

LETTER OF TRANSMITTAL

1301 Trumansburg Road, Suite N
Ithaca, NY 14850
Phone: (607) 216-8955
www.geiconsultants.com

To:	Mr. David Szymanski	Date:	May 21, 2014
	Environmental Program – Specialist I	Project No.	1404090-*-1004
	Division of Environmental Remediation, Region 9	Re:	Preliminary Results Transmittal
	NYSDEC		CMWP Addendum #3
	270 Michigan Avenue		Mineral Springs Former MGP Site
	Buffalo, NY 14203-2915		NYSDEC Site #V00195

We are sending you the following enclosures:

No.	Type	Description
1	Electronic	Preliminary (Non-Validated) Subsurface Soil Results for Sampling Performed on 4/22/2014

These are transmitted as checked below:

☐ For Approval ☐ For Your Use ☒ For Review/Comment ☐ As Requested ☐ Other
Message:

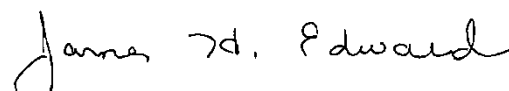
The results of the sampling performed at the National Fuel parcel and one off-site parcel on 4/22/2014 during implementation of CMWP Addendum #3 at the Mineral Springs MGP Site are attached. Table 1 shows the results of sampling performed on the National Fuel parcel. Table 2 shows the results of sampling performed at the off-site parcel. Where a concentration of a constituent of concern was found to exceed the Residential SCO, the sample result is shaded in gray on the tables. Also included are the Work Plan figures showing the sample locations, the laboratory data package and chain-of-custody record for this day of sampling.

Please contact me if you have any questions regarding the information provided in this transmittal. Please direct the Department's official response to Brad Walker, National Fuel's project manager for the investigation.

Copy to:

B. Walker – National Fuel
T. Alexander – National Fuel
S. McLaughlin – NYSDOH
M. Forcucci – NYSDOH
D. Ripstein – NYSDOH
W. Lachell – GEI

Signed:


James H. Edwards, C.P.G.
Senior Geologist

If enclosures are not as noted, kindly notify us at once.

Attachment A

Subsurface Soil Results Summary Table

Table 1
Preliminary (Non-Validated) Subsurface Soil Results
Samples Collected 4/22/2014
On-Site Soil Sample Results

			Location Name	(E2)(N1)	(E2)(N1)	(E2)(N2)	(E2)(N2)	(E2)(N3)	(E2)(N3)	(E2)(N4)	(E2)(N4)	(E2)(N5)	(E2)(N5)	(E2)(N6)	(E2)(N6)	(E2)(N7)	(E2)(N7)
			Sample Name	(E2) (N1) (0.2-1.4)	(E2) (N1) (1.4-1.9)	(E2) (N2) (0.2-1.8)	(E2) (N2) (1.8-2.3)	(E2) (N3) (0.2-0.9)	(E2) (N3) (0.9-1.4)	(E2) (N4) (0.2-1.4)	(E2) (N4) (1.4-1.9)	(E2) (N5) (0.2-1.8)	(E2) (N5) (1.8-2.3)	(E2) (N6) (0.2-1.2)	(E2) (N6) (1.2-1.7)	(E2) (N7) (0.2-1.8)	(E2) (N7) (1.8-2.3)
			Description	Fill Material	Native Soil / Silty Clay	Fill Material	Native Soil / Silty Clay	Fill Material	Native Soil / Silty Clay	Fill Material	Native Soil / Silty Clay	Fill Material	Native Soil / Silty Clay	Fill Material	Native Soil / Silty Clay	Fill Material	Native Soil / Silty Clay
			Start Depth	0.2	1.4	0.2	1.8	0.2	0.9	0.2	1.4	0.2	1.8	0.2	1.2	0.2	1.8
			End Depth	1.4	1.9	1.8	2.3	0.9	1.4	1.4	1.9	1.8	2.3	1.2	1.7	1.8	2.3
			Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
			Sample Date	4/22/2014	4/22/2014	4/22/2014	4/22/2014	4/22/2014	4/22/2014	4/22/2014	4/22/2014	4/22/2014	4/22/2014	4/22/2014	4/22/2014	4/22/2014	4/22/2014
Analyte	CAS no.		Residential SCO														
Total Metals mg/kg																	
Arsenic	7440-38-2	16		20.2	6.6	24.9	17	15.3	10.9	21.2	5.1	7.6	4.1	13.6	3.2	14.5	7
Cadmium	7440-43-9	2.5		1 U	0.86 U	0.41 J	0.9 U	0.91 U	0.9 U	0.96 U	0.68 U	0.81 U	0.92 U	0.47 J	0.69 U	1.2	0.73 U
Lead	7439-92-1	400		133	18.2	247	14.5	61.7	15.3	74.1	18.7	48	13	132	11.9	56.4	15.2
Mercury	7439-97-6	0.81		0.51	0.028	0.23	0.054	0.13	0.034	0.43	0.072	0.17	0.049	0.36	0.034	0.82	0.04
Cyanides mg/kg																	
Free Cyanide	NA	NE		3.3 U	2.9 U	2.3 U	0.14 J	1.5 J	0.61 J	1.1 J	1.6 J	3 U	0.19 J	0.8 J	2.7 U	0.16 J	0.2 J
Total Cyanide	57-12-5	27		6.7	10.7	12.2	12.8	40.1	2.6	49.4	2.7	2.5	6.9	9.3	3.5	1.3 J	0.71 J

