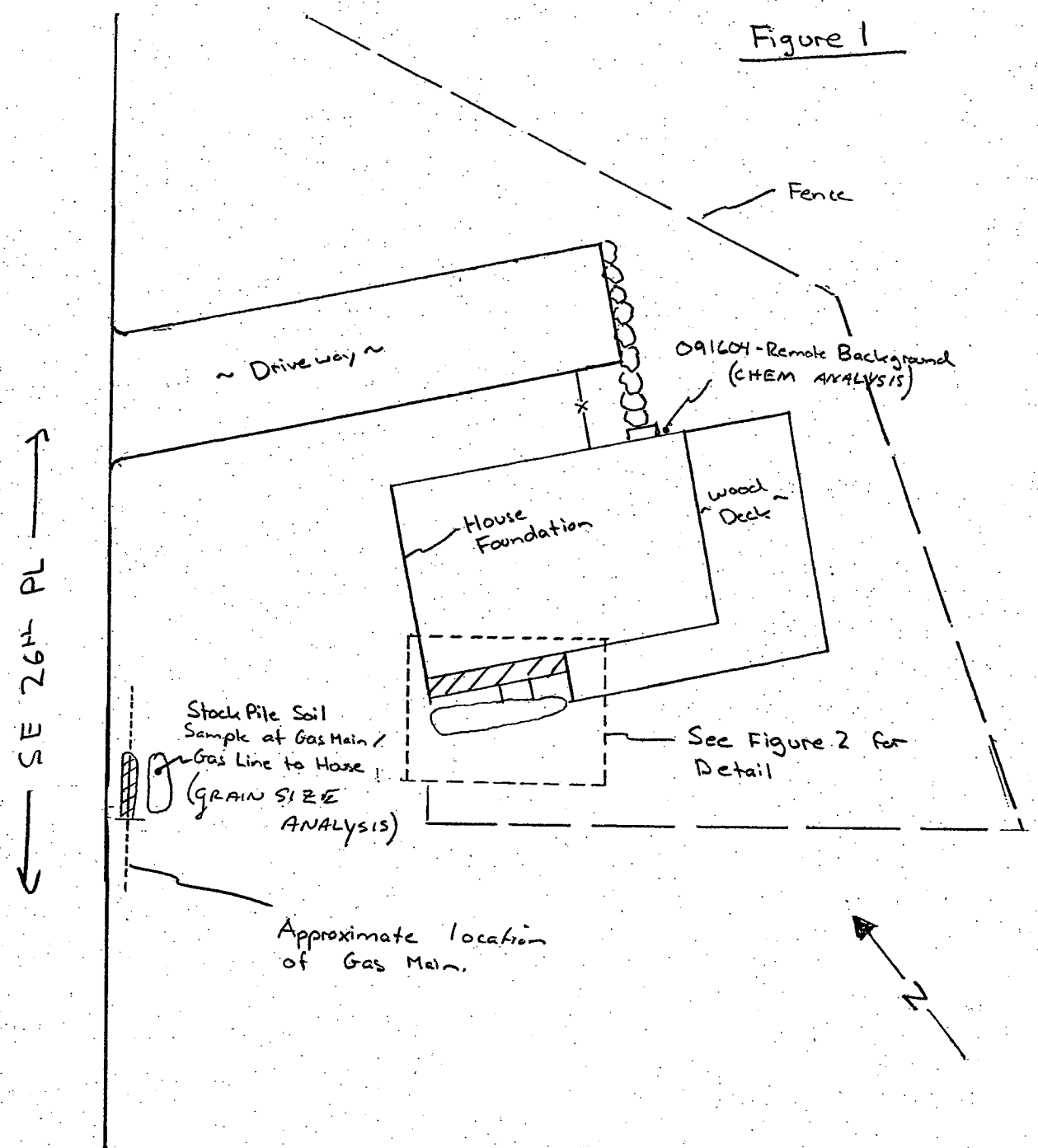



Figure 1



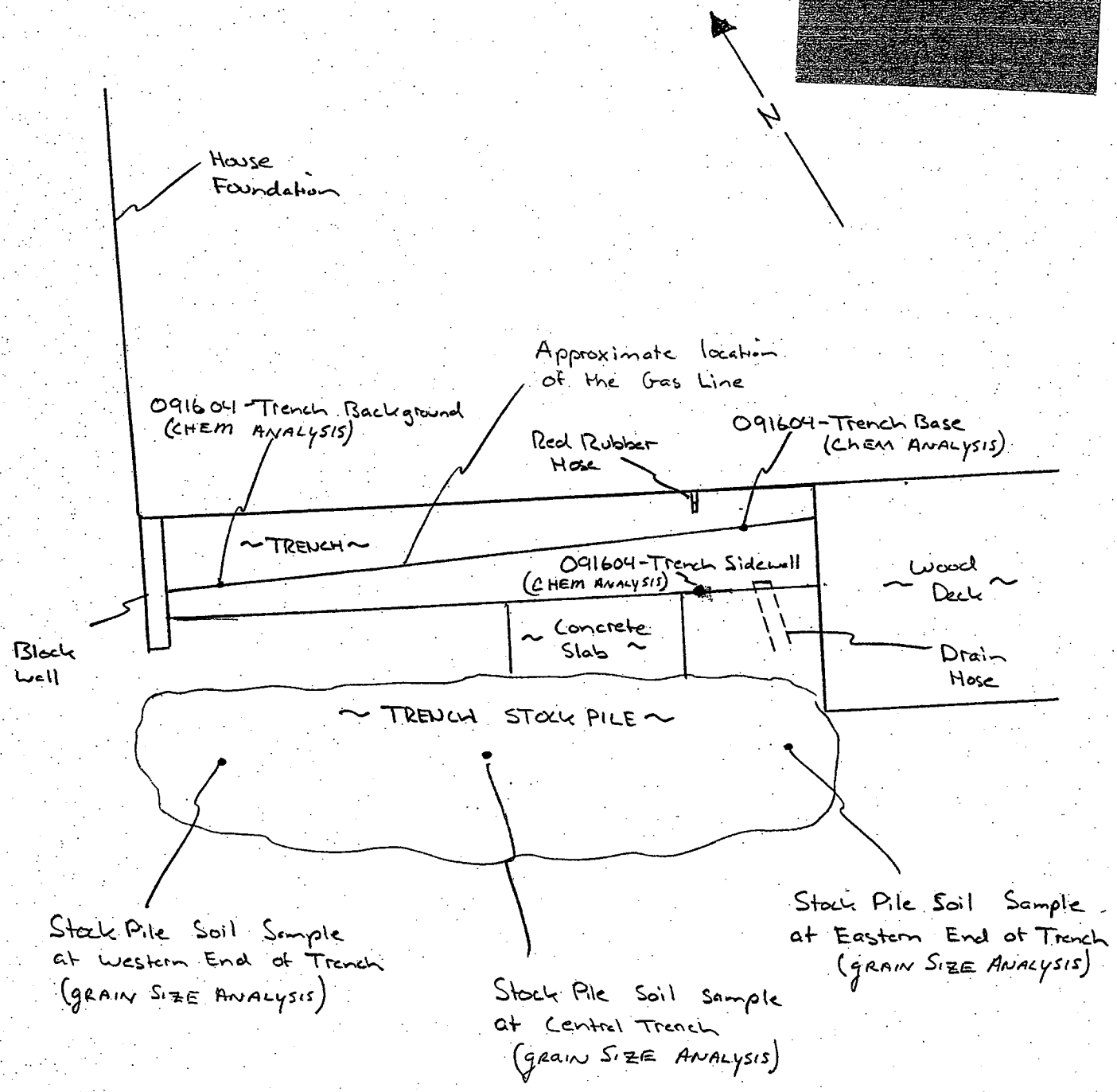
Notes

 = Approximate Area of Excavation

Scale = 1" : 20'

March 5, 2008  
Site only at this time  
0186-642-00

Figure 2



Scale = 1" : 4'

TABLE 1  
SOIL FIELD SCREENING AND CHEMICAL ANALYTICAL DATA<sup>1</sup>

16645 SE 26th Place  
Bellevue, Washington  
PUGET SOUND ENERGY  
GEI PROJECT NO. 0186-642-00

Sample Identification <sup>2</sup>	Date Sampled	Sample Depth (feet bgs) <sup>3</sup>	Water Sheen Screening	Photo Ionization Detection (ppm)	Total Alkalinity <sup>4</sup> (mg/kg)	Ammonia-Nitrogen <sup>5</sup> (mg/kg)	pH <sup>6</sup>	Sulfide <sup>7</sup> (mg/kg)	Soil Resistivity <sup>8</sup> (Ohms-cm)	Bromide <sup>9</sup> (mg/kg)	Chloride <sup>9</sup> (mg/kg)	Fluoride <sup>9</sup> (mg/kg)	Orthophosphate-Phosphorus <sup>9</sup> (mg/kg)
090304-Pipe Trench	09/03/04	--	NS	--	16.4	<25.0	5.95	<19.2	1910	<4.0	28.7	8.22	7.6
091604-Trench-Base	09/16/04	3.5	NS	80.5	43.5	<22.1	5.79	<97.7	4,540	<4.0	20.8	<2.0	<4.0
091604-Trench-Side Wall	09/16/04	3.0	NS	0	9.35	<25.0	5.39	<96.6	6280	<4.0	10.7	<2.0	<4.0
091604-Trench-Background	09/16/04	4.0	NS	0	39.7	<25.0	6.03	<94.4	13400	<4.0	7.07	<2.0	<4.0
