

March 7, 1991

Department of Ecology 801 Summit View Yakima, WA 98902

Attn: Mike Cochran

Re: Bekins Facility on North 1st Street

Dear Mike,

In response to our conversation 3-5-91, I have enclosed a site map, soil containment area diagram, vicinity map with groundwater fluctuation data, and sampling analysis of soil and water samples taken from the tank pit excavation.

The work scope for the month of March primarily comprises of excavating existing contaminated soil and stockpiling in a soil containment area of a design similar to that which was enclosed. Per your (D.O.E.) approval it will be farmed on site in this containment area. The estimated amount to be farmed is 100 cubic yards. It is anticipated that one year will suffice to bring contamination concentrations down to acceptable levels. Historically the indicated on the ground water fluctuation data. low water table is during the late winter, early spring months. Therefore, it is Chempro's intention to take this opportunity to excavate as much contaminated soil as possible during the low water table period. Also, at that time soil and water samples will be obtained from the tank excavation to determine if further remediation is necessary. The enclosed sample analyses is preliminary information, the sampling scheme to be implemented after excavation of soil during the March work scope will include: BTEX method 8240, TPH 418.1, TCLP lead, should the D.O.E. have any further guidance regarding sample analysis methods or other concerns feel free to call me directly at (206) 682-4898.

Sincerely,

Pete Vandervelde Operations Supervisor

Vandenelde

PV/jh



May 7, 1990

Mr. Marc Knight Chempro Environmental Services 3400 East Marginal Way South Seattle, Washington 98134

Dear Marc:

I have enclosed the analytical results for the water sample submitted to Alden Analytical Laboratories on May 2, 1990. The sample was analyzed for BETX using Method 8240.

My signature below authorizes the release of the data from the laboratory. If you have any questions pertaining to the analysis of this sample, please contact me at 623-3660.

Sincerely,

John M. Buerger Laboratory Manager

**Enciosures** 



## REPORT OF ANALYTICAL RESULTS

Client: Chempro

Client Sample Number: 050-2A

Date of Sample Receipt: 5/2/90

Date of Sample Extraction: N/A

Date of Sample Analysis: 5/3/90

Alden Job Number: 9005001/1

Alden Sample Number: 3768B

Analysis Method: 8240

Matrix: Water

Reporting Units: ug/L

ompound Name	Detection Limit	Result	Qualifier
Benzene	5.0	31	
Toluene	5.0	440	
Ethylbenzene	5.0	85	
m,p-Xylene**	. 25	3400	
o-Xylene	25	2600	

<sup>\*\*</sup> m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



April 26, 1990

Mr. Marc Knight Chempro Environmental Services 3400 East Marginal Way South Seattle, Washington 98134

## Dear Marc:

I have enclosed the analytical results for two of the eight soil samples submitted to Alden Analytical Laboratories on April 10, 1990. As per your request, samples BETX-1-North and BETX-1-Bottom were analyzed for BTEX using Method 8240. The remaining samples have been stored until we receive further direction.

My signature below authorizes the release of the data from the laboratory. If you have any questions pertaining to the analysis of this sample, please contact me at 623-3660.

Sincerely,

Jøhn M. Buerger Laboratory Manager

Enclosures



## REPORT OF ANALYTICAL RESULTS

Client: Chempro

Client Sample Number: BETX-1-North

Date of Sample Receipt: 4/10/90

Date of Sample Extraction: N/A

Date of Sample Analysis: 4/10/90

Alden Job Number: 9004008/1 Alden Sample Number: 3644

Analysis Method: 8240

Matrix: Soil

Reporting Units: ug/kg

ompound Name	Detection Limit	Result	Qualifier
Benzene	1.0	870	
Toluene	1.0	5100	
Ethylbenzene	1.0	1100	
m,p-Xylene**	1.0	7900	
c-Xylene	1.0	3800	

