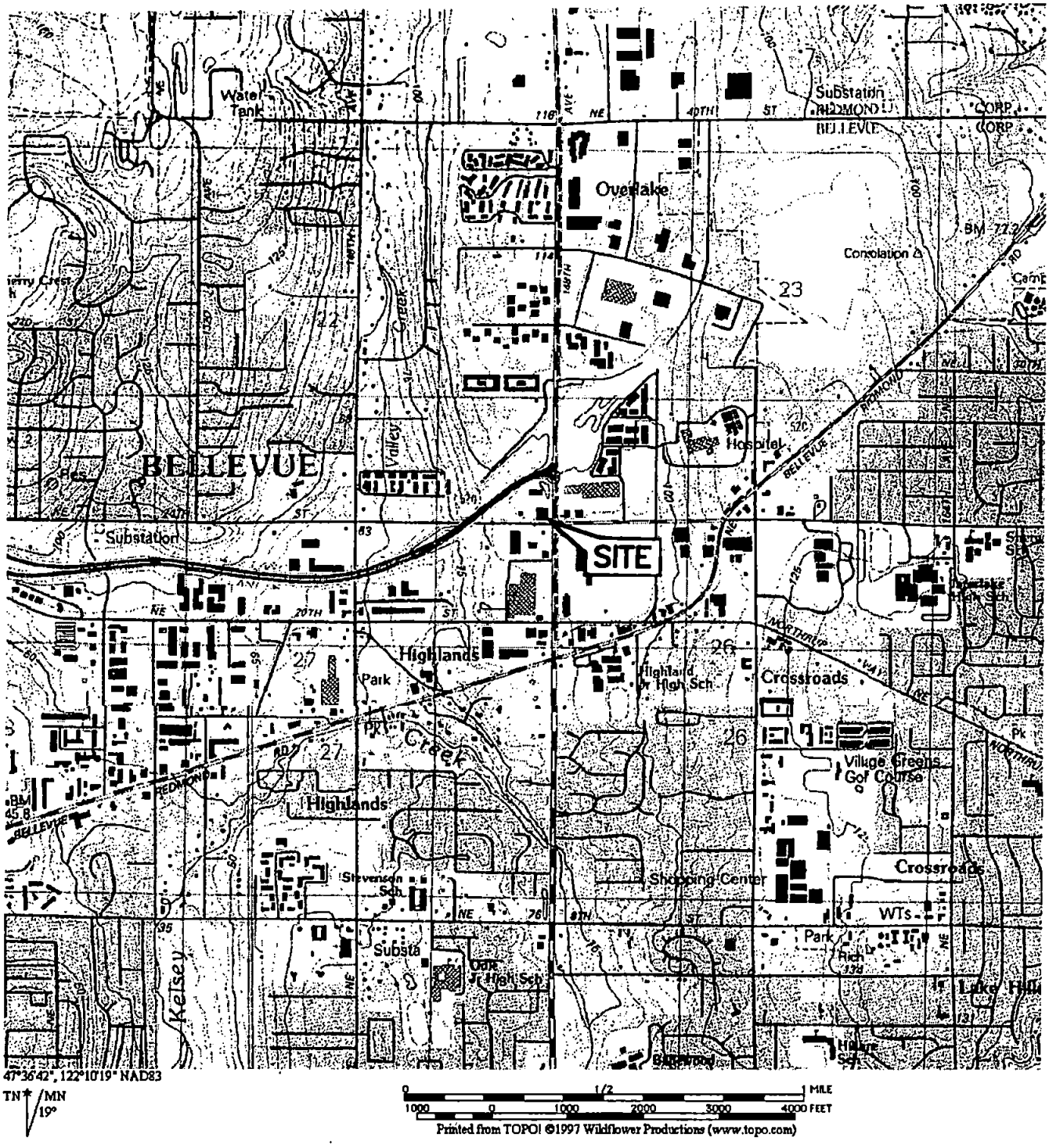


FIGURE 1

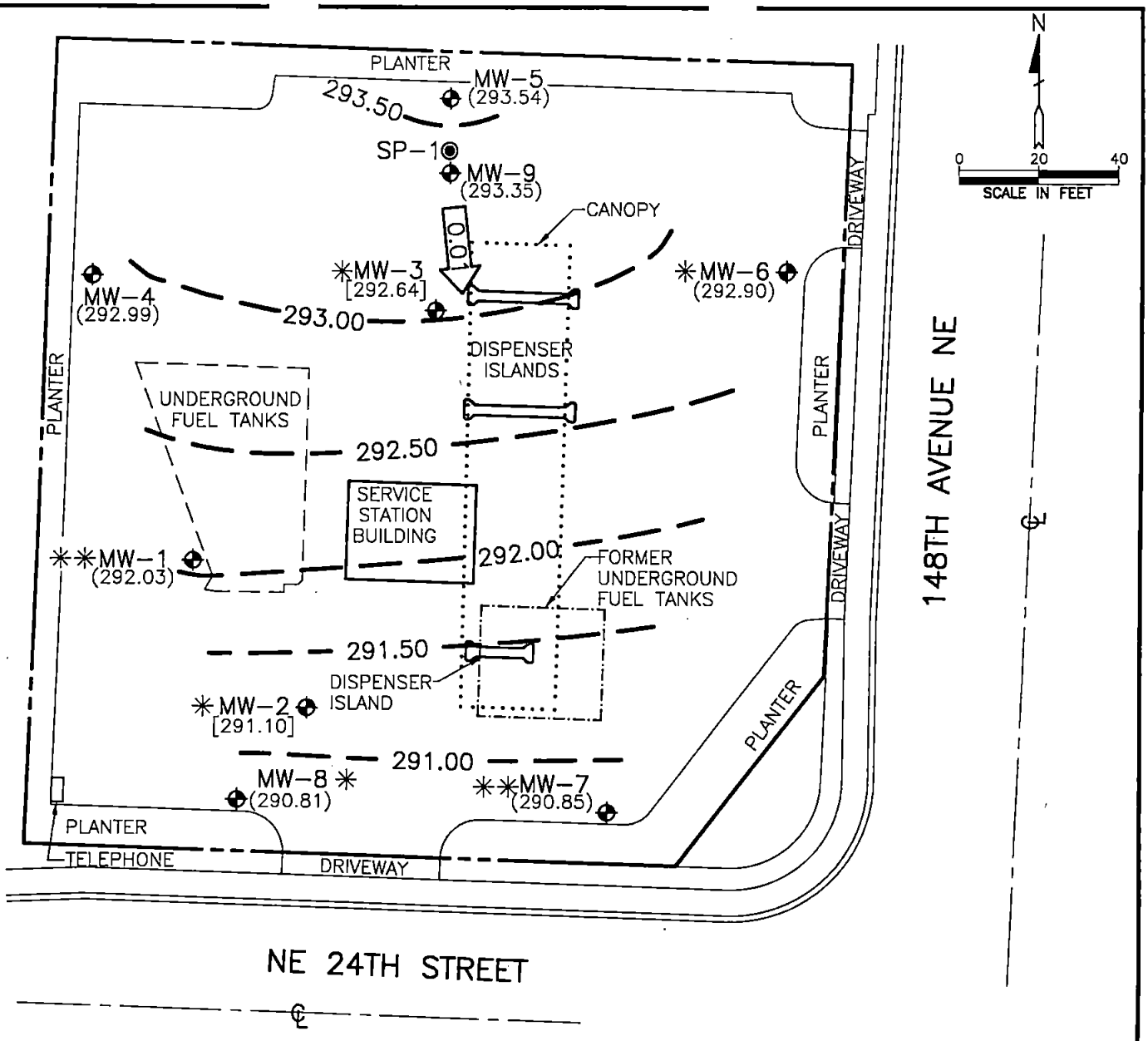
SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11066
2421 148TH AVENUE NE
BELLEVUE, WASHINGTON

PROJECT NO. 20-008

ALISTO ENGINEERING GROUP
TUKWILA, WASHINGTON

20008B—DWG 5-7-98 RKW 1=1



LEGEND

- ◆ GROUNDWATER MONITORING WELL
- ◉ AIR SPARGING POINT
- (290.85) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 291.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.50 FOOT)
- 0.01 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT
- [291.10] GROUNDWATER ELEVATION NOT USED IN PREPARING CONTOURS
- ✳ SORBENT TUBE IN PLACE
- ✳✳ PASSIVE SKIMMER IN PLACE

NOTE:
Potentiometric groundwater elevation contours were generated with Quicksurf using the Kriging method with a spherical variogram on a triangulated grid surface.