091604-Remote-Background	09/16/04	1.5	NS	0	105	<25.0	6.23	<97.8	4610	<4.0	27.3	4.31	<4.0

Notes:

- <sup>1</sup> Chemical analyses by North Creek Analytical in Bothell, Washington
  - <sup>2</sup> Approximate sample locations are shown in Figures 1 and 2
  - <sup>3</sup> Sample depths are approximate and were recorded as depth beneath local ground surface
  - <sup>4</sup> Total alkalinity analyzed by Ecology method 310.1, modified
  - <sup>5</sup> Ammonia-nitrogen analyzed by Ecology method 350.3
  - <sup>6</sup> Acidity (pH) analyzed by Ecology method 9054C
  - <sup>7</sup> Sulfide analyzed by Ecology method 9030B
  - <sup>8</sup> Soil resistivity analyzed by Ecology method SM2510B
  - <sup>9</sup> Bromide, chloride, fluoride and orthophosphate-phosphorus analyzed by Ecology method 30010
- mg/kg = milligrams per kilogram  
ppm = parts per million  
bgs = below ground surface  
NS = no sheen



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11 November 2004

Paul Craig  
Geo Engineers - Redmond  
8410 154th Ave NE  
Redmond, WA/USA 98052

RE: PSE-Bellevue Explosion Investigation Site

Enclosed are amended results of analyses for samples received by the laboratory on 09/22/04 18:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Gerdes  
Project Manager