<sup>\*\*</sup> m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



## REPORT OF ANALYTICAL RESULTS

Client: Chempro

Client Sample Number: BETX-1-Bottom

Date of Sample Receipt: 4/10/90

Date of Sample Extraction: N/A

Date of Sample Analysis: 4/10/90

Alden Job Number: 9004008/1 Alden Sample Number: 3647

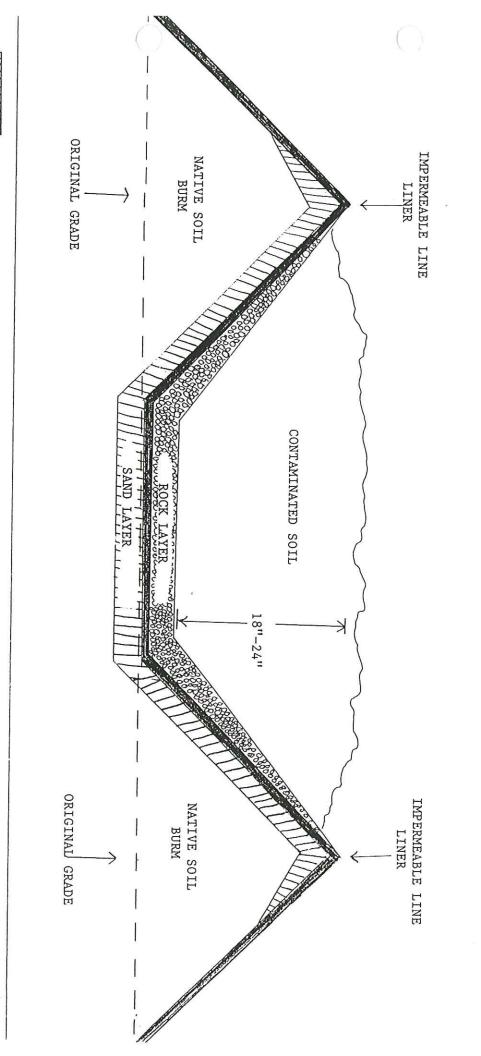
Analysis Method: 8240

Matrix: Soil

Reporting Units: ug/kg

Compound Name	Detection Limit	Result	Qualifier
Benzene	1.0	< 4.0	
Toluene	1.0	< 4.0	
Ethylbenzene	1.0	< 4.0	
ra,p-Xylene**	1.0	1300	
o-Xylene	1.0	1500	

<sup>\*\*</sup> m-Xylene and p-xylene cannot be separated and are reported here as a total of the two isomers.



