

Saltbush

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July 3, 2002

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Mr. Mitch Shirazi
17824 118th Avenue Southeast
Renton, Washington 98058

**Re: Phase II Environmental Site Assessment
1518 58th Avenue Northeast, Tacoma, WA 98422
Saltbush Reference No. 020521431**

Dear Mr. Shirazi:

This letter report documents the limited soil investigation conducted on the noted property on May 22, 2002 by Saltbush Environmental Services, Inc. (Saltbush). This project was performed to approximate the depth and extent of the subject property that may have been impacted by the Coski Industrial Dump site, a now-defunct landfill operation adjacent to and partially within the subject.

A total of eight test pits were dug on the subject property to an approximate depth of 15-feet below ground surface (bgs) or until native soil was encountered. See the attached Map of Test Pits and Sample Locations. A Case 580 Super L backhoe was used to dig the test pits and the soil samples were collected from the backhoe bucket. The soil was field-screened with a photoionization detector. The soil was then visually characterized as well as noting any odors. All soil samples were collected with clean, stainless steel spoons into clean, laboratory-supplied 4-ounce glass sample jars. The soil is generally fine-grained, ranging from clay to silty sand with occasional glacial cobbles and gravel. Various solid wastes were observed in the test pits, which are consistent with the past property use of a portion of the subject as an industrial dump from the 1960's to 1985. These solid wastes included automobile parts, cut timber, and demolition debris. Ground water was not observed in any of the test pits.

Soil removed from test pit number 1 included automobile parts debris, creosote-treated poles and other wood debris. Also present was an unknown white-light blue material that may possibly have been sheet rock. Test pit number 2 contained similar material to that seen in the first test pit but included mostly woody debris. Treated wood was present in minor amounts. Soil from test pit numbers 3 and 4 were primarily homogeneous in color and appearance with no debris observed. Test pit number 5 yielded reinforced concrete debris with creosote-treated logs deeper in the pit. Test pit number 6 contained concrete debris and cedar fragments. Treated wood was not observed. A large vehicle tire was also excavated from this pit. Test pit number 7 had abundant wood fragments. These fragments appeared to be primarily land-clearing debris with some milled wood characteristic of wood building demolition debris. Test pit number 8 also contained wood debris similar to that found in pit number 7. It also yielded a vehicle tire.

With the exception of test pit number 1, the materials found in the remainder of the test pits appear to be closely associated with demolition and land clearing debris rather than to the characteristic automotive fill uncovered in the other areas of the Coski Industrial Dump site. Treated wood appeared to be confined to test pit numbers 1 and 5.

Saltbush Environmental Services, Inc.

Four soil samples from test pit numbers 1, 5, and 6 were collected at depths of 5 to 10 feet bgs. Sample numbers 1431-2-2 and 1431-2-3 were obtained from test pit number 1. Sample numbers 1431-2-4 and 1431-2-5 were collected from test pit numbers 5 and 6, respectively. These soil samples were submitted to the ESN Chemistry Laboratory for heavy metals analysis for lead, cadmium, chromium, arsenic, and mercury. The four samples were also screened for petroleum hydrocarbons using the NWTPH-HCID method. The analytical results are included in the tables below. Sample numbers 1431-2-2 and 1431-2-3 were reanalyzed using the NWTPH-Dx/Dx Extended method because hydrocarbons were present as indicated by the NWTPH-HCID method.

One soil sample (1431-2-4) was submitted to the laboratory to analyze for polychlorinated biphenyls (PCBs) and volatile organic compounds (VOCs). PCBs were not detected in the soil sample. Of the VOCs, only two compounds were detected. Chlorobenzene and p-Dichlorobenzene were detected at levels above laboratory detection limits but were at substantially lower concentrations than the applicable state MTCA Method B cleanup levels.

Table 1. Analysis of Soil Samples for Hydrocarbons by NWTPH-HCID

Test Pit No.	Sample ID/Collection Depth (Feet)	Gasoline (mg/kg)	Diesel (mg/kg)	Heavy Oil (mg/kg)	Mineral Oil (mg/kg)
1	1431-2-2 /10	nd	nd	D	nd
3	1431-2-3/ 5	nd	nd	D	nd
4	1431-2-4/10	nd	nd	nd	nd
5	1431-2-5/ 6	nd	nd	nd	nd
MTCA Cleanup Level*		100**	2,000	2,000	2,000