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Project: PSE-Bellevue Explosion Investigation Site  
Project Number: 0186-642-00  
Project Manager: Paul Craig

**Amended Report**  
Issued: 11/11/04 14:32

**ANALYTICAL REPORT FOR SAMPLES - Amended**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
090304-PIPE TRENCH	B4I0656-01	Soil	09/03/04 12:00	09/22/04 18:25

North Creek Analytical - Bothell

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Jeff Gerdes, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

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Geo Engineers - Redmond 8410 154th Ave NE Redmond, WA/USA 98052	Project: PSE-Bellevue Explosion Investigation Site Project Number: 0186-642-00 Project Manager: Paul Craig	<b>Amended Report</b> Issued: 11/11/04 14:32
-----------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------	-------------------------------------------------

**Conventional Chemistry Parameters by APHA/EPA Methods**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								

**090304-PIPE TRENCH (B4I0656-01) Soil** ... **Sampled: 09/03/04 12:00** ... **Received: 09/22/04 18:25**

Total Alkalinity	16.4	4.82	mg/kg wet	1	4I30059	09/30/04	09/30/04	EPA 310.1 Mod.	I-05
Ammonia-Nitrogen	ND	25.0	mg/kg as N wet	"	4I30051	09/30/04	09/30/04	EPA 350.3	
pH	5.95		pH Units	"	4I30061	"	"	EPA 9045C	
Sulfide	ND	19.2	mg/kg wet	"	4I27063	09/27/04	09/27/04	EPA 9030B	I-05

North Creek Analytical - Bothell

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-----------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------	-------------------------------------------------

**Conventional Chemistry by Standard Methods**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								

**090304-PIPE TRENCH (B4I0656-01) Soil** Sampled: 09/03/04 12:00 Received: 09/22/04 18:25

Resistivity	1910			Ohms-cm	1	4I30063	09/30/04	09/30/04	SM2510B	
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North Creek Analytical - Bothell

Jeff Gerdes, Project Manager

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-----------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------	-------------------------------------------------

**Anions by EPA Method 300.0**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**090304-PIPE TRENCH (B4I0656-01) Soil ... Sampled: 09/03/04 12:00 ... Received: 09/22/04 18:25**

Bromide	ND	4.00	mg/kg wet	1	4J03004	10/01/04	10/01/04	EPA 300.0	
Chloride	28.7	4.00	"	"	"	"	"	"	
Fluoride	8.22	2.00	"	"	"	"	"	"	
Orthophosphate-phosphorus	7.60	4.00	"	"	"	"	"	"	I-05

North Creek Analytical - Bothell

Jeff Gerdes, Project Manager

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 Project Number: 0186-642-00  
 Project Manager: Paul Craig

Amended Report  
 Issued: 11/11/04 14:32

**Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4I27063: Prepared 09/27/04 Using General Preparation**

**Blank (4I27063-BLK1)**

Sulfide	ND	20.0	mg/kg							
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**LCS (4I27063-BS1)**

Sulfide	104	20.0	mg/kg	112		92.9	75-125			
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**LCS Dup (4I27063-BSD1)**

Sulfide	102	20.0	mg/kg	112		91.1	75-125	1.94	25	
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**Duplicate (4I27063-DUP1)**

Source: B4I0656-01

Sulfide	ND	20.0	mg/kg wet		ND			NA	30	
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**Matrix Spike (4I27063-MS1)**

Source: B4I0656-01

Sulfide	37.2	16.2	mg/kg wet	90.9	ND	40.9	20-120			
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**Batch 4I30051: Prepared 09/30/04 Using General Preparation**

**Blank (4I30051-BLK1)**

Ammonia-Nitrogen	ND	0.500	mg/kg as N							
------------------	----	-------	------------	--	--	--	--	--	--	--

**LCS (4I30051-BS1)**

Ammonia-Nitrogen	4.93	0.500	mg/kg as N	5.00		98.6	75-125			
------------------	------	-------	------------	------	--	------	--------	--	--	--

**LCS Dup (4I30051-BSD1)**

Ammonia-Nitrogen	4.95	0.500	mg/kg as N	5.00		99.0	75-125	0.405	25	
------------------	------	-------	------------	------	--	------	--------	-------	----	--

**Duplicate (4I30051-DUP1)**

Source: B4I0656-01

Ammonia-Nitrogen	ND	25.0	mg/kg as N wet		5.44				30	
------------------	----	------	----------------	--	------	--	--	--	----	--

North Creek Analytical - Bothell

Jeff Gerdes, Project Manager

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Project: PSE-Bellevue Explosion Investigation Site  
 Project Number: 0186-642-00  
 Project Manager: Paul Craig

**Amended Report**  
 Issued: 11/11/04 14:32

**Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4I30051: Prepared 09/30/04 Using General Preparation**

**Matrix Spike (4I30051-MS1)**

Source: B4I0656-01

Ammonia-Nitrogen	239	25.0 mg/kg as N wet		233	5.44	100	33-168			
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**Batch 4I30059: Prepared 09/30/04 Using General Preparation**

**Duplicate (4I30059-DUP1)**

Source: B4I0425-01

Total Alkalinity	41.7	5.00 mg/kg dry			43.5			4.23	25	
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**Batch 4I30061: Prepared 09/30/04 Using General Preparation**

**Duplicate (4I30061-DUP1)**

Source: B4I0656-01

pH	5.60		pH Units		5.95			6.06	10	
----	------	--	----------	--	------	--	--	------	----	--