Table 2
Preliminary (Non-Validated) Subsurface Soil Results
Samples Collected 4/22/2014
Off-Site Soil Sample Results

			Location Name	(W10)(S2)	(W10)(S2)
			Sample Name	(W10) (S2) (0.2-1.9)	(W10) (S2) (1.9-2.4)
			Description	Fill Material	Native Soil / Silty Clay
			Start Depth	0.2	1.9
			End Depth	1.9	2.4
			Depth Unit	ft	ft
			Sample Date	4/22/2014	4/22/2014
Analyte	CAS no.		Residential SCO		
Total Metals mg/kg					
Arsenic	7440-38-2	16		8.8	2.9 J
Cadmium	7440-43-9	2.5		0.51 J	0.81 U
Lead	7439-92-1	400		179	13.2
Mercury	7439-97-6	0.81		0.11	0.033
Cyanides mg/kg					
Free Cyanide	NA	NE		0.23 J	0.41 J
Total Cyanide	57-12-5	27		2.2	1.2 U

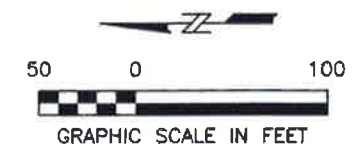
Attachment B

Site Figures

File: J:\Rem_Eng\Project_Files\National_Fuel_Gas\Mineral_Springs_D4870_HFG\CADD\CWMP_#3\60250836-AsBuilt_2014-01-13.dwg Layout: NORTH-1 User: townsend Plotted: Jan 31, 2014 - 9:31am Xref's:

LEGEND

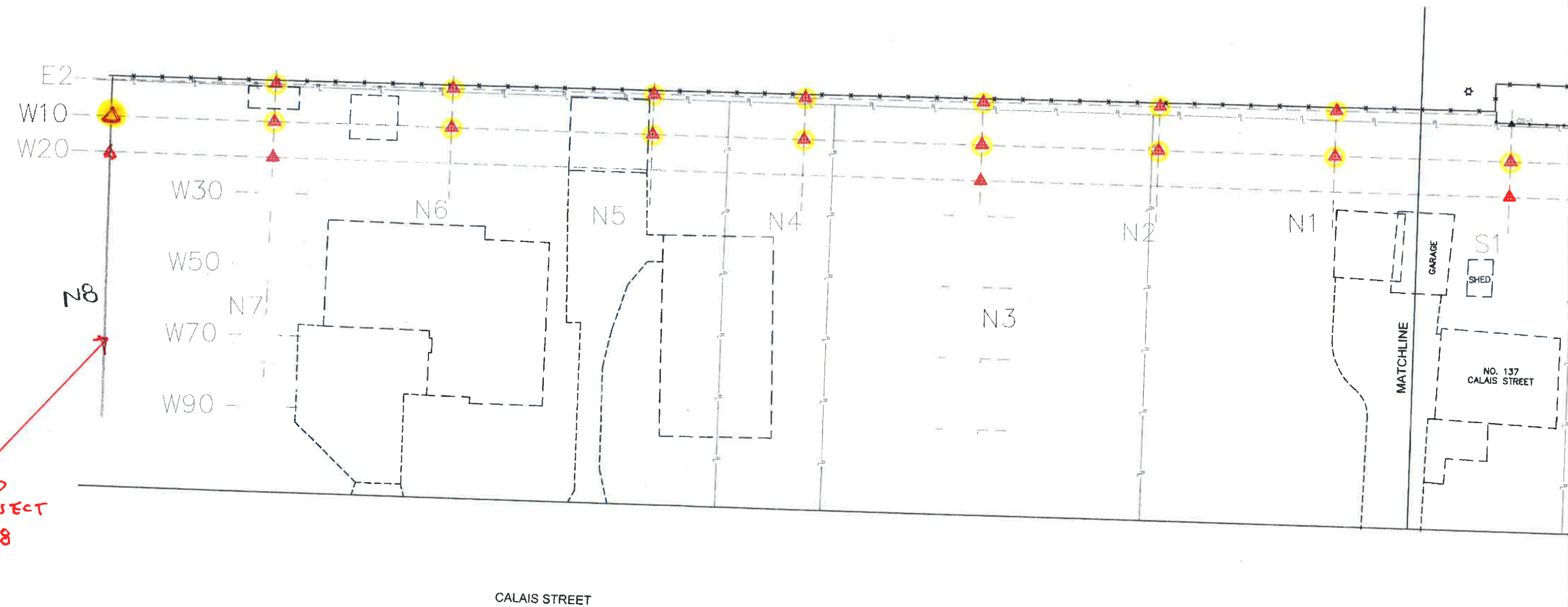
- PARCEL LINE
- BUILDING OUTLINE
- DRIVEWAY
- FENCE
- UNDERGROUND ELECTRIC UTILITY
- SAMPLING TRANSECT
- CS-11 NOV. 2013 SURFACE SOIL SAMPLE
- PROPOSED SOIL BORING WITH SURFACE, SUBSURFACE & NATIVE CLAY SAMPLES
- PROPOSED SURFACE SOIL SAMPLE
- INITIAL SURFACE SOIL SAMPLES TO BE ANALYZED
- N1 EAST-WEST TRANSECT NORTH OF CMWP AREA
- S1 EAST-WEST TRANSECT WITHIN CMWP AREA
- W10 NORTH-SOUTH TRANSECT 10' WEST OF PROPERTY LINE
- E2 NORTH-SOUTH TRANSECT 2' EAST OF PROPERTY LINE



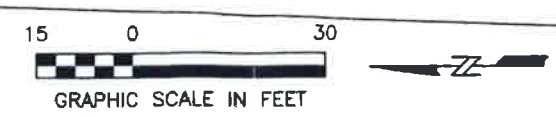
NOTE:
SHALLOW SOIL BORINGS MAY BE ADVANCED
ALONG TRANSECTS W20, N7, N3, S3, AND S5.
THESE SOIL BORINGS ARE CONTINGENT
LOCATIONS THAT WILL BE ADVANCED IF FILL
MATERIALS ARE ENCOUNTERED IN THE ADJACENT
W10 SOIL BORING LOCATION



KEY MAP



DRAFT

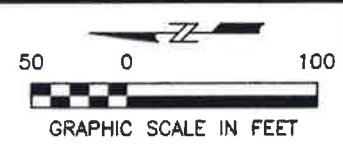


NATIONAL FUEL GAS MINERAL SPRINGS ROAD FORMER MANUFACTURED GAS PLANT			FENCE REPLACEMENT AREA CORRECTIVE MEASURES ADDENDUM #3 PROPOSED SAMPLE LOCATIONS	
DATE: 01/2014	DRWN: LT/BcV	60250836.200	FIGURE 3A	

File: J:\Rem_Eng\Project Files\National Fuel Gas\Mineral Springs 04870 NFG\CAD\CMWP #3\60250836-AsBuil_2014-01-13.dwg Layout: SOUTH-2 User: townsend Plotted: Jan 31, 2014 - 9:32am Xref's:

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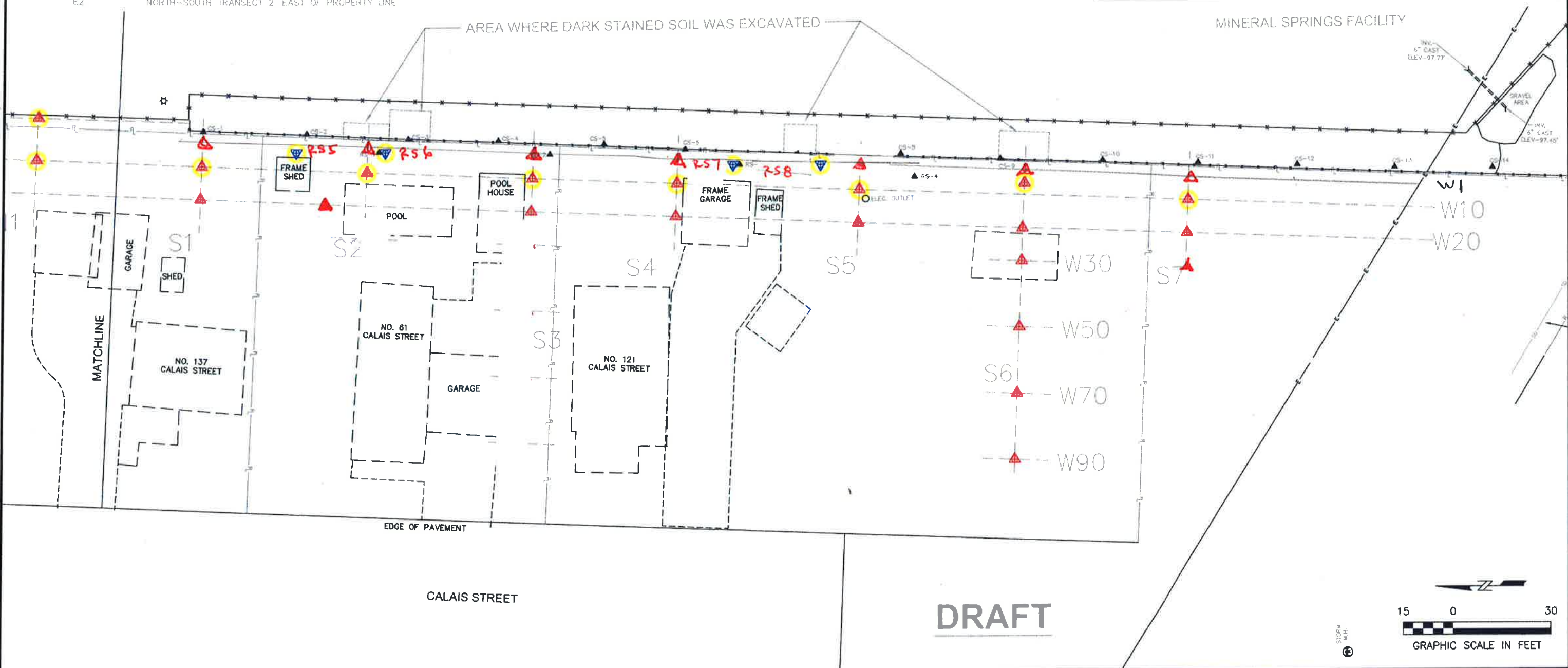
- PARCEL LINE
- BUILDING OUTLINE
- DRIVEWAY
- FENCE
- UNDERGROUND ELECTRIC UTILITY
- SAMPLING TRANSECT
- ▲ CS-11 NOV. 2013 SURFACE SOIL SAMPLE
- ▲ PROPOSED SOIL BORING WITH SURFACE, SUBSURFACE & NATIVE CLAY SAMPLES
- ▲ PROPOSED SURFACE SOIL SAMPLE
- INITIAL SURFACE SOIL SAMPLES TO BE ANALYZED
- N1 EAST-WEST TRANSECT NORTH OF CMWP AREA
- S1 EAST-WEST TRANSECT WITHIN CMWP AREA
- W10 NORTH-SOUTH TRANSECT 10' WEST OF PROPERTY LINE
- E2 NORTH-SOUTH TRANSECT 2' EAST OF PROPERTY LINE



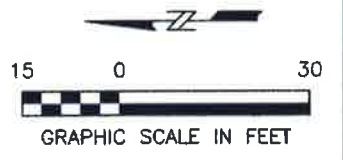
NOTE:
SHALLOW SOIL BORINGS MAY BE ADVANCED
ALONG TRANSECTS W20, N7, N3, S3, AND S6.
THESE SOIL BORINGS ARE CONTINGENT
LOCATIONS THAT WILL BE ADVANCED IF FILL
MATERIALS ARE ENCOUNTERED IN THE ADJACENT
W10 SOIL BORING LOCATION



KEY MAP



DRAFT



NATIONAL FUEL GAS MINERAL SPRINGS ROAD FORMER MANUFACTURED GAS PLANT			FENCE REPLACEMENT AREA CORRECTIVE MEASURES ADDENDUM #3 PROPOSED SAMPLE LOCATIONS	
DATE: 01/2014	DRWN: LT/BcV	60250836.200	FIGURE 3B	

Attachment C

Chain-of-Custody and Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-58444-1

Client Project/Site: National Fuel Gas - Mineral Springs MGP

For:

GEI Consultants, Inc.

1301 Trumansburg Road

Suite N

Ithaca, New York 14850

Attn: James Edwards



Authorized for release by:

5/20/2014 3:45:24 PM

Rebecca Jones, Project Management Assistant I

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Designee for

Melissa Deyo, Project Manager I

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melissa.deyo@testamericainc.com

LINKS

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Expert

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

TestAmerica Buffalo

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN SURVEILLANT TESTING

Client Information Client Contact: Michael Cummings Company: GEI Consultants, Inc. Address: 908 John Muir Drive Suite 104 City: Amherst State, Zip: NY, 14228 Phone: Email: mcummings@geiconsultants.com Project Name: National Fuel Gas - Mineral Springs MGP Site:		Lab PM: Deyo, Melissa L E-Mail: melissa.deyo@testamericainc.com Phone: Project #: 48009603 SSOW#:		Carrier Tracking No(s): COG No: 480-48242-12790.4 Page: Page 4 of 19 Job #:	
Analysis Requested Due Date Requested: TAT Requested (days): PO #: Purchase Order not required WO #:					
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Antichlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:					
Special Instructions/Note: NORMAL TAT					
Total Number of Containers:					
480-58444 Chain of Custody					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months					
Special Instructions/QC Requirements:					
Empty Kit Relinquished by:					
Relinquished by:					
Relinquished by:					
Relinquished by:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Custody Seal No.:					

5/20/2014

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: National Fuel Gas - Mineral Springs MGP

TestAmerica Job ID: 480-58444-1

Client Sample ID: (E2) (N1) (0.2-1.4)

Lab Sample ID: 480-58444-1

Date Collected: 04/22/14 02:30

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 65.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20.2		3.8	1.0	mg/Kg	☼	05/10/14 15:47	05/12/14 14:31	4
Cadmium	ND		1.0	0.35	mg/Kg	☼	05/10/14 15:47	05/12/14 14:31	4
Lead	133		2.5	1.0	mg/Kg	☼	05/10/14 15:47	05/12/14 14:31	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.51		0.026	0.018	mg/Kg	☼	04/30/14 11:11	04/30/14 17:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	6.7		1.5	0.71	mg/Kg	☼	04/29/14 14:46	04/29/14 22:18	1
Cyanide, Free	ND		3.3	0.16	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

Client Sample ID: (E2) (N1) (1.4-1.9)

Lab Sample ID: 480-58444-2

Date Collected: 04/22/14 02:35

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 74.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.6		3.2	0.89	mg/Kg	☼	05/11/14 17:57	05/12/14 19:47	4
Cadmium	ND		0.86	0.31	mg/Kg	☼	05/11/14 17:57	05/12/14 19:47	4
Lead	18.2		2.2	0.89	mg/Kg	☼	05/11/14 17:57	05/12/14 19:47	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.021	0.015	mg/Kg	☼	04/30/14 11:11	04/30/14 17:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	10.7		1.3	0.61	mg/Kg	☼	04/29/14 14:46	04/29/14 22:19	1
Cyanide, Free	ND		2.9	0.14	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