* August 2001 MICA Method A cleanup standard for unrestricted land use

**Applicable for Gasoline mixtures without Benzene and a total of Toluene, Ethylbenzene and Xylene are less than 1% of the Gasoline mixture

D indicates detected above the listed detection limit

nd indicates the analyte was not detected

Table 2. Analysis of Soil Samples for Diesel and Oil (NWTPH-Dx/Dx Extended)

Sample ID/Collection Depth (Feet)	Diesel (mg/kg)	Oil (mg/kg)	Mineral Oil (mg/kg)
1431-2-2 /10	nd	140	nd
1431-2-3/ 5	nd	170	nd
MTCA Cleanup Level*	2,000	2,000	4,000

* August 2001 MICA Method A cleanup standard for unrestricted land use

nd indicates the analyte was not detected

Table 3. Analysis of Soil Samples for Heavy Metals by EPA-7000 Series

Sample ID/Collection Depth (Feet)	Lead (Pb) EPA 7420 (mg/kg)	Cadmium (Cd) EPA 7130 (mg/kg)	Chromium (Cr) EPA 7190 (mg/kg)	Arsenic (As) EPA 7061 (mg/kg)	Mercury (Hg) EPA 7471 (mg/kg)
1431-2-2 /10	260	20	nd	nd	nd
1431-2-3/ 5	450	65	91	nd	nd
1431-2-4/10	2,500	nd	nd	nd	nd
1431-2-5/ 6	58	nd	nd	nd	nd
MTCA Cleanup Level*	250	2	19/2,000**	20	2

* August 2001 MTCA Method A cleanup standard for unrestricted land use.

**The first value represents the MCTA Method A cleanup level for chromium VI and the second value is the cleanup level for chromium III
nd indicates the analyte was not detected

The map of test pit and sample locations shows the approximate extent of the fill material. The owner had previously dug test pits to assess the suitability of onsite sewage disposal. These test pits are located north of test pit numbers 7 and 8. The owner indicated that these test pits exhibited no fill material. A Saltbush representative confirmed this observation during a site visit on April 24, 2002. Saltbush personnel also subsequently visited the site to obtain location coordinates with a GPS unit for all of the test pits. Based on these observations and the information gathered from this study, we estimate the extent of the fill material as being delineated by a dashed line extending eastward as shown on the map. The east extent is not as well defined due to lack of additional pits in this area.

Table 4. Geographic Coordinates of Test Pits (6/13/02)

Test Pit Number or ID	Location	Latitude	Longitude	Presence of Fill Material
1	Southwest Property Corner	N 47° 16' 13.6"	W 122° 21' 5.9"	Yes
2	~29ft. east of # 1	N 47° 16' 13.1"	W 122° 21' 5.0"	Yes
3	~ 38ft. east of #2	N 47° 16' 13.2"	W 122° 21' 4.1"	No
4	~25ft. east of #3	N 47° 16' 13.1"	W 122° 21' 3.7"	No
5	~19ft. north of # 5	N 47° 16' 13.4"	W 122° 21' 4.1"	Yes
6	~22ft northeast of # 5	N 47° 16' 13.6"	W 122° 21' 4.2"	Yes
7	~32 ft. northwest of # 6	N 47° 16' 14.0"	W 122° 21' 4.5"	Yes
8	~ 38ft. west of # 7	N 47° 16' 15.2"	W 122° 21' 5.2"	Yes
owner's test pit 1		N 47° 16' 17.1"	W 122° 21' 4.7"	No
owner's test pit 2		N 47° 16' 15.5"	W 122° 21' 5.1"	No

Based on the observations and data presented herein, we recommend that any planned development of the property be done in such a manner that does not disturb the filled areas. The filled area identified should be surveyed as needed to facilitate the implementation of effective management practices during property development.

This concludes the investigation and presentation of the material for the tasks associated with this limited study of the noted site. The contents of this letter report are confidential. Opinions and recommendations contained in this report apply to conditions existing when services were performed. Since site conditions and regulations beyond our control could change at any time after the completion of our site visits, we are not responsible for the impact of any changes in environmental conditions, standards, practices or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report

Thank you for allowing us the opportunity to be of service to you. We will be pleased to assist with any further requirements that may be necessary for this property.


Very truly yours,

Saltbush Environmental Services, Inc.



John Mefford
Project Manager

JM:nop

QC: 

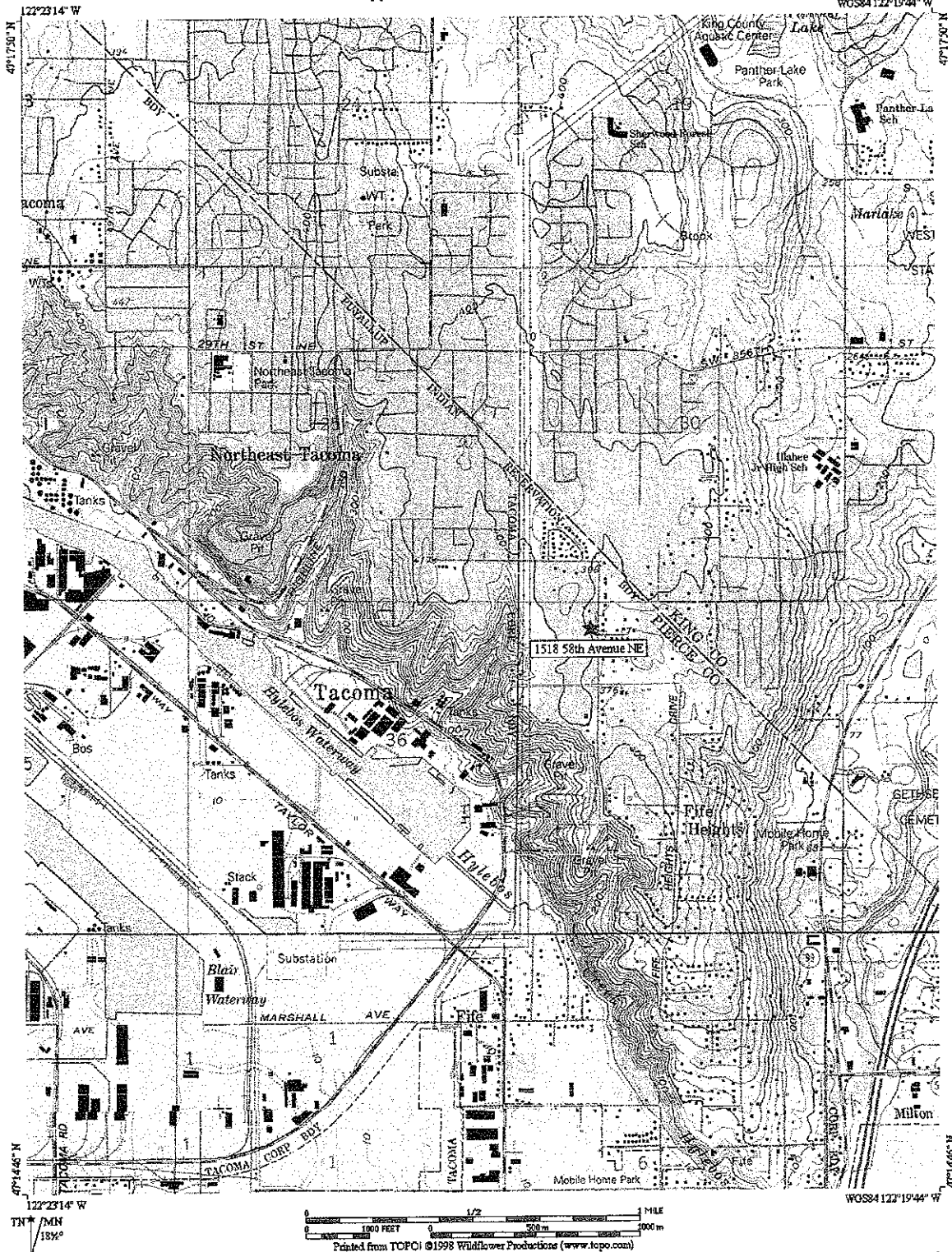
Enclosures a/s

1431-2\Phase II Letter Report.doc

The 1518 58th Avenue Northeast Project

Saltbush Reference No. 0205214331

TOPCOI map printed on 05/29/02 from 'Seattle topo' and 'Untitled.rpg'




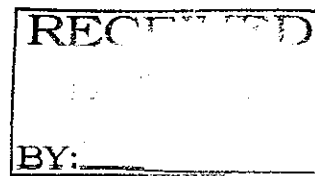
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MAP OF SOIL TEST PITS AND SAMPLING LOCATIONS



Note: Test pits are indicated by number. The estimated extent of the fill material is south of the dashed line.

	Saltbush Environmental Services, Inc. 805 Pacific Avenue P.O. Box 505 Tacoma, WA 98401-0505 Tel (253) 383-1914 Fax (253) 383-4525 Operations@Saltbush.com		The 1518 58th Avenue Northeast Project Tacoma, Washington 98422	
	Project Number: 020521431	Drawn By: John Mefford	Date: May 29, 2002	Scale: N/A Locations Estimated



June 10, 2002

John Mefford
Saltbush Environmental Services, Inc.
805 Pacific Avenue
Tacoma, WA 98401-0505

Dear Mr. Mefford:

Please find enclosed the analytical data report for the 1518 58th Avenue NE Project in Tacoma, Washington. Soil samples were analyzed for Hydrocarbon Identification by NWTPH-HCID, Diesel and Oil by NWTPH-Dx/Dx Extended, MTCA 5 Metals by Method 7000 series, PCB's by Method 8082, and Specific Halogenated Hydrocarbons and BTEX by Method 8021B on May 30 & June 3, 2002.

The results of these analyses are summarized in the attached table. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed.

ESN Northwest appreciates the opportunity to have provided analytical services to Saltbush Environmental Services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

A handwritten signature in cursive script that reads "Michael A. Korosec".

Michael A. Korosec
President

ESN NORTHWEST CHEMISTRY LABORATORY

THE 1518 58TH AVE NE PROJECT
Tacoma, Washington
Saltbush Environmental Services, Inc.
Client Project #02052-1431

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)	Mineral Oil (mg/kg)
Method Blank	6/3/02	83	nd	nd	nd
1431-2-2	6/3/02	102	nd	140	nd
1431-2-3	6/3/02	84	nd	1700	nd
Method Detection Limits			20	40	40

"nd" Indicates not detected at the listed detection limits

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Tim McCall

ESN NORTHWEST CHEMISTRY LABORATORY

THE 1518 58TH AVE NE PROJECT
 Tacoma, Washington
 Saltbush Environmental Services, Inc.
 Client Project #02052-1431

Hydrocarbon Identification by NWIPH-HCID for Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Gasoline (mg/kg)	Diesel (mg/kg)	Heavy Oil (mg/kg)	Mineral Oil (mg/kg)
Method Blank	5/30/02	101	nd	nd	nd	nd
1431-2-2	5/30/02	82	nd	nd	D	nd
1431-2-3	5/30/02	112	nd	nd	D	nd
1431-2-4	5/30/02	80	nd	nd	nd	nd
1431-2-5	5/30/02	72	nd	nd	nd	nd
Method Detection Limits			20	50	100	100

"nd" Indicates not detected at listed detection limits
 "D" Indicates detected above the listed detection limit
 "int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Tim McCall

ENVIRONMENTAL SERVICES NETWORK NORTHWEST, INC

THE 1518 58TH AVE NE PROJECT
 Tacoma, Washington
 Saltbush Environmental Services, Inc.
 Client Project #02052-1431

Heavy Metals in Soil by EPA-7000 Series

Sample Number	Date Analyzed	Lead (Pb)	Cadmium (Cd)	Chromium (Cr)	Arsenic (As)	Mercury (Hg)
		EPA 7420 (mg/kg)	EPA 7130 (mg/kg)	EPA 7190 (mg/kg)	EPA 7061 (mg/kg)	EPA 7471 (mg/kg)
Method Blank	6/3/02	nd	nd	nd	nd	nd
1431-2-2	6/3/02	260	20	nd	nd	nd
1431-2-3	6/3/02	450	65	91	nd	nd
1431-2-4	6/3/02	2500	nd	nd	nd	nd
1431-2-5	6/3/02	58	nd	nd	nd	nd
1431-2-5 Dup	6/3/02	71	nd	nd	nd	nd
Method Detection Limits		5	1	20	5	0.5

'nd' Indicates not detected at listed detection limits.

ANALYSES PERFORMED BY: Tim McCall

ENVIRONMENTAL SERVICES NETWORK NORTHWEST, INC

THE 1518 58TH AVE NE PROJECT
 Tacoma Washington
 Saltbush Environmental Services, Inc
 Client Project #02052-1431

QA/QC Data - Total Metals EPA-7000 Series Analyses

Sample Number: 1431-2-5							
Matrix Spike			Matrix Spike Duplicate			RPD	
Spiked Conc (mg/kg)	Measured Conc (mg/kg)	Spike Recovery (%)	Spiked Conc (mg/kg)	Measured Conc (mg/kg)	Spike Recovery (%)	RPD (%)	
Lead	250	310	124	250	330	132	6.3
Cadmium	25	26	104	25	25	100	3.9
Chromium	250	259	104	250	232	93	11.0
Arsenic	63	54	86	63	56	89	3.6

Laboratory Control Sample			
Spiked Conc (mg/kg)	Measured Conc (mg/kg)	Spike Recovery (%)	
Lead	250	231	92
Cadmium	25	25	100
Chromium	250	265	106
Arsenic	63	65	104

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
 ACCEPTABLE RPD IS 20%

ANALYSES PERFORMED BY: Tim McCall

ESN SEATTLE CHEMISTRY LABORATORY
 (425) 957-9872, fax (425) 957-9904

ESN Job Number: S20603-4
 Client: SALT BUSH ENVIRONMENTAL SERVICES
 Client Job Name: 1518 58 AVE NE
 Client Job Number: 020521431

Analytical Results		MTH BLK		LCS		1431-2-4		MS	MSD	RPD
8082(PCBs), mg/kg		MTH BLK		LCS		1431-2-4		1431-2-4	1431-2-4	1431-2-4
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/03/02	06/03/02	06/03/02	06/03/02	06/03/02	06/03/02	06/03/02	06/03/02	06/03/02
Date analyzed	Limits	06/03/02	06/03/02	06/03/02	06/03/02	06/03/02	06/03/02	06/03/02	06/03/02	06/03/02
A1221	0.10	nd			nd					
A1232	0.10	nd	70%		nd	73%	69%			5%
A1242 (A1016)	0.10	nd			nd					
A1248	0.10	nd			nd					
A1254	0.10	nd			nd					
A1260	0.10	nd			nd					

Surrogate recoveries:

Tetrachloro-m-xylene	109%	116%	110%	105%	117%
Decachlorobiphenyl	104%	120%	105%	104%	119%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
 na - not analyzed
 C - coelution with sample peaks
 M - matrix interference
 J - estimated value
 Results reported on dry-weight basis
 Acceptable Recovery limits: 65% TO 135%
 Acceptable RPD limit: 35%

ESN Job Number: S20603-4
 Client: SALTBUSH ENVIRONMENTAL SERVICES
 Client Job Name: 1518 58 AVE NE
 Client Job Number: 020521431

Analytical Results

8021B, µg/kg		MTH BLK	LCS	1431-2-4
Matrix	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/03/02	06/03/02	06/03/02
Date analyzed	Limits	06/03/02	06/03/02	06/03/02
Chloromethane	250	nd		nd
Bromomethane	250	nd		nd
Vinyl chloride	250	nd		nd
Chloroethane	250	nd		nd
cis-1,2-Dichloroethene	250	nd		nd
1,1-Dichloroethene	250	nd		nd
Methylene Chloride	20	nd		nd
trans-1,2-Dichloroethene	250	nd		nd
1,1-Dichloroethane	250	nd		nd
Chloroform	50	nd		nd
1,1,1-Trichloroethane	50	nd		nd
Carbon tetrachloride	50	nd		nd
1,2-Dichloroethane	250	nd		nd
Trichloroethene	20	nd	71%	nd
1,2-Dichloropropane	250	nd		nd
Bromodichloromethane	250	nd		nd
cis-1,3-Dichloropropene	250	nd		nd
trans-1,3-Dichloropropene	250	nd		nd
Chlorobenzene	250	nd	91%	160
1,1,2-Trichloroethane	50	nd		nd
Tetrachloroethene	20	nd		nd
Dibromochloromethane	250	nd		nd
Bromoform	250	nd		nd
1,1,2,2-Tetrachloroethane	250	nd		nd
1,1,1,2-Tetrachloroethane	250	nd		nd
Bromobenzene	250	nd		nd
1,2,3-Trichloropropane	250	nd		nd
Dibromomethane(*)	5.0	nd		nd
m-Dichlorobenzene	50	nd		nd
p-Dichlorobenzene	50	nd		190
o-Dichlorobenzene	50	nd		nd
Benzene	20	nd	69%	nd
Toluene	50	nd	72%	nd
Ethylbenzene	50	nd		nd
Xylenes	50	nd		nd

*-instrument detection limit

Surrogate recoveries:

Bromochloromethane	115%	114%	115%
1,4-Dichlorobutane	107%	108%	101%
Bromochloropropane	95%	101%	93%
Trifluorotoluene	106%	101%	94%
Bromofluorobenzene	105%	105%	66%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