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Jeff Gerdes, Project Manager

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Geo Engineers - Redmond 8410 154th Ave NE Redmond, WA/USA 98052	Project: PSE-Bellevue Explosion Investigation Site Project Number: 0186-642-00 Project Manager: Paul Craig	<b>Amended Report</b> Issued: 11/11/04 14:32
-----------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------	-------------------------------------------------

**Conventional Chemistry by Standard Methods - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4I30063: Prepared 09/30/04 Using General Preparation**

**Duplicate (4I30063-DUP1)**

**Source: B4I0656-01**

Resistivity	1720		Ohms-cm		1910			10.5	30	
-------------	------	--	---------	--	------	--	--	------	----	--

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Project: PSE-Bellevue Explosion Investigation Site  
 Project Number: 0186-642-00  
 Project Manager: Paul Craig

Amended Report  
 Issued: 11/11/04 14:32

**Anions by EPA Method 300.0 - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4J03004: Prepared 10/01/04 Using General Preparation**

**Blank (4J03004-BLK1)**

Bromide	ND	4.00	mg/kg							
Chloride	ND	4.00	"							
Fluoride	ND	2.00	"							
Orthophosphate-phosphorus	ND	4.00	"							

**LCS (4J03004-BS1)**

Bromide	41.4	4.00	mg/kg	40.0		104	90-110			
Chloride	20.5	4.00	"	20.0		102	90-110			
Fluoride	8.41	2.00	"	8.00		105	90-110			
Orthophosphate-phosphorus	20.1	4.00	"	19.4		104	90-110			

**LCS Dup (4J03004-BSD1)**

Bromide	41.0	4.00	mg/kg	40.0		102	90-110	0.971	25	
Chloride	20.8	4.00	"	20.0		104	90-110	1.45	10	
Fluoride	8.65	2.00	"	8.00		108	90-110	2.81	10	
Orthophosphate-phosphorus	19.8	4.00	"	19.4		102	90-110	1.50	10	

**Duplicate (4J03004-DUP1)**

Source: B4I0656-01

Bromide	ND	4.00	mg/kg wet		ND			NA	25	
Chloride	25.5	4.00	"		28.7			11.8	25	
Fluoride	6.71	2.00	"		8.22			20.2	25	
Orthophosphate-phosphorus	9.76	4.00	"		7.60			24.9	25	

**Matrix Spike (4J03004-MS1)**

Source: B4I0656-01

Bromide	41.3	4.00	mg/kg wet	39.8	ND	104	75-125			
Chloride	47.5	4.00	"	19.9	28.7	94.5	62-157			
Fluoride	11.8	2.00	"	7.96	8.22	45.0	75-125			Q-01
Orthophosphate-phosphorus	18.9	4.00	"	19.3	7.60	58.5	64-117			Q-01

North Creek Analytical - Bothell

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Jeff Gerdes, Project Manager

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Geo Engineers - Redmond  
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Project: PSE-Bellevue Explosion Investigation Site  
Project Number: 0186-642-00  
Project Manager: Paul Craig

**Amended Report**  
Issued: 11/11/04 14:32

**Notes and Definitions**

- I-05 Since the sample was out of hold at the time of receipt, the preparation/analysis of the sample could not be initiated within the method-specified hold time.
- Q-01 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

North Creek Analytical - Bothell

Jeff Gerdes, Project Manager

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 541-383-9310 FAX 382-7588  
 3209 Denali St, Anchorage, AK 99503-4030  
 907-334-9200 FAX 334-9210

# CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: PSE		INVOICE TO:				
REPORT TO:		TURNAROUND REQUEST				
ADDRESS:		In Business Days *				
PHONE: 425-420-9200 FAX: 420-9210		<input type="checkbox"/> 10 STD. <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 Organic & Inorganic Analyses				
PROJECT NAME: PSE - W. N. Road Right of Way		<input type="checkbox"/> 5 STD. <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 Petroleum Hydrocarbon Analyses				
PROJECT NUMBER: 1020010		OTHER Specify:				
SAMPLED BY: PSE		* Turnaround Requests less than standard may incur Rush Charges.				
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA	W/O ID
1020010 Pse Right of Way	9/2/04	S.S.	1			
2						
3						
4						
5						
6						
7						
8						
9						
10						
RELEASED BY: [Signature]		DATE: 9/2/04		RECEIVED BY:		DATE:
PRINT NAME: [Name]		FIRM: PSE		PRINT NAME:		TIME:
RELEASED BY:		DATE:		RECEIVED BY:		DATE:
PRINT NAME:		FIRM:		PRINT NAME:		TIME:
ADDITIONAL REMARKS:		TEMP:		FIRM:		TIME:
COC REV 1/03		Page 1 of 1		Page 1 of 1		Page 1 of 1



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 503-906-9200 FAX 906-9210  
 541-383-9310 FAX 382-7588  
 907-334-9200 FAX 334-9210