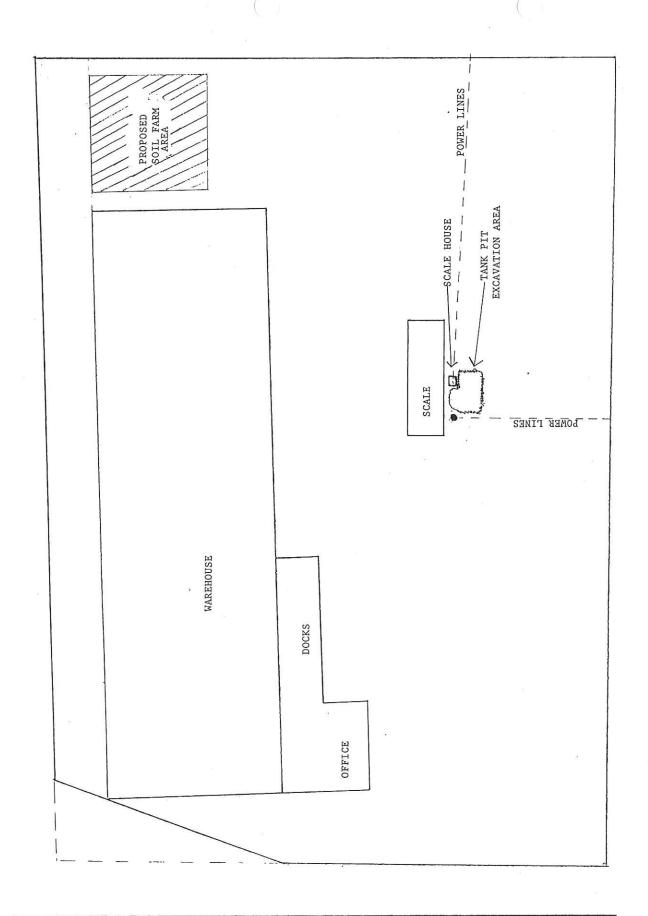
HELENIE - IMPERMEABLE LINER

-ROCK LAYER

YAKIMA FACILITY 90E050-2R

BEKINS

-SAND LAYER



M8	Nov 20, 1986	11.32 M9	Nov 20, 1986	11.28 M10	Nov 20, 1986	11.03
	Dec 17	11.75	Dec 17	11.62	Dec 17	11.41
	Jan 20, 1987	11.92	Jan 20, 1987	11.70	Jan 20, 1987	11.61
	Feb 17	11.81	Feb 19	11.71	Feb 17	11.50
	18	11.82	Mar 16	11.53	Mar 16	11.32
	Mar 16	11.64	Apr 22	11.13	Apr 22	10.95
	Apr 22	11.14	1/3			20.00
	ade. = sins terreside					
M11	Nov 20, 1986	10.89 M12	Nov 19, 1986	11.13 M13	Nov. 10 1006	11 15
	Dec 17	11.23	Dec 17		Nov 19, 1986	11.15
	Jan 20, 1987	11.45	Jan 20, 1987	11.46	Dec 17	11.58
	Feb 17	11.35	Feb 17	11.63	Jan 20, 1987	11.83
	Mar 16			11.57	Feb 17	11.72
		11.19	Mar 16	11.40	Mar 16	11.53
	Apr 22	10.87	Apr 22	11.05	Apr 22	11.17
	Mar 17, 1989	11.56	Mar 18, 1989	11.69	Mar 16, 1989	11.90
M1 4	No. 20 1002	0.50 ***				
M14	Nov 20, 1986	9.58 M16	Nov 19, 1986	10.99 M17	Nov 20, 1986	11.35
*)	Dec 17	9.88	Dec 17	11.42	Dec 17	11.73
	Jan 20, 1987	10.09	Jan 20, 1987	11.63	Jan 20, 1987	11.97
	Feb 17	9.92	Feb 17	11.52	Feb 17	11.86
	18	9.93	Mar 16	11.34	Mar 16	11.64
	Mar 16	9.76	Apr 22	10.80	Apr 22	11.12
	Apr 22	9.43	Mar 18, 1989	11.59	Mar 17, 1989	12.02
	Mar 16, 1989	10.14				
				:(4)		
M18	Nov 20, 1986	10.99 M19	Nov 20, 1986	11.38 M20	Nov 20, 1986	11.21
	Dec 17	11.36	Dec 17	11.69	Dec 17	11.62
	Jan 20, 1987	11.58	Jan 20, 1987	11.90	Jan 20, 1987	11.88
	Feb 17	11.46	Feb 17	11.77	Feb 17	11.75
	Mar 16	11.26	Mar 16	11.61	Mar 16	11.53
	Apr 22	10.84	Apr 22	11.16	Apr 22	10.92
	Mar 17, 1989	11.70	Mar 15, 1989	12.08	Mar 17, 1989	12.00
					• 1 3000	
M21	Nov 20, 1986	11.49 M22	Nov 20, 1986	10.79 M23	Nov 20, 1986	10.10
	Dec 17	11.88	Dec 17	11.03	Dec 17	10.39
	Jan 20, 1987	12.15	Jan 21, 1987	11.33	Jan 22, 1987	10.60
	Feb 17	11.90	Feb 17	11.13	Feb 18	10.53
	Mar 16	11.71	Mar 16	10.95	Mar 16	
	Apr 22	11.31	Apr 22	10.47	Apr 22	10.32
				10.47	and the second	10.02
					Mar 16, 1989	10.64
M24	Nov 20, 1986	9.11 M25	Nov 20, 1986	0 35 Mae	Nov. 20 1000	0.00
	Dec 17	9.40		9.35 M26	Nov 20, 1986	9.38
	Jan 22, 1987		Dec 17	9.66	Dec 17	9.65
		9.66	Jan 22, 1987	9.94	Jan 22, 1987	9.91
	Feb 18	9.58	Feb 18	9.81	Feb 18	9.84
	Mar 16	9.54	Mar 16	9.58	Mar 16	9.63
	Apr 22	9.05	Apr 22	9.26	Apr 22	9.33