Client Sample ID: (E2) (N2) (0.2-1.8)

Lab Sample ID: 480-58444-3

Date Collected: 04/22/14 09:20

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 93.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	24.9		2.6	0.72	mg/Kg	☼	05/11/14 17:57	05/12/14 19:51	4
Cadmium	0.41	J	0.70	0.25	mg/Kg	☼	05/11/14 17:57	05/12/14 19:51	4
Lead	247		1.7	0.72	mg/Kg	☼	05/11/14 17:57	05/12/14 19:51	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.23		0.017	0.012	mg/Kg	☼	04/30/14 11:11	04/30/14 17:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	12.2		1.0	0.49	mg/Kg	☼	04/29/14 14:46	04/29/14 22:21	1
Cyanide, Free	ND		2.3	0.11	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

TestAmerica Buffalo

Client Sample Results

Client: GEI Consultants, Inc.

TestAmerica Job ID: 480-58444-1

Project/Site: National Fuel Gas - Mineral Springs MGP

Client Sample ID: (E2) (N2) (1.8-2.3)

Lab Sample ID: 480-58444-4

Date Collected: 04/22/14 10:20

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 74.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17.0		3.4	0.92	mg/Kg	☼	05/11/14 17:57	05/12/14 19:54	4
Cadmium	ND		0.90	0.32	mg/Kg	☼	05/11/14 17:57	05/12/14 19:54	4
Lead	14.5		2.3	0.93	mg/Kg	☼	05/11/14 17:57	05/12/14 19:54	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.054		0.020	0.014	mg/Kg	☼	04/30/14 11:11	04/30/14 17:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	12.8		1.3	0.64	mg/Kg	☼	04/29/14 14:46	04/29/14 22:24	1
Cyanide, Free	0.14	J	2.9	0.14	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

Client Sample ID: (E2) (N3) (0.9-1.4)

Lab Sample ID: 480-58444-5

Date Collected: 04/22/14 11:20

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 79.7

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10.9		3.4	0.92	mg/Kg	☼	05/11/14 17:57	05/12/14 19:58	4
Cadmium	ND		0.90	0.32	mg/Kg	☼	05/11/14 17:57	05/12/14 19:58	4
Lead	15.3		2.2	0.92	mg/Kg	☼	05/11/14 17:57	05/12/14 19:58	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.018	0.013	mg/Kg	☼	04/30/14 11:11	04/30/14 17:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	2.6		1.2	0.57	mg/Kg	☼	04/29/14 14:46	04/29/14 22:26	1
Cyanide, Free	0.61	J	2.7	0.13	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

Client Sample ID: (E2) (N3) (0.2-0.9)

Lab Sample ID: 480-58444-6

Date Collected: 04/22/14 01:45

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 72.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15.3		3.4	0.93	mg/Kg	☼	05/11/14 17:57	05/12/14 20:02	4
Cadmium	ND		0.91	0.32	mg/Kg	☼	05/11/14 17:57	05/12/14 20:02	4
Lead	61.7		2.3	0.93	mg/Kg	☼	05/11/14 17:57	05/12/14 20:02	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.021	0.015	mg/Kg	☼	04/30/14 11:11	04/30/14 17:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	40.1		1.3	0.62	mg/Kg	☼	04/29/14 14:46	04/29/14 22:28	1
Cyanide, Free	1.5	J	3.0	0.15	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

TestAmerica Buffalo

Client Sample Results

Client: GEI Consultants, Inc.

TestAmerica Job ID: 480-58444-1

Project/Site: National Fuel Gas - Mineral Springs MGP

Client Sample ID: (E2) (N4) (0.2-1.4)

Lab Sample ID: 480-58444-7

Date Collected: 04/22/14 01:20

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 68.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	21.2		3.6	0.98	mg/Kg	☼	05/11/14 17:57	05/12/14 20:05	4
Cadmium	ND		0.96	0.34	mg/Kg	☼	05/11/14 17:57	05/12/14 20:05	4
Lead	74.1		2.4	0.98	mg/Kg	☼	05/11/14 17:57	05/12/14 20:05	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.43		0.024	0.017	mg/Kg	☼	05/05/14 11:50	05/05/14 16:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	49.4		1.4	0.67	mg/Kg	☼	04/29/14 14:46	04/29/14 22:29	1
Cyanide, Free	1.1	J	3.2	0.16	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

Client Sample ID: (E2) (N4) (1.4-1.9)

Lab Sample ID: 480-58444-8

Date Collected: 04/22/14 01:25

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 80.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		2.6	0.70	mg/Kg	☼	05/11/14 17:57	05/12/14 20:09	4
Cadmium	ND		0.68	0.24	mg/Kg	☼	05/11/14 17:57	05/12/14 20:09	4
Lead	18.7		1.7	0.70	mg/Kg	☼	05/11/14 17:57	05/12/14 20:09	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.072		0.021	0.015	mg/Kg	☼	05/05/14 11:50	05/05/14 16:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	2.7		1.2	0.60	mg/Kg	☼	04/29/14 18:35	04/30/14 15:44	1
Cyanide, Free	1.6	J	2.6	0.13	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

Client Sample ID: (E2) (N5) (0.2-1.8)

Lab Sample ID: 480-58444-9

Date Collected: 04/22/14 11:45

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 68.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.6		3.0	0.83	mg/Kg	☼	05/11/14 17:57	05/12/14 20:12	4
Cadmium	ND		0.81	0.29	mg/Kg	☼	05/11/14 17:57	05/12/14 20:12	4
Lead	48.0		2.0	0.83	mg/Kg	☼	05/11/14 17:57	05/12/14 20:12	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17		0.023	0.016	mg/Kg	☼	05/05/14 11:50	05/05/14 16:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	2.5		1.4	0.69	mg/Kg	☼	04/29/14 18:35	04/30/14 15:46	1
Cyanide, Free	ND		3.0	0.15	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

TestAmerica Buffalo

Client Sample Results

Client: GEI Consultants, Inc.

TestAmerica Job ID: 480-58444-1

Project/Site: National Fuel Gas - Mineral Springs MGP

Client Sample ID: (E2) (N5) (1.8-2.3)

Lab Sample ID: 480-58444-10

Date Collected: 04/22/14 11:50

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 77.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.1		3.5	0.94	mg/Kg	☼	05/11/14 17:57	05/12/14 20:27	4
Cadmium	ND		0.92	0.33	mg/Kg	☼	05/11/14 17:57	05/12/14 20:27	4
Lead	13.0		2.3	0.94	mg/Kg	☼	05/11/14 17:57	05/12/14 20:27	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.021	0.015	mg/Kg	☼	05/05/14 11:50	05/05/14 16:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	6.9		1.2	0.59	mg/Kg	☼	04/29/14 18:35	04/30/14 15:57	1
Cyanide, Free	0.19	J	2.7	0.14	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

Client Sample ID: (E2) (N6) (0.2-1.2)

Lab Sample ID: 480-58444-11

Date Collected: 04/22/14 11:30

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 69.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13.6		3.5	0.96	mg/Kg	☼	05/11/14 17:57	05/12/14 20:31	4
Cadmium	0.47	J	0.94	0.33	mg/Kg	☼	05/11/14 17:57	05/12/14 20:31	4
Lead	132		2.3	0.96	mg/Kg	☼	05/11/14 17:57	05/12/14 20:31	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.36		0.024	0.017	mg/Kg	☼	05/05/14 11:50	05/05/14 16:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	9.3		1.4	0.69	mg/Kg	☼	04/29/14 18:35	04/30/14 15:56	1
Cyanide, Free	0.80	J	3.0	0.15	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

Client Sample ID: (E2) (N6) (1.2-1.7)

Lab Sample ID: 480-58444-12

Date Collected: 04/22/14 12:50

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 78.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.2		2.6	0.71	mg/Kg	☼	05/11/14 17:57	05/12/14 20:34	4
Cadmium	ND		0.69	0.25	mg/Kg	☼	05/11/14 17:57	05/12/14 20:34	4
Lead	11.9		1.7	0.71	mg/Kg	☼	05/11/14 17:57	05/12/14 20:34	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.020	0.014	mg/Kg	☼	05/05/14 11:50	05/05/14 16:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	3.5		1.2	0.58	mg/Kg	☼	04/29/14 18:35	04/30/14 15:54	1
Cyanide, Free	ND		2.7	0.14	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

TestAmerica Buffalo

Client Sample Results

Client: GEI Consultants, Inc.

TestAmerica Job ID: 480-58444-1

Project/Site: National Fuel Gas - Mineral Springs MGP

Client Sample ID: (E2) (N7) (0.2-1.8)

Lab Sample ID: 480-58444-13

Date Collected: 04/22/14 10:15

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 66.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.5		4.0	1.1	mg/Kg	☼	05/11/14 17:57	05/12/14 20:38	4
Cadmium	1.2		1.1	0.38	mg/Kg	☼	05/11/14 17:57	05/12/14 20:38	4
Lead	56.4		2.7	1.1	mg/Kg	☼	05/11/14 17:57	05/12/14 20:38	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.82		0.025	0.018	mg/Kg	☼	05/05/14 11:50	05/05/14 16:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.3	J	1.4	0.67	mg/Kg	☼	04/29/14 18:35	04/30/14 15:43	1
Cyanide, Free	0.16	J	3.2	0.16	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

Client Sample ID: (E2) (N7) (1.8-2.3)

Lab Sample ID: 480-58444-14

Date Collected: 04/22/14 10:30

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 74.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0		2.7	0.74	mg/Kg	☼	05/11/14 17:57	05/12/14 20:42	4
Cadmium	ND		0.73	0.26	mg/Kg	☼	05/11/14 17:57	05/12/14 20:42	4
Lead	15.2		1.8	0.75	mg/Kg	☼	05/11/14 17:57	05/12/14 20:42	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.040		0.023	0.016	mg/Kg	☼	05/05/14 11:50	05/05/14 16:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.71	J	1.3	0.64	mg/Kg	☼	04/29/14 18:35	04/30/14 15:50	1
Cyanide, Free	0.20	J	2.8	0.14	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

Client Sample ID: (W10) (S2) (0.2-1.9)

Lab Sample ID: 480-58444-15

Date Collected: 04/22/14 03:15

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 65.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.8		3.9	1.1	mg/Kg	☼	05/11/14 17:57	05/12/14 20:45	4
Cadmium	0.51	J	1.0	0.37	mg/Kg	☼	05/11/14 17:57	05/12/14 20:45	4
Lead	179		2.6	1.1	mg/Kg	☼	05/11/14 17:57	05/12/14 20:45	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.024	0.017	mg/Kg	☼	05/05/14 11:50	05/05/14 16:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	2.2		1.5	0.73	mg/Kg	☼	04/29/14 18:35	04/30/14 15:47	1
Cyanide, Free	0.23	J	3.3	0.16	mg/Kg	☼	05/05/14 05:30	05/05/14 11:30	1

TestAmerica Buffalo

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: National Fuel Gas - Mineral Springs MGP

TestAmerica Job ID: 480-58444-1

Client Sample ID: (W10) (S2) (1.9-2.4)

Lab Sample ID: 480-58444-16

Date Collected: 04/22/14 03:17

Matrix: Solid

Date Received: 04/22/14 16:00

Percent Solids: 80.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.9	J	3.0	0.83	mg/Kg	⚠	05/11/14 17:57	05/12/14 20:49	4
Cadmium	ND		0.81	0.29	mg/Kg	⚠	05/11/14 17:57	05/12/14 20:49	4
Lead	13.2		2.0	0.83	mg/Kg	⚠	05/11/14 17:57	05/12/14 20:49	4

Method: 7471B - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.020	0.014	mg/Kg	⚠	05/05/14 11:50	05/05/14 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		1.2	0.58	mg/Kg	⚠	04/29/14 18:35	04/30/14 15:48	1
Cyanide, Free	0.41	J	2.6	0.13	mg/Kg	⚠	05/05/14 05:30	05/05/14 11:30	1