# CHAIN OF CUSTODY REPORT

Work Order #: **B410656**

CLIENT: <b>PSE</b>		INVOICE TO: <b>Same</b>	TURNAROUND REQUEST		
REPORT TO: <b>Paul Craigs</b>		in Business Days *			
ADDRESS: <b>6410 NE 154th Ave Bellevue Wa, 98052</b>		Organic & Inorganic Analyses		<input type="checkbox"/> 1	
PHONE: <b>425 861 6600 FAX: 425 861 6050</b>		Petroleum Hydrocarbon Analyses		<input type="checkbox"/> 2	
PROJECT NAME: <b>PSE - Bellevue Explosion Investigation Site</b>		STD.		<input type="checkbox"/> 3	
PROJECT NUMBER: <b>0186-642-00</b>		OTHER Specify:		<input type="checkbox"/> 4	
SAMPLED BY: <b>PSE</b>		* Turnaround Requests less than standard may incur Rush Charge.		<input type="checkbox"/> 5	
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1 <b>090904 - Fire Trench</b>	9-3-04	Soil	1		-01
2					
3					
4					
5					
6					
7					
8					
9					
10					
RECEIVED BY:	DATE: 9-21-04	DATE:	FIRM: <b>NCA</b>	DATE: 9/22/04	
PRINT NAME: <b>Robert Trehan</b>	TIME: 1600	TIME:	PRINT NAME: <b>John Hoppers</b>	TIME: 1825	
RECEIVED BY:	DATE:	DATE:	FIRM:	DATE:	
PRINT NAME:	TIME:	TIME:	FIRM:	TIME:	
ADDITIONAL REMARKS:	<b>Strong odor. Please be cautious. Report Results to Paul Craigs</b>				
CCC REV 1/03	TEMP:	15.6		PAGE	OF
		wics			



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05 October 2004

Paul Craig  
Geo Engineers - Redmond  
8410 154th Ave NE  
Redmond, WA/USA 98052

RE: PSE-Bellevue Explosion Investigation Site

Enclosed are the results of analyses for samples received by the laboratory on 09/16/04 14:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Gerdes  
Project Manager





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Geo Engineers - Redmond 8410 154th Ave NE Redmond, WA/USA 98052	Project: PSE-Bellevue Explosion Investigation Site Project Number: 0186-642-00 Project Manager: Paul Craig	Reported: 10/05/04 09:51
-----------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------	-----------------------------

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
091604-TRENCH-BASE	B4I0425-01	Soil	09/16/04 11:15	09/16/04 14:00
091604-TRENCH-SIDE WALL	B4I0425-02	Soil	09/16/04 11:25	09/16/04 14:00
091604-TRENCH-BACKGROUND	B4I0425-03	Soil	09/16/04 11:55	09/16/04 14:00
091604-REMOTE-BACKGROUND	B4I0425-04	Soil	09/16/04 12:20	09/16/04 14:00

North Creek Analytical - Bothell

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Jeff Gerdes, Project Manager

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Geo Engineers - Redmond  
 8410 154th Ave NE  
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Project: PSE-Bellevue Explosion Investigation Site  
 Project Number: 0186-642-00  
 Project Manager: Paul Craig

Reported:  
 10/05/04 09:51

**Conventional Chemistry Parameters by APHA/EPA Methods  
 North Creek Analytical - Bothell**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

**091604-TRENCH-BASE (B4I0425-01) Soil ... Sampled: 09/16/04 11:15 ... Received: 09/16/04 14:00**

Total Alkalinity	43.5	5.00	mg/kg dry	1	4I30059	09/30/04	09/30/04	EPA 310.1 Mod.	
Ammonia-Nitrogen	ND	22.1	mg/kg as N dry	"	4I21034	09/21/04	09/21/04	EPA 350.3	
pH	5.79		pH Units	"	4I20046	09/17/04	09/17/04	EPA 9045C	
Sulfide	ND	97.7	mg/kg dry	"	4I21040	09/21/04	09/21/04	EPA 9030B	

**091604-TRENCH-SIDE WALL (B4I0425-02) Soil ... Sampled: 09/16/04 11:25 ... Received: 09/16/04 14:00**

Total Alkalinity	9.35	4.98	mg/kg dry	1	4I30059	09/30/04	09/30/04	EPA 310.1 Mod.	
Ammonia-Nitrogen	ND	25.0	mg/kg as N dry	"	4I21034	09/21/04	09/21/04	EPA 350.3	
pH	5.39		pH Units	"	4I20046	09/17/04	09/17/04	EPA 9045C	
Sulfide	ND	96.6	mg/kg dry	"	4I21040	09/21/04	09/21/04	EPA 9030B	

**091604-TRENCH-BACKGROUND (B4I0425-03) Soil ... Sampled: 09/16/04 11:55 ... Received: 09/16/04 14:00**

Total Alkalinity	39.7	4.96	mg/kg dry	1	4I30059	09/30/04	09/30/04	EPA 310.1 Mod.	
Ammonia-Nitrogen	ND	25.0	mg/kg as N dry	"	4I21034	09/21/04	09/21/04	EPA 350.3	
pH	6.03		pH Units	"	4I20046	09/17/04	09/17/04	EPA 9045C	
Sulfide	ND	94.4	mg/kg dry	"	4I21040	09/21/04	09/21/04	EPA 9030B	

**091604-REMOTE-BACKGROUND (B4I0425-04) Soil ... Sampled: 09/16/04 12:20 ... Received: 09/16/04 14:00**

Total Alkalinity	105	4.98	mg/kg dry	1	4I30059	09/30/04	09/30/04	EPA 310.1 Mod.	
Ammonia-Nitrogen	ND	25.0	mg/kg as N dry	"	4I21034	09/21/04	09/21/04	EPA 350.3	
pH	6.23		pH Units	"	4I20046	09/17/04	09/17/04	EPA 9045C	
Sulfide	ND	97.8	mg/kg dry	"	4I21040	09/21/04	09/21/04	EPA 9030B	