SURPRISIONAL CONTA

M27	Nov 20, 1986	9.73	M28	Nov 20, 1986	13.69	M29	Nov 20, 19	86 10.19
	Dec 17	9.91		Dec 17	14.24		Dec 17	10.37
	Jan 22, 1987	10.20		18	14.19		Jan 22, 19	
	Feb 18	10.14		Jan 22, 1987	14.19		Feb 18	10.65
	Mar 16	9.92		Feb 18	14.13		Mar 16	10.56
	Apr 22	9.67		Mar 16	13.88		Apr 22	10.24
	Mar 16, 1989	9.21		Apr 22	13.35		Mar 15, 19	
	Control of the Control			Mar 15, 1989	13.97		1.01 10, 10	10.01
M30	Nov 20, 1986	9.94	M31	Nov 20, 1986	10.74	M33	Nov 20, 19	86 9.15
	Dec 17	10.20		Dec 17	10.99		Dec 18	9.46
	Jan 22, 1987	10.32		Jan 22, 1987	11.19		Jan 22, 19	87 9.64
	Feb 18	10.33		Feb 18	11.14		Feb 18	9.59
	Mar 16	10.23		Mar 16	10.92		Mar 16	9.44
	Apr 22	9.90		Apr 22	10.65		Apr 23	9.27
	Mar 14, 1989	10.47		Mar 15, 1989	11.31		: <u>-</u> .	
M34	Nov 20, 1986	8.19	M35	Nov 20, 1986	11.22	D32	Jul 28, 19	86 8.15
	Dec 18	8.37		Dec 17	11.47		Sep 22	8.07
	Jan 22, 1987	8.51		Jan 22, 1987	11.71		Nov 20	11.61
	Feb 18	8.52		Feb 18	11.41		Dec 17	12.04
	Mar 16	8.33		Mar 16	11.44		Jan 21, 19	87 12.36
	Apr 23	8.24		Apr 23	11.17		Feb 18	12.23
	Mar 14, 1989	8.65					Mar 16	11.94
							Apr 23	9.09
1400			orania i	As pallo entreposo				
M36	May 14, 1986	9.46	M37	May 14, 1986	9.05	M38	Nov 20, 19	86 8.17
	Jun 23	9.08		Jun 23	8.78		Dec 17	9.41
	Jul 28	9.01		Jul 28	8.76		Jan 22, 19	87 8.80
	Sep 22	8.71		Sep 22	8.45		Feb 18	9.34
	Nov 19	10.64		Nov 20	11.34		Mar 16	9.13
	Dec 17	11.17		Dec 17	10.82		Apr 23	9.11
	18	11.17		Jan 22, 1987	10.78			
	Jan 20, 1987	11.36		Feb 18	10.73			
	Feb 17	11.29		Mar 16	10.56			
	Mar 16	12.28		Apr 22	10.35			
	Apr 22	11.94						
M39	Jan 20, 1987	11.02	M40	Jan 21, 1987	10 05			
1100	Feb 18	11.02	1740		12.85			
	Mar 16	10.81		Feb 18	11.89			
	Apr 23	10.69		Mar 16	11.73			
	npi 23	10.08		Apr 23	11.70			

SUBJECT TO SICH DATA

Table 12.--Observed water levels in observation and domestic wells.

[water levels are in feet below land surface (Table 2)].

SUPPL	W.
VE	DVISIONAL DATA TO REVISION
	TELISON DA
	·UN

Well ident- ifier	Da	te	Water level	Well ident ifier	-	Dat	te	Water level	Well ident		Da	te	Wate leve	
M1-82	Feb 21	, 1985	11.37	M2-82	Feb	21,	1985	11.48	M3-82	Feb	21,	1985	10.05	
	May 11		10.57		May	11		10.55		May	11		9.23	
	Aug 29		8.84		Aug	29		9.47		Aug	29		8.05	
	Apr 23	, 1986	10.00		Apr	23,	1986	9.88		Apr	23,	1986	8.61	
	May 14		9.36		May	14		9.12		May	14		7.96	
	Jun 23		9.00		Jun			8.54		Jun	23		7.51	
	Jul 28		8.91		Jul			8.40		Jul	28		7.45	
	Sep 22		8.69		Sep	22		8.25		Sep	22		7.23	
	Nov 19		11.12		Nov			11.01		Nov	19		9.76	
	Dec 17		11.46		Dec			11.40		Dec	17		10.03	
	Jan 20	All marchenia	11.67				1987	11.60		Jan	22,	1987	10.23	
	Feb 17		11.58		Feb			11.46		Feb			10.15	
	Mar 16		11.39		Mar			11.32		Mar			9.96	
	Apr 22		11.05		Apr			10.86		Apr		Participation Section	9.67	
					Mar	18,	1989	11.65		Mar	18,	1989	10.16	
M1-85	Feb 21	, 1985	12.91	M2-85	Feb	20,	1985	6.22	M3-85	Feb	20,	1985	7.98	
	May 10		11.58			21		6.27			21		8.07	
	Jun 09		9.37		May	10		6.11		May	11		7.60	
	Aug 02		9.84		Jun			5.37		Jun	09		6.64	
	29		9.95		Aug			5.66		Aug	02		7.14	
	30		9.69			29		5.72			29		7.28	
	Sep 21		9.68			30		5.58			30		7.04	
	Oct 16		10.91		Sep			5.57		Sep			6.98	
	Nov 15		11.86		Oct			5.44		Oct			6.51	
	Dec 13	16.00	12.69		Nov			6.29		Nov			7.20	
	Jan 24	, 1986	12.24				1986	6.06		Dec			8.00	
	Feb 21		11.99		Feb			5.87				1986	8.10	
	Mar 20		11.59		Mar			5.67		Feb			7.88	
	Apr 23		10.58		Apr			5.67		Mar			7.76	
	May 14		9.72			200 m	1986	5.67		Apr			7.40	
	Jun 23		9.11		Jun			6.34		May			6.86	
	Jul 28		9.00		Jul			6.60		Jun			7.13	
	Sep 22		8.96		Sep			5.51		Ju1			7.17	
	Nov 20		12.48		Nov			6,62		Sep			6.44	
	Dec 17 Jan 21	1097	12.85		Dec		1007	7.04		Nov			8.96	
	Feb 18	, 150/	13.17		Jan		190/	7.18		Dec		1007	8.68	
	Mar 16		13.05		Feb			6.64			-2-51/1900	1987	8.66	
	Apr 23		12.75 12.25		Mar			6.24		Feb			8.59	
	Mar 13,	1080	13.33		Apr Mar			6.66 9.14		Mar	TO		8.40	