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

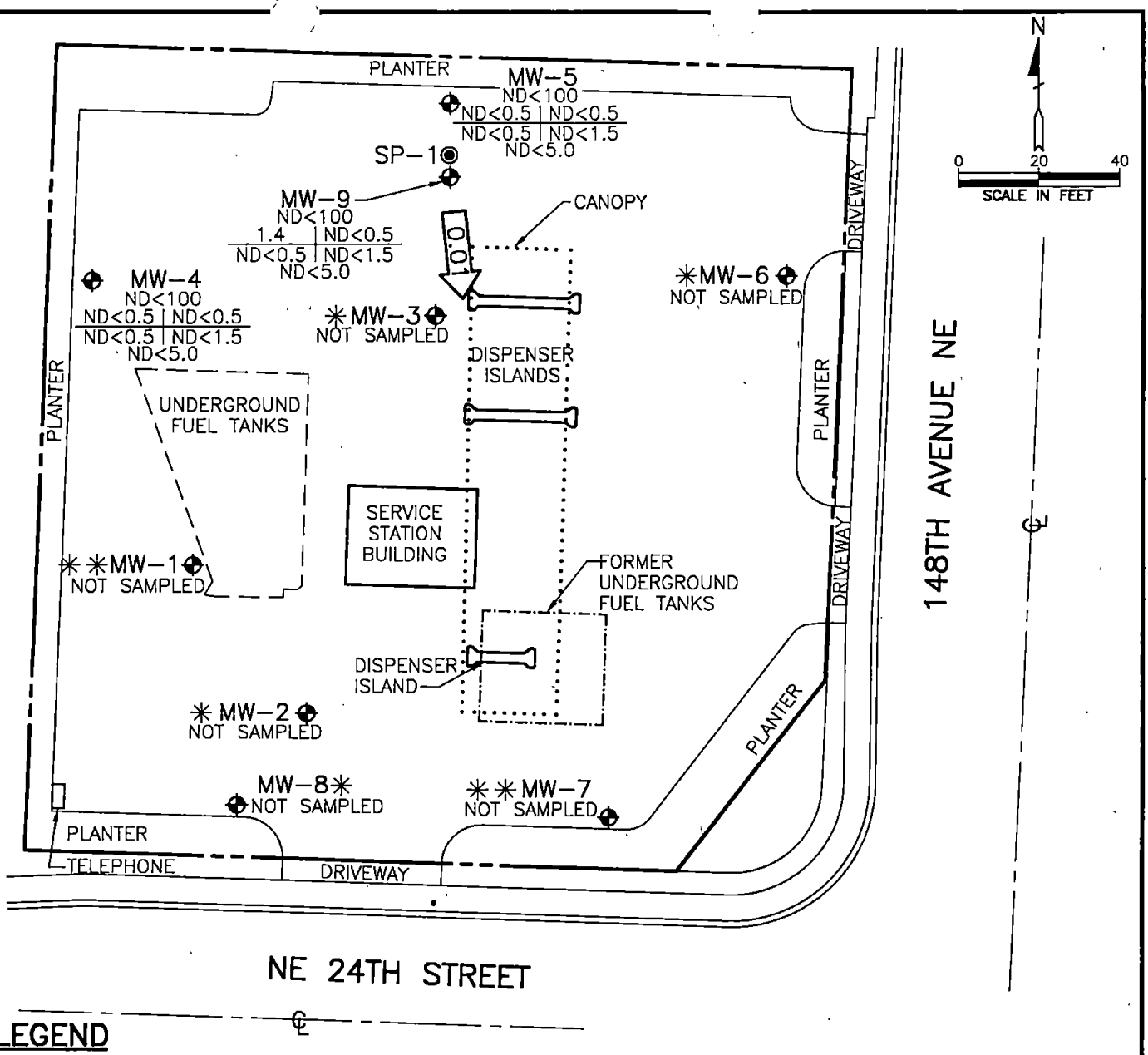
MAY 19, 1998

BP OIL SERVICE STATION NO. 11066
2421 148TH AVENUE NE
BELLEVUE, WASHINGTON

PROJECT NO. 20–008

ALISTO ENGINEERING GROUP
TUKWILA, WASHINGTON

20008D-Z.DWG 7-17-98 TAH 1=40



LEGEND

⊕	GROUNDWATER MONITORING WELL
◉	AIR SPARGING POINT
TPH-G / B | T / E | X / MTBE	CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
MTBE	METHYL TERT BUTYL ETHER
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
⇦ 0.01	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT
✳	SORBENT TUBE IN PLACE
✳✳	PASSIVE SKIMMER IN PLACE

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

MAY 19, 1998

BP OIL SERVICE STATION NO. 11066
2421 148TH AVENUE NE
BELLEVUE, WASHINGTON

PROJECT NO. 20-008

ALISTO ENGINEERING GROUP
TUKWILA, WASHINGTON

20008E-2.DWG 7-17-98 TAH 1=40

APPENDIX A

FIELD REPORT / SAMPLING DATA SHEETS

ALISTO ENGINEERING GROUP

1145 - 12th AVENUE NW, SUITE C-4A
ISSAQUAH, WA 98027, (425) 837-3944, fax 837-8543

Field Report / Sampling Data Sheet

Station No: 11066 Date: 5/19/98
Project No.: 20-08-07-002 Day: S M T W TH F SA
Address: 2421 148th City: Bellevue
Contract No.: H328865 Sampler: Bill Dougherty

DEPTH TO GROUNDWATER SUMMARY

WELL ID	DEPTH TO WATER	PRODUCT THICKNESS	LEVEL TIME	WELL ID	DEPTH TO WATER	PRODUCT THICKNESS	LEVEL TIME	WELL ID	DEPTH TO WATER	PRODUCT THICKNESS	LEVEL TIME
MW5	22.08	-	14:40	MW2	21.03	sheen	16:40				
MW4	21.22	-	14:42	MW8	20.01	sheen	17:05				
MW9	21.55	-	14:44	MW7	21.10	5.01	17:10				
MW6	21.92	sheen	16:55								
MW1	20.91	sheen	17:00								
MW3	21.06	sheen	16:48								

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW5	22.08	2	✓	-	Y (N)						0.8	⊗ TPH-G/BTEX___ ⊗ MTBE___ ○ TPH Diesel___ ○ ___
Tot. Depth - Water Level= 33.4	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol. 6									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port												TIME/SAMPLE ID
Comments:												15:05

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW4	21.22	2	✓	-	Y (N)						0.8	⊗ TPH-G/BTEX___ ⊗ MTBE___ ○ TPH Diesel___ ○ ___
Tot. Depth - Water Level= 34.5	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol. 7									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port												TIME/SAMPLE ID
Comments: moved car												15:35

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW9	21.55	2	✓	-	Y (N)						0.7	⊗ TPH-G/BTEX___ ⊗ MTBE___ ○ TPH Diesel___ ○ ___
Tot. Depth - Water Level= 28.6	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol. 4									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port												TIME/SAMPLE ID
Comments:												16:25

FIELD INSTRUMENT CALIBRATION DATA

pH METER _____ 4.00 _____ 7.00 _____ 10.00 _____ TEMPERATURE COMPENSATED Y N TIME _____

D.O. METER ✓ ZERO d.O. SOLUTION _____ BAROMETRIC PRESSURE _____ TEMP 65 WEATHER Sun

CONDUCTIVITY METER _____ 10,000 _____ TURBIDITY METER _____ 5.0 NTU _____ OTHER _____

LEAK DETECTOR : _____ ALARM MODE _____ NON ALARM MODE

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING GROUP
1145 - 12th AVENUE NW, SUITE C-4A
ISSAQUAH, WA 98027, (425) 837-3944, fax 837-8543

Station No: 11066 **Date:** 5/19/98
Project No.: 20-08-07-002 **Day:** S M T W TH F SA
Address: 2421 148th **City:** Bellevue
Contract No.: H32885 **Sampler:** Bill Dougherty

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	TIME/SAMPLE ID
MW6	21.92	2	✓	sheen	(Y) N							N/T
Tot. Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol.									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port												
Comments: moved car, Sorbent Tube (adj)												
MW1	20.91	4	✓	sheen	(Y) N							N/T
Tot. Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol.									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port												
Comments: Skimmer empty												
MW3	21.06	4	✓	sheen	(Y) N							N/T
Tot. Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol.									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port												
Comments: Sorbent tube (adj)												
MW2	21.03	4	✓	sheen	(Y) N							N/T
Tot. Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol.									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port												
Comments: Sorbent Tube												
MW8	20.01	4	✓	sheen	(Y) N							N/T
Tot. Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol.									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port												
Comments: Sorbent Tube												

O TPH-G/BTEX___
O MTBE_____
O TPH Diesel____
O _____

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING GROUP
1145- 12th AVENUE NW, SUITE C-4A
ISSAQUAH, WA 98027, (425) 837-3944, fax 837-8543

Station No: 11066 Date: 5/19/98
Project No.: 20-08-07-002 Day: S M T W TH F SA
Address: 2421 148th City: Bellevue
Contract No.: H328865 Sampler: Bill Dougherty

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW7	21.10	4	✓	<.01	(Y) N						

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments: Skimmer empty (adj)

O TPH-G/BTEX___ O MTBE___ O TPH Diesel___ O ___

TIME/SAMPLE ID: N/T

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						

Tot. Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

O TPH-G/BTEX___ O MTBE___ O TPH Diesel___ O ___

TIME/SAMPLE ID:

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						

Tot. Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

O TPH-G/BTEX___ O MTBE___ O TPH Diesel___ O ___

TIME/SAMPLE ID:

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						

Tot. Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

O TPH-G/BTEX___ O MTBE___ O TPH Diesel___ O ___

TIME/SAMPLE ID:

Allowed MW6, MW1, MW8 + MW7 2½ hours to recover/stabilize before taking water levels
5 bbls
Treatment system not connected

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

BP EXPLORATION & OIL, INC.
ENVIRONMENTAL REMEDIATION MANAGEMENT
DATA REVIEW CHECKLIST

BP Site Number: 11066
ERM Contact: S NOOTBAAR
Sampling Date: 5/19/98
Matrix Description: WATER
Date Final Report Received: 6/8/98
Laboratory & Location: NW PORTLAND

	Yes	No	NA
1. Is BP contract release number consistent with analytical report?	✓		
2. Was report submitted within the specified timeframe?	✓		
3. Does report agree with the COC?	✓		
4. Are units consistent with the given matrix?	✓		
5. Were any target analytes/compounds detected in blanks (ie. trip or equipment)?		✓	
6. Are duplicate water samples within __%?	✓		
7. Are holding times met?	✓		
8. Are surrogates within limits using laboratory criteria?	✓		
9. Are MS/MSD acceptable using laboratory criteria?	✓		
10. Are LCS results acceptable using laboratory criteria?	✓		

Notes/Comments: _____

Data Validation Completed by (print): [signature]
(signature): [signature]
Date: 5/28/98

American Environmental Network, Inc.

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 684-0447

Dave Cooper
Alisto Engineering Group
1145 12th Ave. NW
C-4A
Issaquah, WA 98027

Date: 06/08/1998
AEN Account No.: 90054
AEN Job Number: 98.01271

Project: BP 11066 / H328865
Location: 20-08-07-002

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
94248	MW-5	Water	05/19/1998	05/21/1998
94249	MW-4	Water	05/19/1998	05/21/1998
94250	MW-9	Water	05/19/1998	05/21/1998
94251	Trip Blank	Water	05/19/1998	05/21/1998

Approved by:

Andi Hoevet
Project Manager
AEN, INC.

Technical Review
AEN, INC.

ANALYTICAL REPORT

Dave Cooper
Alisto Engineering Group
1145 12th Ave. NW
C-4A
Issaquah, WA 98027

06/08/1998
Job No.: 98.01271

Project Name: BP 11066 / H328865
Date Received: 05/21/1998

Sample Number 94248 — Sample Description MW-5

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
BTEX/MTBE/WTPH-G						
Dilution Factor		1			05/21/1998	
Benzene	8020	ND	0.5	ug/L	05/21/1998	
Toluene	8020	ND	0.5	ug/L	05/21/1998	
Ethyl Benzene	8020	ND	0.5	ug/L	05/21/1998	
Xylenes	8020	ND	1.5	ug/L	05/21/1998	
MTBE	8015 M	ND	5.0	ug/L	05/21/1998	
WTPH-G	WTPH-G	ND	100	ug/L	05/26/1998	V

Sample Number 94249 — Sample Description MW-4

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
BTEX/MTBE/WTPH-G						
Dilution Factor		1			05/21/1998	
Benzene	8020	ND	0.5	ug/L	05/21/1998	
Toluene	8020	ND	0.5	ug/L	05/21/1998	
Ethyl Benzene	8020	ND	0.5	ug/L	05/21/1998	
Xylenes	8020	ND	1.5	ug/L	05/21/1998	
MTBE	8015 M	ND	5.0	ug/L	05/21/1998	
WTPH-G	WTPH-G	ND	100	ug/L	05/26/1998	

Sample Number 94250 — Sample Description MW-9

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
BTEX/MTBE/WTPH-G						
Dilution Factor		1			05/21/1998	V
Benzene	8020	1.4	0.5	ug/L	05/21/1998	
Toluene	8020	ND	0.5	ug/L	05/21/1998	
Ethyl Benzene	8020	ND	0.5	ug/L	05/21/1998	
Xylenes	8020	ND	1.5	ug/L	05/21/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Dave Cooper
Alisto Engineering Group
1145 12th Ave. NW
C-4A
Issaquah, WA 98027

06/08/1998
Job No.: 98.01271

Project Name: BP 11066 / H328865
Date Received: 05/21/1998

Sample Number 94250 — Sample Description: MW-9

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
MTBE	8015 M	ND	5.0	ug/L	05/21/1998	
WTPH-G	WTPH-G	ND	100	ug/L	05/26/1998	

Sample Number 94251 — Sample Description: Trip Blank

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
BTEX/MTBE/WTPH-G						
Dilution Factor		1			05/21/1998	
Benzene	8020	ND	0.5	ug/L	05/21/1998	
Toluene	8020	ND	0.5	ug/L	05/21/1998	
Ethyl Benzene	8020	ND	0.5	ug/L	05/21/1998	
Xylenes	8020	ND	1.5	ug/L	05/21/1998	
MTBE	8015 M	ND	5.0	ug/L	05/21/1998	
WTPH-G	WTPH-G	ND	100	ug/L	05/26/1998	V

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Dave Cooper
Alisto Engineering Group
1145 12th Ave. NW
C-4A
Issaquah, WA 98027

06/08/1998
Job No.: 98.01271

Project Name: BP 11066 / H328865
Date Received: 05/21/1998

SURROGATES	METHODS	RESULTS		DATE ANALYZED	FLAG
Sample Number 94248	Sample Description MW-5				
TFT (Surr.)		110	%	05/21/1998	
Sample Number 94249	Sample Description MW-4				
TFT (Surr.)		111	%	05/26/1998	
Sample Number 94250	Sample Description MW-9				
TFT (Surr.)		109	%	05/21/1998	
Sample Number 94251	Sample Description Trip Blank				
TFT (Surr.)		117	%	05/21/1998	

QUALITY CONTROL REPORT
CONTINUING CALIBRATION VERIFICATION

Alisto Engineering Group
1145 12th Ave. NW
C-4A
Issaquah, WA 98027

Date: 06/08/1998

Job Number: 98.01271

Contact: Dave Cooper
Project: BP 11066 / H328865

Analyte	CCV True Concentration	Concentration Found	Percent Recovery	Date Analyzed
BTEX/MTBE/WTPH-G				
Benzene	40.0	41.0	102.5	05/21/1998
Toluene	40.0	41.4	103.5	05/21/1998
Ethyl Benzene	40.0	41.7	104.3	05/21/1998
Xylenes	120	126	105.0	05/21/1998
WTPH-G	1000	1060	106.0	05/21/1998
MTBE	40.0	41.4	103.5	05/21/1998
TFT (Surr.)	100	108	108.0	05/21/1998

CCV - Continuing Calibration Verification

QUALITY CONTROL REPORT
MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Alisto Engineering Group
1145 12th Ave. NW
C-4A
Issaquah, WA 98027

Date: 06/08/1998

Job Number: 98.01271

Contact: Dave Cooper
Project: BP 11066 / H328865

Analyte	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD	Flags
BTEX/MTBE/WTPH-G											
Benzene	39.6	ND	40.0	ug/L	99.0	41.0	40.0	ug/L	102.5	3.4	
Toluene	40.9	ND	40.0	ug/L	102.3	41.6	40.0	ug/L	104.0	1.6	
Ethyl Benzene	40.9	ND	40.0	ug/L	102.3	41.6	40.0	ug/L	104.0	1.6	
Xylenes	124	ND	120	ug/L	103.3	126	120	ug/L	105.0	1.6	
MTBE		ND		ug/L				ug/L			

QC Sample:

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
dil.= Diluted Out

American Environmental Network, Inc. (503)684-0447 (503)620-0393 FAX
17400 SW Upper Boones Ferry Rd., Portland, OR 97224

QUALITY CONTROL REPORT
BLANKS

Alisto Engineering Group
1145 12th Ave. NW
C-4A
Issaquah, WA 98027

Date: 06/08/1998

Job Number: 98.01271

Contact: Dave Cooper
Project: BP 11066 / H328865
Location: 20-08-07-002

Analyte	Blank Analysis	Report Limit	Units	Date Analyzed
BTEX/MTBE/WTPH-G				
Dilution Factor	1			05/21/1998
Benzene	ND	0.5	ug/L	05/21/1998
Toluene	ND	0.5	ug/L	05/21/1998
Ethyl Benzene	ND	0.5	ug/L	05/21/1998
Xylenes	ND	1.5	ug/L	05/21/1998
WTPH-G	ND	100	ug/L	05/21/1998
MTBE	ND	10	ug/L	05/21/1998
TFT (Surr.)	111		%	05/21/1998

QUALITY CONTROL REPORT
DUPLICATES

Alisto Engineering Group
1145 12th Ave. NW
C-4A
Issaquah, WA 98027

Date: 06/08/1998

Job Number: 98.01271

Contact: Dave Cooper
Project: BP 11066 / H328865

Analyte	Original Analysis	Duplicate Analysis	Units	RPD	Date Analyzed	Flag
BTEX/MTBE/WTPH-G						
WTPH-G	ND	ND	ug/L		05/26/1998	
BTEX/MTBE/WTPH-G						
WTPH-G	ND	ND	ug/L		05/26/1998	

NOTE: Duplicates may not be samples from this job.

RPD - Relative Percent Difference

FLAG GLOSSARY

A	This sample does not have a typical gasoline pattern.
B1	This sample does not have a typical diesel pattern.
B	Analyte found in the associated blank as well as the sample.
C	The sample contains a lighter hydrocarbon than gasoline.
CN	See case narrative
CS	Outside control limits or unusual matrix; see case narrative.
D	The sample extends to a heavier hydrocarbon range than gasoline.
d	Results on a dry weight basis
DIL	Result was calculated from dilution.
E	The sample extends to a lighter hydrocarbon range than diesel.
F	The sample extends to a heavier hydrocarbon range than diesel.
G	The positive result for gasoline is due to single component comtamination.
I	The oil pattern for this sample is not typical.
J	The result for this compound is an estimated concentration.
L	The LCS recovery exceeded control limits. See the LCS page of this report.
LM	The LCS recovery exeeded control limits; the MS/MSD were in control validating the batch.
M	MS and/or MSD percent recovery exceeds control limits.
MD	Unable to calculate MS/MSD recovery due to high amount of analyte; greater than 4 times spike level.
MR	The MS/MSD RPD is greater than method critera. The sample was re-extracted and re-analyzed with similar results indicating a non-homogeneous sample!
MM	The Matrix Spike exceeded control limits; LCS was in control validating the batch.
MI	Outside control limits due to matrix interference.
N	Manual integration performed on sample for quantification.
N/A	Not Applicable.
NC	Not calcuable.
NO	Not Analyzed.
P	A post digestion spike was analyzed, and recoveries were within control limits.
Q	Detection limits elevated due to sample matrix.
Q1	Detection limits elevated due to high levels of non-target compounds. Sample(s) run at a dilution.
R	The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.
R1	The duplicate RPD was greater than 20%. Visual inspection showed the sample to be non-homogeneous.
RD	RPD not applicable for results less than five times the reporting limit.
RH	The Relative Percent Difference (RPD) between two columns was greater than 40%, the higher result was reported.
RL	The Relative Percent Difference (RPD) between two columns was greater than 40%, the lower result was reported due to obvious interference with the higher result.
RP	MS/MSD RPD is greater than 20%
SR	Surrogate recovery outside control limits. See the surrogate page of the report.
SD	Unable to quantitate surrogate due to sample dilution.
SC	Sample not provided to laboratory in proper sampling container.
V	Volatile analysis was requested, sample container received with headspace.
X1	The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.
X	Sample was analyzed outside recommended holding times.
Y	The result for this parameter was greater than the TCLP regulatory limit.
Z	The pattern seen for the parameter being analyzed is not typical.

CHAIN OF CUSTODY

No. 090408

Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering Grp.	CONSULTANT'S ADDRESS: 1145 - 12th Ave NW, C4A, Issaquah, WA 98027		
BP SITE NUMBER: 11066	BP SITE / FACILITY ADDRESS: 2421 148th, Bellevue		CONSULTANT PROJECT NUMBER: 20-08-07-002
CONSULTANT PROJECT MANGER: Dave Cooper	PHONE NUMBER: 425 837-3944	FAX NUMBER: 425 837-8543	CONSULTANT CONTRACT NUMBER: H328865
BP CONTACT: Pete DeSantis	BP ADDRESS: Renton, WA	PHONE NUMBER: 425 251 8809	FAX NO.: 251-0736
LAB CONTACT: Andi Hoevet	LABORATORY ADDRESS: Durham, OR	PHONE NUMBER: 503 684-0447	FAX NO.: 620-0393
BP CONTACT REQUESTING RUSH TAT (Print BP Contact Name)	RUSH REQUESTED OF (Print Consultant Contact Name)	DATE/TIME	SHIPMENT DATE: 5/19/98	SHIPMENT METHOD: UPS

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 72 Hours ☒ Standard 7 or 14 Days

ANALYSIS REQUIRED

AIRBILL NUMBER: N198 6718433

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	WTPH-G	BTEX	MTBE	COMMENTS
MW5	15:05	5/19/98	Water	2	VOA		X	X	X	
MW4	15:35	↓	↓		↓		X	X	X	
MW9	16:25						X	X	X	
Trip Blank				1			X	X	X	

SAMPLED BY (Please Print Name): Bill Dougherty

SAMPLED BY (Signature): Bill Dougherty

RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)	DATE	TIME
Bill Dougherty	5/19/98	17:55		5/21/98	1015

ADDITIONAL COMMENTS: 98.0127 1

CLV-16722-A (2/97)
PKG/50

DISTRIBUTION: WHITE - ORIGINAL (WITH DATA) YELLOW - BP PINK - LAB BLUE - CONSULTANT FIELD STAFF