North Creek Analytical - Bothell

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Geo Engineers - Redmond 8410 154th Ave NE Redmond, WA/USA 98052	Project: PSE-Bellevue Explosion Investigation Site Project Number: 0186-642-00 Project Manager: Paul Craig	Reported: 10/05/04 09:51
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**Conventional Chemistry by Standard Methods  
 North Creek Analytical - Bothell**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>091604-TRENCH-BASE (B4I0425-01) Soil... Sampled: 09/16/04 11:15... Received: 09/16/04 14:00</b>										
Resistivity	4540			Ohms-cm	1	4I17042	09/17/04	09/17/04	SM2510B	
<b>091604-TRENCH-SIDE WALL (B4I0425-02) Soil... Sampled: 09/16/04 11:25... Received: 09/16/04 14:00</b>										
Resistivity	6280			Ohms-cm	1	4I17042	09/17/04	09/17/04	SM2510B	
<b>091604-TRENCH-BACKGROUND (B4I0425-03) Soil... Sampled: 09/16/04 11:55... Received: 09/16/04 14:00</b>										
Resistivity	13400			Ohms-cm	1	4I17042	09/17/04	09/17/04	SM2510B	
<b>091604-REMOTE-BACKGROUND (B4I0425-04) Soil... Sampled: 09/16/04 12:20... Received: 09/16/04 14:00</b>										
Resistivity	4610			Ohms-cm	1	4I17042	09/17/04	09/17/04	SM2510B	

North Creek Analytical - Bothell

*Jeff Gerdes*

Jeff Gerdes, Project Manager

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Geo Engineers - Redmond  
 8410 154th Ave NE  
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Project: PSE-Bellevue Explosion Investigation Site  
 Project Number: 0186-642-00  
 Project Manager: Paul Craig

Reported:  
 10/05/04 09:51

**Anions by EPA Method 300.0**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>091604-TRENCH-BASE (B4I0425-01) Soil... Sampled: 09/16/04 11:15... Received: 09/16/04 14:00</b>										
Bromide	ND	4.00		mg/kg dry	1	4I19003	09/18/04	09/18/04	EPA 300.0	
Chloride	20.8	4.00		"	"	"	"	"	"	
Fluoride	ND	2.00		"	"	4I20038	09/18/04	09/19/04	"	
Orthophosphate-phosphorus	ND	4.00		"	"	4I21042	"	09/20/04	"	Q-29
<b>091604-TRENCH-SIDE WALL (B4I0425-02) Soil... Sampled: 09/16/04 11:25... Received: 09/16/04 14:00</b>										
Bromide	ND	4.00		mg/kg dry	1	4I19003	09/18/04	09/18/04	EPA 300.0	
Chloride	10.7	4.00		"	"	"	"	"	"	
Fluoride	ND	2.00		"	"	4I20038	09/18/04	09/19/04	"	
Orthophosphate-phosphorus	ND	4.00		"	"	4I21042	"	09/20/04	"	Q-29
<b>091604-TRENCH-BACKGROUND (B4I0425-03) Soil... Sampled: 09/16/04 11:55... Received: 09/16/04 14:00</b>										
Bromide	ND	4.00		mg/kg dry	1	4I19003	09/18/04	09/18/04	EPA 300.0	
Chloride	7.07	4.00		"	"	"	"	"	"	
Fluoride	ND	2.00		"	"	4I20038	09/18/04	09/19/04	"	
Orthophosphate-phosphorus	ND	4.00		"	"	4I21042	"	09/20/04	"	Q-29
<b>091604-REMOTE-BACKGROUND (B4I0425-04) Soil... Sampled: 09/16/04 12:20... Received: 09/16/04 14:00</b>										
Bromide	ND	4.00		mg/kg dry	1	4I19003	09/18/04	09/18/04	EPA 300.0	
Chloride	27.3	4.00		"	"	"	"	"	"	
Fluoride	4.31	2.00		"	"	4I20038	09/18/04	09/19/04	"	
Orthophosphate-phosphorus	ND	4.00		"	"	4I21042	"	09/20/04	"	Q-29

North Creek Analytical - Bothell

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Jeff Gerdes, Project Manager

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Geo Engineers - Redmond 8410 154th Ave NE Redmond, WA/USA 98052	Project: PSE-Bellevue Explosion Investigation Site Project Number: 0186-642-00 Project Manager: Paul Craig	Reported: 10/05/04 09:51
-----------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------	-----------------------------

**Physical Parameters by APHA/ASTM/EPA Methods  
 North Creek Analytical - Bothell**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>091604-TRENCH-BASE (B4I0425-01) Soil ... Sampled: 09/16/04 11:15 ... Received: 09/16/04 14:00</b>										
Dry Weight	85.0	1.00		%	1	4I20026	09/19/04	09/20/04	BSOPSPL003R08	
<b>091604-TRENCH-SIDE WALL (B4I0425-02) Soil ... Sampled: 09/16/04 11:25 ... Received: 09/16/04 14:00</b>										
Dry Weight	85.1	1.00		%	1	4I20026	09/19/04	09/20/04	BSOPSPL003R08	
<b>091604-TRENCH-BACKGROUND (B4I0425-03) Soil ... Sampled: 09/16/04 11:55 ... Received: 09/16/04 14:00</b>										
Dry Weight	88.9	1.00		%	1	4I17029	09/17/04	09/18/04	BSOPSPL003R08	
<b>091604-REMOTE-BACKGROUND (B4I0425-04) Soil ... Sampled: 09/16/04 12:20 ... Received: 09/16/04 14:00</b>										
Dry Weight	77.4	1.00		%	1	4I17029	09/17/04	09/18/04	BSOPSPL003R08	