M4-85	Feb 20,	1985	8.95	M5-85	Feb	20,	1985	5.39	M6-85	Feb	20,	1985	7.55
	21		8.95			21		5.38			21		7.55
	May 11		7.91		May	10		5.17		May	10		7.25
	Jun 09		5.83		Jun	09		4.69		Jun	09		6,61
	Aug 02		6.12		Aug	02		5.04		Aug	02		7.14
	29		6.31			29		5.13			29		7.48
	30		6.07			30		4.91			30		6.89
	Sep 21		6.04		Sep	21		4.89		Sep	21		6.88
	Oct 16		7.10		Oct			4.67		Oct	16		6.66
	Nov 15		8.09		Nov			5.23		Nov	15		7.88
	Dec 13	1000	8.90		Dec		2222	5.39		Dec			8.01
	Jan 24,	1986	8.69			2000	1986	5.05				1986	7.64
	Feb 21		8.58		Feb		1000	4.90		Feb			7.36
	Mar 20		8.15				1986	4.85		Mar			7.25
	Apr 23		6.96		Apr			5.02		Apr			7.14
	May 14 Jun 23		6.07 5.40		May			4.79		May			6.70
	Jul 28		5.07		Jun Ju1			5.02		Jun Jul			7.16
	Sep 22		4.94		Sep			5.10 4.56		Sep			7.34 6.37
	Nov 20		8.55		Nov			5.30		Nov			7.72
	Dec 17		8.98		Dec			5.49		Dec			8.11
	Jan 21,	1987	9.26				1987	5.56				1987	8.31
	Feb 17		9.04		Feb			5.48		Feb		1007	8.03
	Mar 16		8.92		Mar			5.32		Mar			7.87
	Apr 23		8.27		Apr			5.46		Apr			7.93
					Mar	13,	1989	5.64		A		1989	8.52
M7-85	Feb 20,	1985	7.40	M8-85	Feb	20,	1985	9.47	M9-85	Feb	20,	1985	9.81
	21		7.43		10.000	21		9.49			21		9.81
	May 11		7.13		May			8.92		May			9.07
	Jun 09		6.09		Jun			7.92		Jun			7.88
	Aug 02		6.72		Aug			8.43		Aug			8.22
	29		6.79			29		8.50			29		8.32
	30 Sep 21		5.63		Com	30		7.33		<b>a</b>	30		8.11
	Oct 16		6.09		Sep			7.93		Sep			8.02
	Nov 15		6.40 7.42		Oct Nov			8.38		Oct			8.43
	Dec 13		7.66		Dec			8.99		Nov			9.19
	Jan 24,	1986	7.14				1986	9.29 9.17				1986	9.50
	Feb 21	1000	7.07		Feb		1300	9.07		Feb	Section 2	1900	9.65
	Mar 20		6.89				1986	8.73		Mar			9.52 9.18
	Apr 23		6.83		Apr		1000	8.56		Apr			8.63
	May 14		6.13		May			8.08		May			7.96
	Jun 23		6.40		Jun			8.04		Jun			7.75
	Jul 28		6.63		Ju1			8.04		Jul			7.65
	Sep 22		5.84		Sep			7.45		Sep			7.20
	Nov 20		7.40		Nov			9.07		Nov			9.53
	Dec 17		7.78		Dec			9.31		Dec			9.92
	Jan 22,	1987	7.93				1987	9.48				1987	10.12
	Feb 18		7.75		Feb	18		9.42		Feb	675 Date -		9.98
	Mar 16		7.62		Mar	16		9.22		Mar			9.86
	Apr 23		7.65		Apr	23		9.18		Apr			9.58
	Mar 14,	1989	8.05		Mar	14,	1989	9.59		Mar	15,	1989	10.37

SUBJECT TO REVISION

ESO

46, 37, 35, "

IMPERVIOUS SURFACES (paved aveas and buildings)

WATER WELL LOCATION AND IDENTIFICATION

VT23 Temporary

OD7 Domestic

SOIL-GAS WELL LOCATION AND IDENTIFICATION

M5-85

OSG3 Multi-depth

OSGT3 Temporary



Street

1 0 D2 0 D2

46<sub>,</sub> 37 35"