North Creek Analytical - Bothell

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Geo Engineers - Redmond 8410 154th Ave NE Redmond, WA/USA 98052	Project: PSE-Bellevue Explosion Investigation Site Project Number: 0186-642-00 Project Manager: Paul Craig	Reported: 10/05/04 09:51
-----------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------	-----------------------------

**Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4I20046: Prepared 09/17/04 Using General Preparation**

**Duplicate (4I20046-DUP1)**

Source: B4I0425-01

pH	5.87		pH Units		5.79			1.37	10	
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**Batch 4I21034: Prepared 09/21/04 Using General Preparation**

**Blank (4I21034-BLK1)**

Ammonia-Nitrogen	ND	50.0	mg/kg as N							
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**LCS (4I21034-BS1)**

Ammonia-Nitrogen	494	50.0	mg/kg as N	500		98.8	75-125			
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**LCS Dup (4I21034-BSD1)**

Ammonia-Nitrogen	496	50.0	mg/kg as N	500		99.2	75-125	0.404	25	
------------------	-----	------	------------	-----	--	------	--------	-------	----	--

**Duplicate (4I21034-DUP1)**

Source: B4I0425-01

Ammonia-Nitrogen	5.19	25.0	mg/kg as N dry		4.92			5.34	30	
------------------	------	------	----------------	--	------	--	--	------	----	--

**Matrix Spike (4I21034-MS1)**

Source: B4I0425-01

Ammonia-Nitrogen	282	25.0	mg/kg as N dry	297	4.92	93.3	33-168			
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**Batch 4I21040: Prepared 09/21/04 Using General Preparation**

**Blank (4I21040-BLK1)**

Sulfide	ND	99.9	mg/kg							
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**LCS (4I21040-BS1)**

Sulfide	86.0	98.2	mg/kg	106		81.1	75-125			
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*Jeff Gerdes*

Jeff Gerdes, Project Manager

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Geo Engineers - Redmond  
 8410 154th Ave NE  
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Project: PSE-Bellevue Explosion Investigation Site  
 Project Number: 0186-642-00  
 Project Manager: Paul Craig

Reported:  
 10/05/04 09:51

**Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4I21040: Prepared 09/21/04 Using General Preparation**

**LCS Dup (4I21040-BSD1)**

Sulfide	87.3	99.6	mg/kg	107		81.6	75-125	1.50	25	
---------	------	------	-------	-----	--	------	--------	------	----	--

**Duplicate (4I21040-DUP1)**

Source: B4I0425-01

Sulfide	ND	97.5	mg/kg dry		ND			NA	30	
---------	----	------	-----------	--	----	--	--	----	----	--

**Matrix Spike (4I21040-MS1)**

Source: B4I0425-01

Sulfide	92.6	96.5	mg/kg dry	122	ND	75.9	20-120			
---------	------	------	-----------	-----	----	------	--------	--	--	--

**Batch 4I30059: Prepared 09/30/04 Using General Preparation**

**Duplicate (4I30059-DUP1)**

Source: B4I0425-01

Total Alkalinity	41.7	5.00	mg/kg dry		43.5			4.23	25	
------------------	------	------	-----------	--	------	--	--	------	----	--

North Creek Analytical - Bothell

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*Jeff Gerdes*

Jeff Gerdes, Project Manager

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Geo Engineers - Redmond  
 8410 154th Ave NE  
 Redmond, WA/USA 98052

Project: PSE-Bellevue Explosion Investigation Site  
 Project Number: 0186-642-00  
 Project Manager: Paul Craig

Reported:  
 10/05/04 09:51

**Conventional Chemistry by Standard Methods - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting		Spike	Source		%REC		RPD		Notes
		Limit	Units		Level	Result	%REC	Limits	RPD	Limit	

Batch 4I17042: Prepared 09/17/04 Using Water Extraction

Duplicate (4I17042-DUP1)

Source: B4I0375-01

Resistivity	8850		Ohms-cm		9410			6.13		30	
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North Creek Analytical - Bothell

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*Jeff Gerdes*

Jeff Gerdes, Project Manager.

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Geo Engineers - Redmond  
 8410 154th Ave NE  
 Redmond, WA/USA 98052

Project: PSE-Bellevue Explosion Investigation Site  
 Project Number: 0186-642-00  
 Project Manager: Paul Craig

Reported:  
 10/05/04 09:51

**Anions by EPA Method 300.0 - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4I19003: Prepared 09/18/04 Using General Preparation**

**Blank (4I19003-BLK1)**

Bromide	ND	4.00	mg/kg							
Chloride	ND	4.00	"							

**LCS (4I19003-BS1)**

Bromide	39.2	4.00	mg/kg	40.0		98.0	90-110			
Chloride	19.5	4.00	"	20.0		97.5	90-110			

**LCS Dup (4I19003-BSD1)**

Bromide	38.8	4.00	mg/kg	40.0		97.0	90-110	1.03	25	
Chloride	18.9	4.00	"	20.0		94.5	90-110	3.13	10	

**Duplicate (4I19003-DUP2)**

Source: B4I0425-01

Bromide	ND	4.00	mg/kg dry		ND			NA	25	
Chloride	22.7	4.00	"		20.8			8.74	25	

**Matrix Spike (4I19003-MS2)**

Source: B4I0425-01

Bromide	44.9	4.00	mg/kg dry	45.5	ND	98.7	75-125			
Chloride	45.4	4.00	"	22.7	20.8	108	62-157			

**Batch 4I20038: Prepared 09/18/04 Using Water Extraction**

**Blank (4I20038-BLK1)**

Fluoride	ND	2.00	mg/kg							
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**LCS (4I20038-BS1)**

Fluoride	8.43	2.00	mg/kg	8.00		105	90-110			
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North Creek Analytical - Bothell

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Jeff Gerdes, Project Manager

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 Project Manager: Paul Craig

Reported:  
 10/05/04 09:51

**Anions by EPA Method 300.0 - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4I20038: Prepared 09/18/04 Using Water Extraction</b>										
<b>LCS Dup (4I20038-BSD1)</b>										
Fluoride	8.57	2.00	mg/kg	8.00		107	90-110	1.65	10	
<b>Duplicate (4I20038-DUP1)</b>										
					<b>Source: B4I0425-01</b>					
Fluoride	1.66	2.00	mg/kg dry		1.56			6.21	25	
<b>Matrix Spike (4I20038-MS1)</b>										
					<b>Source: B4I0425-01</b>					
Fluoride	3.04	2.00	mg/kg dry	9.10	1.56	16.3	75-125			Q-02
<b>Batch 4I21042: Prepared 09/18/04 Using Water Extraction</b>										
<b>Blank (4I21042-BLK1)</b>										
Orthophosphate-phosphorus	ND	4.00	mg/kg							
<b>LCS (4I21042-BS1)</b>										
Orthophosphate-phosphorus	19.9	4.00	mg/kg	19.4		103	90-110			
<b>LCS Dup (4I21042-BSD1)</b>										
Orthophosphate-phosphorus	19.9	4.00	mg/kg	19.4		103	90-110	0.00	10	
<b>Duplicate (4I21042-DUP1)</b>										
					<b>Source: B4I0425-01</b>					
Orthophosphate-phosphorus	1.25	4.00	mg/kg dry		1.36			8.43	25	
<b>Matrix Spike (4I21042-MS1)</b>										
					<b>Source: B4I0425-01</b>					
Orthophosphate-phosphorus	1.96	4.00	mg/kg dry	22.1	1.36	2.71	64-117			Q-02

North Creek Analytical - Bothell

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Geo Engineers - Redmond 8410 154th Ave NE Redmond, WA/USA 98052	Project: PSE-Bellevue Explosion Investigation Site Project Number: 0186-642-00 Project Manager: Paul Craig	Reported: 10/05/04 09:51
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**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		RPD		Notes
						%REC	Limits	RPD	Limit	

**Batch 4I17029: Prepared 09/17/04 Using General Preparation**

**Blank (4I17029-BLK1)**

Dry Weight	100	1.00	%							
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**Batch 4I20026: Prepared 09/19/04 Using General Preparation**

**Blank (4I20026-BLK1)**

Dry Weight	100	1.00	%							
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North Creek Analytical - Bothell

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Project: PSE-Bellevue Explosion Investigation Site  
 Project Number: 0186-642-00  
 Project Manager: Paul Craig

Reported:  
 10/05/04 09:51

**Notes and Definitions**

- Q-02 The spike recovery for this QC sample is outside of NCA established control limits due to sample matrix interference.
- Q-29 This sample was prepared outside of the method established holding time.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

North Creek Analytical - Bothell

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Jeff Gerdes, Project Manager

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 Environmental Laboratory Network

CHAIN OF CUSTODY RECORD

GEOENGINEERS, INC.  
 8410 154TH AVENUE N.E.  
 REDMOND, WASHINGTON 98052  
 (425) 861-6000



DATE \_\_\_\_\_ OF \_\_\_\_\_  
 PAGE \_\_\_\_\_  
 LAB \_\_\_\_\_  
 LAB NO. \_\_\_\_\_

PROJECT NAME/LOCATION		PROJECT NUMBER		PROJECT MANAGER		SAMPLED BY		ANALYSIS REQUIRED		NOTES/COMMENTS								
PE - Bellevue Explosives Investigation Site		Q186-642-00		Paul Tisher		Robert Tisher				(Preserved, filtered, etc.)								
LAB	GEOENGINEERS	SAMPLE COLLECTION		# OF JARS	PI	Chlorides	Sulfides	Fluorides	Phosphates	Soil Resistivity	Ammonia	STD TAT	Bromine	Sodium Hydroxide	Cyanide	Mercury Content	Total Acidity/Alkalinity	
		DATE	TIME															MATRIX
	091604-TRENCH	9-16-04	1115	Soil	5	X	X	X	X	X	X	X	X	X	X	X	X	X
	091604-TRENCH	9-16-04	1125	Soil	5	X	X	X	X	X	X	X	X	X	X	X	X	X
	091604-TRENCH	9-16-04	1155	Soil	5	X	X	X	X	X	X	X	X	X	X	X	X	X
	091604-BRAND	9-16-04	1220	Soil	5	X	X	X	X	X	X	X	X	X	X	X	X	X

RELINQUISHED BY: SIGNATURE \_\_\_\_\_ DATE 9-16-04 TIME 14:00 FIRM \_\_\_\_\_  
 PRINTED NAME Robert Tisher  
 RECEIVED BY: SIGNATURE \_\_\_\_\_ DATE 9-16-04 TIME 14:00 FIRM \_\_\_\_\_  
 PRINTED NAME Paul Tisher

ADDITIONAL COMMENTS:



