

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

Mr. Don Timothy
Superintendent of Highways
Town of Allen
4949 Kline Road
Filmore, NY 14735

JUN 14 2011

Dear Mr. Timothy:

Re: Brine Bud # B030-11 - Dust Suppression
Transporter Permit # 9A-509

We have reviewed the information submitted in your April 18, 2011 petition for the proposed beneficial use of brine from the National Fuel Gas facility located in Andover, New York as part of your dust suppression system. Additional required information (the brine analysis report) has been provided in this case by National Fuel Gas. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- All vehicles transporting brine to the Town of Allen storage tank must have a valid Part 364 permit.
- Dust control activities must be conducted in accordance with procedures described in your BUD petition and only on roads outlined on the map included with your BUD petition. Vehicular equipment must be either dedicated to this use or cleaned of previously transported waste materials prior to this use. No brine can be applied after daylight hours or used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water.
- Brine may not be applied on wet roads, during rain, or when rain is imminent.
- Brine may be applied a maximum of six times on any section of road during a season. Please contact this office should the need arise to increase the application frequency.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

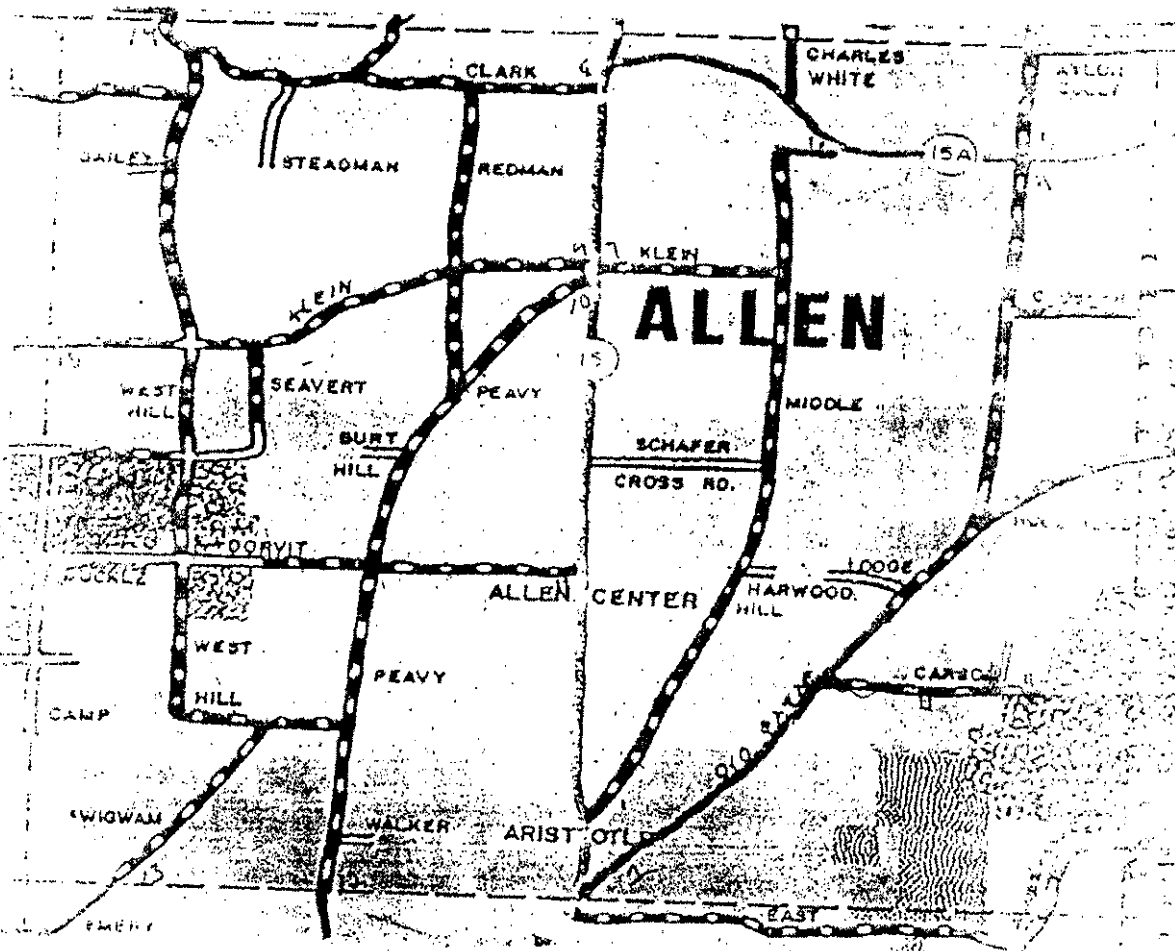
Town of Allen
4949 Kline Rd Fillmore NY
585-567-8320

TO: Jack Aversa, Chief, Registration & permits section

From: Superintendent of Highways

Subject: Waste Transporter Permit 9A-509

April 13, 2011



Town of Allen
4949 Kline Rd Fillmore NY
585-567-8320

TO: Jack Aversa, Chief, Registration & permits section
From: Superintendent of Highways
Subject: Waste Transporter Permit 9A-509
April 13, 2011

Well site storage location

National fuel gas supply corp.

Beech hill station

Andover, N.Y.

585-583-1600

The brine will be applied by use of a spreader bar with shut-off controls in cab of truck.

About 3/10 per square yard for dust control only on dry roads.

Storage one 4000 gallon storage semi tank with earthen berm around tank for runoff control.



Paul, inv. # 48 002968

Analytical Report

Work Order: RTD1040

Project Description
Brine - Priority Pollutant Analysis

For:

James Clark

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Melissa Deyo

Melissa Deyo For Paul Morrow

Project Manager

melissa.deyo@testamericainc.com

Thursday, April 29, 2010

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.



THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

TestAmerica Buffalo Current Certifications

As of 12/21/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA, NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SWCS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9337
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP, SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA, RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington*	NELAP CWA, RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA, RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991
www.testamericainc.com

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.



THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- D02** Dilution required due to sample matrix effects
- D08** Dilution required due to high concentration of target analyte(s)
- D15** Sample weight / volume has been reduced to eliminate matrix interference. Reporting limits have been adjusted accordingly.
- E** Concentration exceeds the calibration range and therefore result is semi-quantitative.
- HFT** The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
- J** Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
- L** Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
- L1** Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- QSU** Sulfur (EPA 3660) clean-up performed on extract.
- S9** Unable to digest full amount of sample due to matrix problem.
- NR** Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method	
Sample ID: RTD1040-01 (BRINE - Water)			Sampled: 04/09/10 11:15				Recvd: 04/09/10 15:55				
Volatiles Organic Compounds											
Benzene	36		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624	
Chloromethane	2.7	J	5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624	
Toluene	5.2		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624	
Acid and Base/Neutral Extractables by EPA Method 625											
2,4-Dimethylphenol	0.15	J	4.9	0.13	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625	
Naphthalene	0.17	J	4.9	0.079	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625	
Phenol	13		4.9	0.12	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625	
Organochlorine Pesticides and PCBs by EPA Method 608											
gamma-BHC (Lindane) [2C]	0.028	J	0.049	0.0058	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608	
Total Metals by EPA 200 Series Methods											
Arsenic	0.0145		0.0100	0.0056	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7	
Beryllium	0.0114		0.0020	0.0002	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7	
Cadmium	0.0022		0.0010	0.0003	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7	
Calcium	40500	D08	50.0	10.0	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7	
Copper	0.0070	J	0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7	
Magnesium	4390	D08	4.00	0.868	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7	
Sodium	19100	D08	100	32.4	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7	
Zinc	0.0378		0.0100	0.0015	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7	
General Chemistry Parameters											
Oil and Grease	3.0	J	5.0	1.4	mg/L	1.00	04/12/10 11:40	JME	10D0971	1664A	
Chloride	220000	D08	20000	9200	mg/L	20000	04/20/10 15:04	KLD	10D1994	4500-CL E	
pH	5.78	HFT	0.00500	0.00	SU	1.00	04/10/10 00:07	JFR	10D1046	9040	
Total Recoverable Phenolics	0.0099	J	0.0100	0.0050	mg/L	1.00	04/14/10 16:36	KLD	10D1239	420.4	
Total Dissolved Solids	308000	D08, B	2000	800	mg/L	200	04/13/10 22:00	AMP	10D1135	2540C	
Specific Conductance (25 C)	160000		NR	0.0	umhos/cm	1.00	04/12/10 10:43	KLD	10D1002	120.1	
Total Organic Carbon	127	D08	40.0	17.4	mg/L	40.0	04/22/10 21:15	KLD	10D2194	9060	
Total Organic Halides (Tox)	9330	D15, B	5000	1630	ug/L	1.00	04/22/10 10:37	JMM	10D1897	9020	

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
BRINE	RTD1040-01	Water	04/09/10 11:15	04/09/10 15:55	

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National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water)										
						Sampled: 04/09/10 11:15	Recvd: 04/09/10 15:55			
Volatile Organic Compounds										
1,1,1-Trichloroethane	ND		5.0	0.73	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1,2,2-Tetrachloroethane	ND		5.0	1.2	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1-Dichloroethane	ND		5.0	0.59	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1-Dichloroethene	ND		5.0	0.85	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloroethane	ND		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloropropane	ND		5.0	0.61	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
2-Chloroethyl vinyl ether	ND		25	3.7	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Benzene	36		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromodichloromethane	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromoform	ND		5.0	0.47	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromomethane	ND		5.0	1.2	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Carbon Tetrachloride	ND		5.0	0.51	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chlorobenzene	ND		5.0	0.48	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chlorodibromomethane	ND		5.0	0.41	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloroethane	ND		5.0	0.87	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloroform	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloromethane	2.7	J	5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
cis-1,3-Dichloropropene	ND		5.0	0.57	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Ethylbenzene	ND		5.0	0.46	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Methylene Chloride	ND		5.0	0.81	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Tetrachloroethene	ND		5.0	0.34	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Toluene	5.2		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Trichloroethene	ND		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Trichlorofluoromethane	ND		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Vinyl chloride	ND		5.0	0.75	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloroethane-d4	109 %		Surr Limits: (88-132%)				04/13/10 07:07	TRB	10D0944	624
4-Bromofluorobenzene	93 %		Surr Limits: (78-122%)				04/13/10 07:07	TRB	10D0944	624
Toluene-d8	93 %		Surr Limits: (87-110%)				04/13/10 07:07	TRB	10D0944	624

Acid and Base/Neutral Extractables by EPA Method 625

1,2,4-Trichlorobenzene	ND		9.8	0.48	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,2-Dichlorobenzene	ND		9.8	0.14	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,2-Diphenylhydrazine	ND		9.8	0.062	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,3-Dichlorobenzene	ND		9.8	0.067	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,4-Dichlorobenzene	ND		9.8	0.088	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4,6-Trichlorophenol	ND		4.9	0.23	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dichlorophenol	ND		4.9	0.29	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dimethylphenol	0.15	J	4.9	0.13	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dinitrophenol	ND		9.8	0.82	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dinitrotoluene	ND		4.9	0.28	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,6-Dinitrotoluene	ND		4.9	0.70	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Chloronaphthalene	ND		4.9	0.068	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Chlorophenol	ND		4.9	0.15	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Nitrophenol	ND		4.9	0.14	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.										
Sampled: 04/09/10 11:15 Recvd: 04/09/10 15:55										
Acid and Base/Neutral Extractables by EPA Method 625 - cont.										
3,3'-Dichlorobenzidine	ND		4.9	0.81	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4,6-Dinitro-2-methylphenol	ND		9.8	0.75	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Bromophenyl phenyl ether	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Chloro-3-methylphenol	ND		4.9	0.55	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Chlorophenyl phenyl ether	ND		4.9	0.20	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Nitrophenol	ND		9.8	1.3	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Acenaphthene	ND		4.9	0.059	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Acenaphthylene	ND		4.9	0.033	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Anthracene	ND		4.9	0.051	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzidine	ND	L	78	2.5	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(a)anthracene	ND		4.9	0.042	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(a)pyrene	ND		4.9	0.057	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(b)fluoranthene	ND		4.9	0.060	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(g)h)perylene	ND		4.9	0.098	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(k)fluoranthene	ND		4.9	0.041	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-chloroethoxy)methane	ND		4.9	0.083	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-chloroethyl)ether	ND		4.9	1.1	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,2'-Oxybis(1-Chloropropane)	ND		4.9	0.084	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-ethylhexyl)phthalate	ND		9.8	0.85	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Butyl benzyl phthalate	ND		4.9	1.3	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Chrysene	ND		4.9	0.035	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Dibenzo(a,h)anthracene	ND		4.9	0.054	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Diethyl phthalate	ND	L	4.9	0.17	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Dimethyl phthalate	ND	L	4.9	0.16	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Di-n-butyl phthalate	ND	L	4.9	0.92	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Di-n-octyl phthalate	ND		4.9	4.4	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Fluoranthene	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Fluorene	ND		4.9	0.042	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorobenzene	ND		4.9	0.27	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorobutadiene	ND		4.9	0.80	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorocyclopentadiene	ND		4.9	0.44	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachloroethane	ND		4.9	0.47	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Indeno(1,2,3-cd)pyrene	ND		4.9	0.18	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Isophorone	ND		4.9	0.15	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Naphthalene	0.17	J	4.9	0.079	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Nitrobenzene	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodimethylamine	ND		9.8	0.94	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodi-n-propylamine	ND		4.9	0.23	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodiphenylamine	ND	L	4.9	0.39	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Pentachlorophenol	ND		9.8	0.40	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenanthrene	ND	L	4.9	0.070	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenol	13		4.9	0.12	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Pyrene	ND	L	4.9	0.040	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.										
						Sampled: 04/09/10 11:15	Recvd: 04/09/10 15:55			

Acid and Base/Neutral Extractables by EPA Method 625 - cont.

2-Fluorophenol	85 %						04/13/10 08:29	MAF	10D0825	625
Phenol-d5	103 %						04/13/10 08:29	MAF	10D0825	625
Nitrobenzene-d5	97 %						04/13/10 08:29	MAF	10D0825	625
2-Fluorobiphenyl	84 %						04/13/10 08:29	MAF	10D0825	625
2,4,6-Tribromophenol	113 %						04/13/10 08:29	MAF	10D0825	625
p-Terphenyl-d14	55 %						04/13/10 08:29	MAF	10D0825	625

Organochlorine Pesticides and PCBs by EPA Method 608

Aroclor 1016	ND	QSU	0.058	0.037	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1221	ND	QSU	0.058	0.039	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1232	ND	QSU	0.058	0.048	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1242	ND	QSU	0.058	0.043	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1248	ND	QSU	0.058	0.035	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1254	ND	QSU	0.058	0.014	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1260	ND	QSU	0.058	0.010	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1262	ND	QSU	0.058	0.048	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1268	ND	QSU	0.058	0.023	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Decachlorobiphenyl	49 %	QSU	Surr Limits: (26-145%)				04/13/10 07:53	JxM	10D0875	608
Tetrachloro-m-xylene	79 %	QSU	Surr Limits: (25-152%)				04/13/10 07:53	JxM	10D0875	608
4,4'-DDD [2C]	ND		0.049	0.0089	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
4,4'-DDE [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
4,4'-DDT [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Aldrin [2C]	ND		0.049	0.0064	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
alpha-BHC [2C]	ND		0.049	0.0064	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
beta-BHC [2C]	ND		0.049	0.024	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Chlordane [2C]	ND		0.49	0.028	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
delta-BHC [2C]	ND		0.049	0.0098	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Dieldrin [2C]	ND		0.049	0.0095	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan I [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan II [2C]	ND		0.049	0.012	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan sulfate [2C]	ND		0.049	0.015	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endrin [2C]	ND		0.049	0.013	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endrin aldehyde [2C]	ND		0.049	0.016	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
gamma-BHC (Lindane) [2C]	0.028	J	0.049	0.0058	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Heptachlor [2C]	ND		0.049	0.0083	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Heptachlor epoxide [2C]	ND		0.049	0.0051	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Toxaphene [2C]	ND		0.49	0.12	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Decachlorobiphenyl [2C]	21 %		Surr Limits: (15-139%)				04/15/10 13:23	DGB	10D0869	608
Tetrachloro-m-xylene [2C]	61 %		Surr Limits: (30-139%)				04/15/10 13:23	DGB	10D0869	608

Total Metals by EPA 200 Series Methods

Antimony	ND	D02	0.400	0.136	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Arsenic	0.0145		0.0100	0.0056	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Beryllium	0.0114		0.0020	0.0002	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Cadmium	0.0022		0.0010	0.0003	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Calcium	40500	D08	50.0	10.0	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Chromium	ND		0.0040	0.0009	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Copper	0.0070	J	0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7

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National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		
Total Metals by EPA 200 Series Methods - cont.										
Lead	ND	D02	0.0250	0.0150	mg/L	5.00	04/14/10 10:53	DAN	10D1007	200.7
Magnesium	4390	D08	4.00	0.868	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Nickel	ND		0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Selenium	ND	D02	0.300	0.174	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Silver	ND		0.0030	0.0012	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Sodium	19100	D08	100	32.4	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Thallium	ND	D02	0.100	0.0512	mg/L	5.00	04/14/10 10:53	DAN	10D1007	200.7
Zinc	0.0378		0.0100	0.0015	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Mercury	ND	S9	0.0012	0.0007	mg/L	1.00	04/13/10 17:12	MXM	10D1099	245.1
General Chemistry Parameters										
Oil and Grease	3.0	J	5.0	1.4	mg/L	1.00	04/12/10 11:40	JME	10D0971	1664A
Chloride	220000	D08	20000	9200	mg/L	20000	04/20/10 15:04	KLD	10D1994	4500-CL E
Cyanide	ND		0.0100	NR	mg/L	1.00	04/17/10 11:05	JME	10D1532	335.4
pH	5.78	HFT	0.00500	0.00	SU	1.00	04/10/10 00:07	JFR	10D1046	9040
Total Recoverable Phenolics	0.0099	J	0.0100	0.0050	mg/L	1.00	04/14/10 16:36	KLD	10D1239	420.4
Total Dissolved Solids	308000	D08, B	2000	800	mg/L	200	04/13/10 22:00	AMP	10D1135	2540C
Specific Conductance (25 C)	160000		NA	0.0	umhos/cm	1.00	04/12/10 10:43	KLD	10D1002	120.1
Total Organic Carbon	127	D08	40.0	17.4	mg/L	40.0	04/22/10 21:15	KLD	10D2194	9060
Total Organic Halides (Tox)	9330	D15, B	5000	1630	ug/L	1.00	04/22/10 10:37	JMM	10D1897	9020

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Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Acid and Base/Neutral Extractables by EPA Method 625									
625	10D0825	RTD1040-01	1,020.00	mL	1.00	mL	04/10/10 09:27	LTT	3510C MB
General Chemistry Parameters									
120.1	10D1002	RTD1040-01	50.00	mL	50.00	mL	04/12/10 10:43	KLD	No prep Conductance
1684A	10D0971	RTD1040-01	1,010.00	mL	1,000.00	mL	04/12/10 11:40	JME	No prep Oil and Grease
2540C	10D1135	RTD1040-01	100.00	mL	100.00	mL	04/13/10 22:00	MDM	Solids
335.4	10D1532	RTD1040-01	50.00	mL	50.00	mL	04/16/10 14:05	AMP	Cn Digestion
420.4	10D1239	RTD1040-01	50.00	mL	50.00	mL	04/14/10 12:38	JME	TRP Distillation
4500-CL E	10D1994	RTD1040-01	2.00	mL	2.00	mL	04/20/10 13:04	KLD	No Prep Chloride
9020	10D1897	RTD1040-01	0.40	mL	100.00	mL	04/20/10 12:53	JMM	No prep TOX
9040	10D1046	RTD1040-01	1.00	mL	1.00	mL	04/10/10 00:07	JFR	pH
9060	10D2194	RTD1040-01	40.00	mL	40.00	mL	04/22/10 16:33	KLD	No prep Carbon
Organochlorine Pesticides and PCBs by EPA Method 608									
608	10D0875	RTD1040-01	1,030.00	mL	2.00	mL	04/12/10 05:00	BML	3510C GC
608	10D0869	RTD1040-01	1,030.00	mL	10.00	mL	04/11/10 09:00	KMB	3510C GC
Total Metals by EPA 200 Series Methods									
200.7	10D1007	RTD1040-01	50.00	mL	50.00	mL	04/13/10 07:45	KCW	3005A
245.1	10D1099	RTD1040-01	5.00	mL	50.00	mL	04/13/10 13:30	MXM	7470A
Volatile Organic Compounds									
624	10D0944	RTD1040-01	5.00	mL	5.00	mL	04/12/10 10:54	TRB	5030B MS

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Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Volatile Organic Compounds										
Blank Analyzed: 04/12/10 (Lab Number:10D0944-BLK1, Batch: 10D0944)										
1,1,1-Trichloroethane			5.0	0.38	ug/L	ND				
1,1,2,2-Tetrachloroethane			5.0	0.26	ug/L	ND				
1,1,2-Trichloroethane			5.0	0.48	ug/L	ND				
1,1-Dichloroethane			5.0	0.59	ug/L	ND				
1,1-Dichloroethene			5.0	0.85	ug/L	ND				
1,2-Dichlorobenzene			5.0	0.44	ug/L	ND				
1,2-Dichloroethane			5.0	0.60	ug/L	ND				
1,2-Dichloropropane			5.0	0.61	ug/L	ND				
1,3-Dichlorobenzene			5.0	0.54	ug/L	ND				
1,4-Dichlorobenzene			5.0	0.51	ug/L	ND				
2-Chloroethyl vinyl ether			25	1.8	ug/L	ND				
Benzene			5.0	0.60	ug/L	ND				
Bromodichloromethane			5.0	0.54	ug/L	ND				
Bromoform			5.0	0.47	ug/L	ND				
Bromomethane			5.0	1.2	ug/L	ND				
Carbon Tetrachloride			5.0	0.51	ug/L	ND				
Chlorobenzene			5.0	0.48	ug/L	ND				
Chlorodibromomethane			5.0	0.41	ug/L	ND				
Chloroethane			5.0	0.87	ug/L	ND				
Chloroform			5.0	0.54	ug/L	ND				
Chloromethane			5.0	0.64	ug/L	ND				
cis-1,3-Dichloropropene			5.0	0.33	ug/L	ND				
Ethylbenzene			5.0	0.46	ug/L	ND				
Methylene Chloride			5.0	0.81	ug/L	ND				
Tetrachloroethene			5.0	0.34	ug/L	ND				
Toluene			5.0	0.45	ug/L	ND				
trans-1,2-Dichloroethene			5.0	0.59	ug/L	ND				
trans-1,3-Dichloropropene			5.0	0.44	ug/L	ND				
Trichloroethene			5.0	0.60	ug/L	ND				
Trichlorofluoromethane			5.0	0.45	ug/L	ND				
Vinyl chloride			5.0	0.75	ug/L	ND				
Surrogate:					ug/L		96	88-132		
1,2-Dichloroethane-d4					ug/L		96	78-122		
Surrogate:					ug/L		96	78-122		
4-Bromofluorobenzene					ug/L		99	87-110		
Surrogate: Toluene-d8					ug/L		99	87-110		

LCS Analyzed: 04/12/10 (Lab Number:10D0944-BS1, Batch: 10D0944)

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Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% RPD	Data
							Limit	Limit	Qualifiers
Volatile Organic Compounds									
LCS Analyzed: 04/12/10 (Lab Number:10D0944-BS1, Batch: 10D0944)									
1,1,1-Trichloroethane		20.0	5.0	0.38	ug/L	18.5	93	75-125	
1,1,2,2-Tetrachloroethane		20.0	5.0	0.26	ug/L	17.0	85	61-140	
1,1,2-Trichloroethane		20.0	5.0	0.48	ug/L	18.6	93	71-129	
1,1-Dichloroethane		20.0	5.0	0.59	ug/L	19.0	95	73-128	
1,1-Dichloroethene		20.0	5.0	0.85	ug/L	18.7	94	51-150	
1,2-Dichlorobenzene		20.0	5.0	0.44	ug/L	20.7	103	63-137	
1,2-Dichloroethane		20.0	5.0	0.60	ug/L	19.3	97	68-132	
1,2-Dichloropropane		20.0	5.0	0.61	ug/L	19.6	98	34-166	
1,3-Dichlorobenzene		20.0	5.0	0.54	ug/L	21.0	105	73-127	
1,4-Dichlorobenzene		20.0	5.0	0.51	ug/L	20.0	100	63-137	
2-Chloroethyl vinyl ether		100	25	1.8	ug/L	103	103	1-224	
Benzene		20.0	5.0	0.60	ug/L	19.5	87	64-136	
Bromodichloromethane		20.0	5.0	0.54	ug/L	19.4	97	66-135	
Bromoform		20.0	5.0	0.47	ug/L	16.9	85	71-129	
Bromomethane		20.0	5.0	1.2	ug/L	18.8	94	14-186	
Carbon Tetrachloride		20.0	5.0	0.51	ug/L	18.2	91	73-127	
Chlorobenzene		20.0	5.0	0.48	ug/L	19.3	96	66-134	
Chlorodibromomethane		20.0	5.0	0.41	ug/L	18.2	91	68-133	
Chloroethane		20.0	5.0	0.87	ug/L	17.0	85	38-162	
Chloroform		20.0	5.0	0.54	ug/L	18.9	94	68-133	
Chloromethane		20.0	5.0	0.64	ug/L	20.0	100	1-204	
cis-1,3-Dichloropropene		20.0	5.0	0.33	ug/L	19.0	85	24-176	
Ethylbenzene		20.0	5.0	0.46	ug/L	19.1	96	59-141	
Methylene Chloride		20.0	5.0	0.81	ug/L	20.1	101	61-140	
Tetrachloroethene		20.0	5.0	0.34	ug/L	18.4	82	74-127	
Toluene		20.0	5.0	0.45	ug/L	18.9	95	75-126	
trans-1,2-Dichloroethene		20.0	5.0	0.59	ug/L	19.2	96	70-131	
trans-1,3-Dichloropropene		20.0	5.0	0.44	ug/L	18.0	90	50-150	
Trichloroethene		20.0	5.0	0.60	ug/L	18.1	90	67-134	
Trichlorofluoromethane		20.0	5.0	0.45	ug/L	18.9	94	48-152	
Vinyl chloride		20.0	5.0	0.75	ug/L	19.5	97	4-196	
Surrogate:					ug/L		95	88-132	
1,2-Dichloroethane-d4					ug/L		99	78-122	
Surrogate:					ug/L		98	87-110	
4-Bromofluorobenzene					ug/L				
Surrogate: Toluene-d8					ug/L				

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Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 04/13/10 (Lab Number:10D0825-BLK1, Batch: 10D0825)											
1,2,4-Trichlorobenzene			10	0.49	ug/L	ND					
1,2-Dichlorobenzene			10	0.14	ug/L	ND					
1,2-Diphenylhydrazine			10	0.063	ug/L	ND					
1,3-Dichlorobenzene			10	0.069	ug/L	ND					
1,4-Dichlorobenzene			10	0.090	ug/L	ND					
2,4,6-Trichlorophenol			5.0	0.23	ug/L	ND					
2,4-Dichlorophenol			5.0	0.30	ug/L	ND					
2,4-Dimethylphenol			5.0	0.13	ug/L	ND					
2,4-Dinitrophenol			10	0.84	ug/L	ND					
2,4-Dinitrotoluene			5.0	0.26	ug/L	ND					
2,6-Dinitrotoluene			5.0	0.72	ug/L	ND					
2-Chloronaphthalene			5.0	0.068	ug/L	ND					
2-Chlorophenol			5.0	0.16	ug/L	ND					
2-Nitrophenol			5.0	0.14	ug/L	ND					
3,3'-Dichlorobenzidine			5.0	0.82	ug/L	ND					
4,6-Dinitro-2-methylphenol			10	0.76	ug/L	ND					
4-Bromophenyl phenyl ether			5.0	0.11	ug/L	ND					
4-Chloro-3-methylphenol			5.0	0.56	ug/L	ND					
4-Chlorophenyl phenyl ether			5.0	0.21	ug/L	ND					
4-Nitrophenol			10	1.3	ug/L	ND					
Acenaphthene			5.0	0.060	ug/L	ND					
Acenaphthylene			5.0	0.034	ug/L	ND					
Anthracene			5.0	0.052	ug/L	ND					
Benidine			80	2.5	ug/L	ND					
Benzo(a)anthracene			5.0	0.043	ug/L	ND					
Benzo(a)pyrene			5.0	0.058	ug/L	ND					
Benzo(b)fluoranthene			5.0	0.062	ug/L	ND					
Benzo(ghi)perylene			5.0	0.10	ug/L	0.24					J
Benzo(k)fluoranthene			5.0	0.042	ug/L	ND					
Bis(2-chloroethoxy)methane			5.0	0.085	ug/L	ND					
Bis(2-chloroethyl)ether			5.0	1.1	ug/L	ND					
2,2'-Oxybis(1-Chloropropane)			5.0	0.086	ug/L	ND					
Bis(2-ethylhexyl)phthalate			10	0.86	ug/L	ND					
Butyl benzyl phthalate			5.0	1.3	ug/L	ND					

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 825											
Blank Analyzed: 04/13/10 (Lab Number:10D0825-BLK1, Batch: 10D0825)											
Chrysene			5.0	0.036	ug/L	ND					
Dibenzo(a,h)anthracene			5.0	0.055	ug/L	0.33					J
Diethyl phthalate			5.0	0.17	ug/L	ND					
Dimethyl phthalate			5.0	0.17	ug/L	ND					
Di-n-butyl phthalate			5.0	0.94	ug/L	ND					
Di-n-octyl phthalate			5.0	4.5	ug/L	ND					
Fluoranthene			5.0	0.11	ug/L	ND					
Fluorene			5.0	0.043	ug/L	ND					
Hexachlorobenzene			5.0	0.28	ug/L	ND					
Hexachlorobutadiene			5.0	0.62	ug/L	ND					
Hexachlorocyclopentadiene			5.0	0.45	ug/L	ND					
Hexachloroethane			5.0	0.48	ug/L	ND					
Indeno(1,2,3-cd)pyrene			5.0	0.19	ug/L	ND					
Isophorone			5.0	0.16	ug/L	ND					
Naphthalene			5.0	0.080	ug/L	ND					
Nitrobenzene			5.0	0.11	ug/L	ND					
N-Nitrosodimethylamine			10	0.96	ug/L	ND					
N-Nitrosodi-n-propylamine			5.0	0.23	ug/L	ND					
N-Nitrosodiphenylamine			5.0	0.40	ug/L	ND					
Pentachlorophenol			10	0.41	ug/L	ND					
Phenanthrene			5.0	0.071	ug/L	ND					
Phenol			5.0	0.12	ug/L	ND					
Pyrene			5.0	0.041	ug/L	ND					
Surrogate:					ug/L		53	17-120			
2-Fluorophenol					ug/L		40	10-120			
Surrogate: Phenol-d5					ug/L		96	42-120			
Surrogate:					ug/L		96	44-120			
Nitrobenzene-d5					ug/L		106	49-122			
Surrogate:					ug/L		108	22-125			
2-Fluorobiphenyl					ug/L						
Surrogate:					ug/L						
2,4,6-Tribromophenol					ug/L						
Surrogate:					ug/L						
p-Terphenyl-d14					ug/L						
LCS Analyzed: 04/13/10 (Lab Number:10D0825-BS1, Batch: 10D0825)											
1,2,4-Trichlorobenzene		50.0	10	0.49	ug/L	39.3	79	44-142			
1,2-Dichlorobenzene		50.0	10	0.14	ug/L	38.7	77	32-129			
1,2-Diphenylhydrazine			10	0.063	ug/L	60.9		47-146			
1,3-Dichlorobenzene		50.0	10	0.069	ug/L	37.2	74	1-172			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% RPD Limits	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625										
LCS Analyzed: 04/13/10 (Lab Number: 10D0825-BS1, Batch: 10D0825)										
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	37.8	76	20-124		
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	61.3	123	37-144		
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	54.7	109	39-135		
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	48.3	97	32-119		
2,4-Dinitrophenol		50.0	10	0.84	ug/L	39.4	79	1-191		
2,4-Dinitrotoluene		50.0	5.0	0.26	ug/L	63.9	128	39-139		
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	66.0	132	50-158		
2-Chloronaphthalene		50.0	5.0	0.068	ug/L	51.2	102	60-118		
2-Chlorophenol		50.0	5.0	0.16	ug/L	46.2	92	23-134		
2-Nitrophenol		50.0	5.0	0.14	ug/L	53.6	107	29-182		
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	85.3	171	1-262		E
4,6-Dinitro-2-methylphenol		50.0	10	0.76	ug/L	66.9	134	1-181		
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	59.0	118	53-127		
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	59.8	120	22-147		
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	55.9	112	25-158		
4-Nitrophenol		50.0	10	1.3	ug/L	28.9	58	1-132		
Acenaphthene		50.0	5.0	0.060	ug/L	55.0	110	47-145		
Acenaphthylene		50.0	5.0	0.034	ug/L	56.9	114	33-145		
Anthracene		50.0	5.0	0.052	ug/L	62.5	125	27-133		
Benzidine		50.0	80	2.5	ug/L	118	237	1-120		L1,E
Benzo(a)anthracene		50.0	5.0	0.043	ug/L	60.3	121	33-143		
Benzo(a)pyrene		50.0	5.0	0.058	ug/L	61.0	122	17-163		
Benzo(b)fluoranthene		50.0	5.0	0.062	ug/L	55.1	110	24-159		
Benzo(ghi)perylene		50.0	5.0	0.10	ug/L	66.4	133	1-219		B
Benzo(k)fluoranthene		50.0	5.0	0.042	ug/L	52.1	104	11-162		
Bis(2-chloroethoxy)methane		50.0	5.0	0.085	ug/L	46.0	92	33-184		
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	42.0	84	12-158		
2,2'-Oxybis(1-Chloropropane)		50.0	5.0	0.086	ug/L	43.6	87	36-166		
Bis(2-ethylhexyl)phthalate		50.0	10	0.86	ug/L	63.5	127	8-158		
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	67.3	135	1-152		
Chrysene		50.0	5.0	0.036	ug/L	62.3	125	17-168		
Dibenzo(a,h)anthracene		50.0	5.0	0.055	ug/L	62.7	125	1-227		B
Diethyl phthalate		50.0	5.0	0.17	ug/L	62.5	125	1-114		L1
Dimethyl phthalate		50.0	5.0	0.17	ug/L	57.2	114	1-112		L1

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National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625										
LCS Analyzed: 04/13/10 (Lab Number:10D0825-BS1, Batch: 10D0825)										
Di-n-butyl phthalate		50.0	5.0	0.94	ug/L	66.9	134	1-118		L1
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	60.8	122	4-146		
Fluoranthene		50.0	5.0	0.11	ug/L	62.4	125	26-137		
Fluorene		50.0	5.0	0.043	ug/L	58.7	117	59-121		
Hexachlorobenzene		50.0	5.0	0.28	ug/L	55.8	112	1-152		
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	37.6	75	24-116		
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	32.1	64	5-120		
Hexachloroethane		50.0	5.0	0.48	ug/L	39.2	78	40-113		
Indeno(1,2,3-cd)pyrene		50.0	5.0	0.19	ug/L	64.5	129	1-171		
Isophorone		50.0	5.0	0.16	ug/L	48.4	97	21-196		
Naphthalene		50.0	5.0	0.080	ug/L	45.9	92	21-133		
Nitrobenzene		50.0	5.0	0.11	ug/L	46.5	93	35-180		
N-Nitrosodimethylamine		50.0	10	0.96	ug/L	27.3	55	19-120		
N-Nitrosodi-n-propylamine		50.0	5.0	0.23	ug/L	51.2	102	1-230		
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	72.8	146	54-125		L1
Pentachlorophenol		50.0	10	0.41	ug/L	64.1	128	14-176		
Phenanthrene		50.0	5.0	0.071	ug/L	62.3	125	54-120		L1
Phenol		50.0	5.0	0.12	ug/L	22.0	44	5-112		
Pyrene		50.0	5.0	0.041	ug/L	64.0	128	52-115		L1
Surrogate: 2-Fluorophenol					ug/L		54	17-120		
Surrogate: Phenol-d5					ug/L		40	10-120		
Surrogate: Nitrobenzene-d5					ug/L		95	42-120		
Surrogate: 2-Fluorobiphenyl					ug/L		98	44-120		
Surrogate: 2,4,6-Tribromophenol					ug/L		118	49-122		
Surrogate: p-Terphenyl-d14					ug/L		109	22-125		
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)										
1,2,4-Trichlorobenzene		50.0	10	0.49	ug/L	37.8	76	44-142	4	34
1,2-Dichlorobenzene		50.0	10	0.14	ug/L	37.6	75	32-129	3	38
1,2-Diphenylhydrazine			10	0.063	ug/L	58.9		47-146	3	20
1,3-Dichlorobenzene		50.0	10	0.069	ug/L	35.9	72	1-172	4	37
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	36.7	73	20-124	3	40
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	58.9	118	37-144	4	20
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	53.5	107	39-135	2	23
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	49.5	99	32-119	2	18

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National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)											
2,4-Dinitrophenol		50.0	10	0.84	ug/L	39.2	78	1-191	0.5	29	
2,4-Dinitrotoluene		50.0	5.0	0.26	ug/L	62.6	125	39-139	2	20	
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	62.8	126	50-158	5	17	
2-Chloronaphthalene		50.0	5.0	0.068	ug/L	48.9	98	60-118	5	30	
2-Chlorophenol		50.0	5.0	0.16	ug/L	44.7	89	23-134	3	26	
2-Nitrophenol		50.0	5.0	0.14	ug/L	51.2	102	29-182	5	28	
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	85.0	170	1-262	0.4	31	E
4,6-Dinitro-2-methylphenol		50.0	10	0.76	ug/L	66.6	133	1-181	0.5	30	
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	56.4	113	53-127	5	16	
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	60.0	120	22-147	0.4	16	
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	53.5	107	25-158	4	15	
4-Nitrophenol		50.0	10	1.3	ug/L	28.5	57	1-132	1	24	
Acenaphthene		50.0	5.0	0.060	ug/L	52.8	106	47-145	4	25	
Acenaphthylene		50.0	5.0	0.034	ug/L	54.6	109	33-145	4	22	
Anthracene		50.0	5.0	0.052	ug/L	60.4	121	27-133	3	15	
Benzo(d)pyrene		50.0	80	2.5	ug/L	127	254	1-120	7	50	L1,E
Benzo(a)anthracene		50.0	5.0	0.043	ug/L	58.4	117	33-143	3	15	
Benzo(a)pyrene		50.0	5.0	0.058	ug/L	58.7	117	17-163	4	15	
Benzo(b)fluoranthene		50.0	5.0	0.062	ug/L	52.6	105	24-159	5	17	
Benzo(g,h,i)perylene		50.0	5.0	0.10	ug/L	64.8	130	1-219	2	19	B
Benzo(k)fluoranthene		50.0	5.0	0.042	ug/L	51.4	103	11-162	1	19	
Bis(2-chloroethoxy)methane		50.0	5.0	0.085	ug/L	43.9	88	33-184	5	23	
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	40.6	81	12-158	3	33	
2,2'-Oxybis(1-Chloropropane)		50.0	5.0	0.086	ug/L	41.6	83	36-166	5	36	
Bis(2-ethylhexyl)phthalate		50.0	10	0.86	ug/L	62.2	124	8-158	2	15	
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	65.2	130	1-152	3	15	
Chrysene		50.0	5.0	0.036	ug/L	60.3	121	17-168	3	15	
Dibenzo(a,h)anthracene		50.0	5.0	0.055	ug/L	61.6	123	1-227	2	18	B
Diethyl phthalate		50.0	5.0	0.17	ug/L	60.5	121	1-114	3	15	L1
Dimethyl phthalate		50.0	5.0	0.17	ug/L	55.0	110	1-112	4	15	
Di-n-butyl phthalate		50.0	5.0	0.94	ug/L	65.4	131	1-118	2	15	L1
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	59.3	119	4-146	3	15	
Fluoranthene		50.0	5.0	0.11	ug/L	60.8	122	26-137	3	15	
Fluorene		50.0	5.0	0.043	ug/L	58.1	112	59-121	5	18	

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Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)											
Hexachlorobenzene		50.0	5.0	0.28	ug/L	53.9	108	1-152	3	15	
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	36.9	74	24-116	2	50	
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	31.8	64	5-120	1	50	
Hexachloroethane		50.0	5.0	0.48	ug/L	37.9	76	40-113	3	43	
Indeno(1,2,3-cd)pyrene		50.0	5.0	0.19	ug/L	63.2	126	1-171	2	17	
Isophorone		50.0	5.0	0.16	ug/L	46.1	92	21-196	5	21	
Naphthalene		50.0	5.0	0.080	ug/L	44.3	89	21-133	4	31	
Nitrobenzene		50.0	5.0	0.11	ug/L	44.8	90	35-180	4	27	
N-Nitrosodimethylamine		50.0	10	0.96	ug/L	25.3	51	19-120	6	22	
N-Nitrosodi-n-propylamine		50.0	5.0	0.23	ug/L	49.3	99	1-230	4	23	
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	70.9	142	54-125	3	15	L1
Pentachlorophenol		50.0	10	0.41	ug/L	62.4	125	14-176	3	21	
Phenanthrene		50.0	5.0	0.071	ug/L	60.3	121	54-120	3	16	L1
Phenol		50.0	5.0	0.12	ug/L	21.6	43	5-112	2	36	
Pyrene		50.0	5.0	0.041	ug/L	62.3	125	52-115	3	15	L1
Surrogate: 2-Fluorophenol					ug/L		51	17-120			
Surrogate: Phenol-d5					ug/L		39	10-120			
Surrogate: Nitrobenzene-d5					ug/L		89	42-120			
Surrogate: 2-Fluorobiphenyl					ug/L		92	44-120			
Surrogate: 2,4,6-Tribromophenol					ug/L		112	49-122			
Surrogate: p-Terphenyl-d14					ug/L		108	22-125			

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Project: Brine - Priority Pollutant Analysis
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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Organochlorine Pesticides and PCBs by EPA Method 608										
Blank Analyzed: 04/14/10 (Lab Number:10D0869-BLK1, Batch: 10D0869)										
4,4'-DDD			0.050	0.0092	ug/L	ND				
4,4'-DDE			0.050	0.012	ug/L	ND				
4,4'-DDT			0.050	0.011	ug/L	ND				
Aldrin			0.050	0.0066	ug/L	ND				
alpha-BHC			0.050	0.0066	ug/L	ND				
beta-BHC			0.050	0.025	ug/L	ND				
Chlordane			0.50	0.029	ug/L	ND				
delta-BHC			0.050	0.010	ug/L	ND				
Dieldrin			0.050	0.0098	ug/L	ND				
Endosulfan I			0.050	0.011	ug/L	ND				
Endosulfan II			0.050	0.012	ug/L	ND				
Endosulfan sulfate			0.050	0.016	ug/L	ND				
Endrin			0.050	0.014	ug/L	ND				
Endrin aldehyde			0.050	0.016	ug/L	ND				
gamma-BHC (Lindane)			0.050	0.0060	ug/L	ND				
Heptachlor			0.050	0.0085	ug/L	ND				
Heptachlor epoxide			0.050	0.0053	ug/L	ND				
Toxaphene			0.50	0.12	ug/L	ND				
Surrogate:					ug/L		90	15-139		
Decachlorobiphenyl					ug/L		70	30-139		
Surrogate:										
Tetrachloro-m-xylene										
LCS Analyzed: 04/14/10 (Lab Number:10D0869-BS1, Batch: 10D0869)										
4,4'-DDD		0.500	0.050	0.0092	ug/L	0.400	80	25-139		
4,4'-DDE		0.500	0.050	0.012	ug/L	0.364	73	49-127		
4,4'-DDT		0.500	0.050	0.011	ug/L	0.383	77	47-130		
Aldrin		0.500	0.050	0.0066	ug/L	0.329	66	35-120		
alpha-BHC		0.500	0.050	0.0066	ug/L	0.354	71	39-121		
beta-BHC		0.500	0.050	0.025	ug/L	0.409	82	39-138		
Chlordane			0.50	0.029	ug/L	ND				
delta-BHC		0.500	0.050	0.010	ug/L	0.385	77	40-121		
Dieldrin		0.500	0.050	0.0098	ug/L	0.374	75	41-131		
Endosulfan I		0.500	0.050	0.011	ug/L	0.315	63	41-126		
Endosulfan II		0.500	0.050	0.012	ug/L	0.340	68	32-134		
Endosulfan sulfate		0.500	0.050	0.016	ug/L	0.511	102	46-131		
Endrin		0.500	0.050	0.014	ug/L	0.384	77	43-134		
Endrin aldehyde		0.500	0.050	0.016	ug/L	0.401	80	39-128		
gamma-BHC (Lindane)		0.500	0.050	0.0060	ug/L	0.365	73	68-120		

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Organochlorine Pesticides and PCBs by EPA Method 608											
LCS Analyzed: 04/14/10 (Lab Number:10D0869-BS1, Batch: 10D0869)											
Heptachlor		0.500	0.050	0.0085	ug/L	0.347	69	52-120			
Heptachlor epoxide		0.500	0.050	0.0053	ug/L	0.369	74	65-120			
Toxaphene			0.50	0.12	ug/L	ND					
<i>Surrogate:</i>					ug/L		70	15-139			
<i>Decachlorobiphenyl</i>											
<i>Surrogate:</i>					ug/L		68	30-139			
<i>Tetrachloro-m-xylene</i>											
Organochlorine Pesticides and PCBs by EPA Method 608											
Blank Analyzed: 04/13/10 (Lab Number:10D0875-BLK1, Batch: 10D0875)											
Aroclor 1016			0.060	0.038	ug/L	ND					QSU
Aroclor 1221			0.060	0.040	ug/L	ND					QSU
Aroclor 1232			0.060	0.049	ug/L	ND					QSU
Aroclor 1242			0.060	0.044	ug/L	ND					QSU
Aroclor 1248			0.060	0.036	ug/L	ND					QSU
Aroclor 1254			0.060	0.015	ug/L	ND					QSU
Aroclor 1260			0.060	0.010	ug/L	ND					QSU
Aroclor 1262			0.060	0.050	ug/L	ND					QSU
Aroclor 1268			0.060	0.024	ug/L	ND					QSU
<i>Surrogate:</i>					ug/L		78	26-145			QSU
<i>Decachlorobiphenyl</i>											
<i>Surrogate:</i>					ug/L		89	25-152			QSU
<i>Tetrachloro-m-xylene</i>											
LCS Analyzed: 04/13/10 (Lab Number:10D0875-BS1, Batch: 10D0875)											
Aroclor 1016		1.00	0.060	0.038	ug/L	1.00	100	58-141			QSU
Aroclor 1221			0.060	0.040	ug/L	ND					QSU
Aroclor 1232			0.060	0.049	ug/L	ND					QSU
Aroclor 1242			0.060	0.044	ug/L	ND					QSU
Aroclor 1248			0.060	0.036	ug/L	ND					QSU
Aroclor 1254			0.060	0.015	ug/L	ND					QSU
Aroclor 1260		1.00	0.060	0.010	ug/L	1.12	112	56-144			QSU
Aroclor 1262			0.060	0.050	ug/L	ND					QSU
Aroclor 1268			0.060	0.024	ug/L	ND					QSU
<i>Surrogate:</i>					ug/L		89	26-145			QSU
<i>Decachlorobiphenyl</i>											
<i>Surrogate:</i>					ug/L		97	25-152			QSU
<i>Tetrachloro-m-xylene</i>											

Matrix Spike Analyzed: 04/13/10 (Lab Number:10D0875-MS1, Batch: 10D0875)

QC Source Sample: RTD1040-01

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Organochlorine Pesticides and PCBs by EPA Method 608											
Matrix Spike Analyzed: 04/13/10 (Lab Number:10D0875-MS1, Batch: 10D0875)											
QC Source Sample: RTD1040-01											
Aroclor 1016	ND	1.92	0.12	0.074	ug/L	1.82	95	58-141			QSU
Aroclor 1221	ND		0.12	0.077	ug/L	ND					QSU
Aroclor 1232	ND		0.12	0.095	ug/L	ND					QSU
Aroclor 1242	ND		0.12	0.085	ug/L	ND					QSU
Aroclor 1248	ND		0.12	0.069	ug/L	ND					QSU
Aroclor 1254	ND		0.12	0.028	ug/L	ND					QSU
Aroclor 1260	ND	1.92	0.12	0.020	ug/L	1.69	88	56-144			QSU
Aroclor 1262	ND		0.12	0.096	ug/L	ND					QSU
Aroclor 1268	ND		0.12	0.046	ug/L	ND					QSU
Surrogate:					ug/L		76	26-145			QSU
Decachlorobiphenyl											
Surrogate:					ug/L		98	25-152			QSU
Tetrachloro-m-xylene											
Matrix Spike Dup Analyzed: 04/13/10 (Lab Number:10D0875-MSD1, Batch: 10D0875)											
QC Source Sample: RTD1040-01											
Aroclor 1016	ND	1.92	0.12	0.074	ug/L	1.73	90	58-141	5	30	QSU
Aroclor 1221	ND		0.12	0.077	ug/L	ND					QSU
Aroclor 1232	ND		0.12	0.095	ug/L	ND					QSU
Aroclor 1242	ND		0.12	0.085	ug/L	ND					QSU
Aroclor 1248	ND		0.12	0.069	ug/L	ND					QSU
Aroclor 1254	ND		0.12	0.028	ug/L	ND					QSU
Aroclor 1260	ND	1.92	0.12	0.020	ug/L	1.37	71	56-144	21	30	QSU
Aroclor 1262	ND		0.12	0.096	ug/L	ND					QSU
Aroclor 1268	ND		0.12	0.046	ug/L	ND					QSU
Surrogate:					ug/L		61	26-145			QSU
Decachlorobiphenyl											
Surrogate:					ug/L		95	25-152			QSU
Tetrachloro-m-xylene											

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Total Metals by EPA 200 Series Methods

Blank Analyzed: 04/13/10 (Lab Number:10D1007-BLK1, Batch: 10D1007)

Antimony			0.0200	0.0068	mg/L	ND					
Arsenic			0.0100	0.0056	mg/L	ND					
Beryllium			0.0020	0.0002	mg/L	ND					
Cadmium			0.0010	0.0003	mg/L	ND					
Calcium			0.5	0.1	mg/L	ND					
Chromium			0.0040	0.0009	mg/L	ND					
Copper			0.0100	0.0013	mg/L	ND					
Lead			0.0050	0.0030	mg/L	ND					
Magnesium			0.200	0.043	mg/L	ND					
Nickel			0.0100	0.0013	mg/L	ND					
Selenium			0.0150	0.0087	mg/L	ND					
Silver			0.0030	0.0012	mg/L	ND					
Sodium			1.0	0.3	mg/L	ND					
Thallium			0.0200	0.0102	mg/L	ND					
Zinc			0.0100	0.0015	mg/L	ND					

LCS Analyzed: 04/13/10 (Lab Number:10D1007-BS1, Batch: 10D1007)

Antimony	0.200	0.0200	0.0068	mg/L	0.198	99	85-115
Arsenic	0.200	0.0100	0.0056	mg/L	0.203	102	85-115
Beryllium	0.200	0.0020	0.0002	mg/L	0.200	100	85-115
Cadmium	0.200	0.0050	0.0003	mg/L	0.192	96	85-115
Calcium	10.0	0.5	0.1	mg/L	9.99	100	85-115
Chromium	0.200	0.0100	0.0009	mg/L	0.199	99	85-115
Copper	0.200	0.0250	0.0013	mg/L	0.192	96	85-115
Lead	0.200	0.0050	0.0030	mg/L	0.198	99	85-115
Magnesium	10.0	0.200	0.043	mg/L	10.0	100	85-115
Nickel	0.200	0.0400	0.0013	mg/L	0.196	98	85-115
Selenium	0.200	0.0150	0.0087	mg/L	0.202	101	85-115
Silver	0.0500	0.0250	0.0012	mg/L	0.0504	101	85-115
Sodium	10.0	1.0	0.3	mg/L	9.75	97	85-115
Thallium	0.200	0.0200	0.0102	mg/L	0.199	100	85-115
Zinc	0.200	0.0200	0.0015	mg/L	0.197	98	85-115

Total Metals by EPA 200 Series Methods

Blank Analyzed: 04/13/10 (Lab Number:10D1099-BLK1, Batch: 10D1099)

Mercury			0.0002	0.0001	mg/L	ND					
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LCS Analyzed: 04/13/10 (Lab Number:10D1099-BS1, Batch: 10D1099)

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National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Total Metals by EPA 200 Series Methods										
LCS Analyzed: 04/13/10 (Lab Number:10D1099-BS1, Batch: 10D1099)										
Mercury		0.00667	0.0002	0.0001	mg/L	0.00653	98	85-115		

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
General Chemistry Parameters										
Blank Analyzed: 04/12/10 (Lab Number:10D0971-BLK1, Batch: 10D0971)										
Oil and Grease			5.0	1.4	mg/L	ND				
LCS Analyzed: 04/12/10 (Lab Number:10D0971-BS1, Batch: 10D0971)										
Oil and Grease		25.0	5.0	1.4	mg/L	23.6	94	78-114		
General Chemistry Parameters										
LCS Analyzed: 04/12/10 (Lab Number:10D1002-BS1, Batch: 10D1002)										
Specific Conductance (25 C)		1000	NA	0.0	umhos/cm	1000	100	90-110		
Duplicate Analyzed: 04/12/10 (Lab Number:10D1002-DUP1, Batch: 10D1002)										
QC Source Sample: RTD1040-01										
Specific Conductance (25 C)	160000		NA	0.0	umhos/cm	158000			1	20
General Chemistry Parameters										
LCS Analyzed: 04/10/10 (Lab Number:10D1046-BS1, Batch: 10D1046)										
pH		7.00	NA	0.00	SU	7.02	100	99.3-100.8		
General Chemistry Parameters										
Blank Analyzed: 04/13/10 (Lab Number:10D1135-BLK1, Batch: 10D1135)										
Total Dissolved Solids			10.0	4.0	mg/L	5.0				J
LCS Analyzed: 04/13/10 (Lab Number:10D1135-BS1, Batch: 10D1135)										
Total Dissolved Solids		500	10.0	4.0	mg/L	513	103	85-115		B
General Chemistry Parameters										
Blank Analyzed: 04/14/10 (Lab Number:10D1239-BLK1, Batch: 10D1239)										
Total Recoverable Phenolics			0.0100	0.0050	mg/L	ND				
LCS Analyzed: 04/14/10 (Lab Number:10D1239-BS1, Batch: 10D1239)										
Total Recoverable Phenolics		0.653	0.0500	0.0250	mg/L	0.514	79	75-125		D08
General Chemistry Parameters										
Blank Analyzed: 04/17/10 (Lab Number:10D1532-BLK1, Batch: 10D1532)										
Cyanide			0.0100	NR	mg/L	ND				
LCS Analyzed: 04/17/10 (Lab Number:10D1532-BS1, Batch: 10D1532)										
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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040
Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/08/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
General Chemistry Parameters											
LCS Analyzed: 04/17/10 (Lab Number:10D1532-BS1, Batch: 10D1532)											
Cyanide		0.400	0.0100	NR	mg/L	0.431	108	90-110			
General Chemistry Parameters											
Blank Analyzed: 04/22/10 (Lab Number:10D1897-BLK1, Batch: 10D1897)											
Total Organic Halides (Tox)			20.0	6.5	ug/L	8.4					J
LCS Analyzed: 04/22/10 (Lab Number:10D1897-BS1, Batch: 10D1897)											
Total Organic Halides (Tox)		100	20.0	6.5	ug/L	115	115	75-125			B
General Chemistry Parameters											
Blank Analyzed: 04/20/10 (Lab Number:10D1994-BLK1, Batch: 10D1994)											
Chloride			1.00	0.46	mg/L	ND					
LCS Analyzed: 04/20/10 (Lab Number:10D1994-BS1, Batch: 10D1994)											
Chloride		25.0	1.00	0.46	mg/L	25.8	103	90-110			
General Chemistry Parameters											
Blank Analyzed: 04/23/10 (Lab Number:10D2194-BLK1, Batch: 10D2194)											
Total Organic Carbon			1.0	0.4	mg/L	ND					
LCS Analyzed: 04/23/10 (Lab Number:10D2194-BS1, Batch: 10D2194)											
Total Organic Carbon		60.0	1.0	0.4	mg/L	60.6	101	90-110			

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THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____
Drinking Water? Yes No

Chain of Custody Record

Client: NATIONAL ENEL GAS
Address: C/O FRONTIER TECHNICAL ASSOCIATES
19120 MAIN ST
CLARENCE, NY 14031
Project Name and Location (State):
Contract/Purchase Order/Quote No:
Project Manager: DAVID HARTY
Specimens Number (When Completed) / Fee Number: (716) 634-2293
Site Contact:
Customer/Project Number:
Date: 4/9/10
Chain of Custody Number: 139805
Page: 1 of 1

Sample ID No. and Description (Consult for each sample they be combined on one line)	Date	Time	METER		CONTAINERS & PRESERVATION		ANALYSIS (Check list if more space is needed)	Special Instructions/ Conditions of Receipt
			TEMP	PRESS	COND	PHOS		
BRINE	4/9/10	11:15					<input checked="" type="checkbox"/> METALS * <input checked="" type="checkbox"/> Cd <input checked="" type="checkbox"/> Cr <input checked="" type="checkbox"/> Cu <input checked="" type="checkbox"/> Fe <input checked="" type="checkbox"/> Pb <input checked="" type="checkbox"/> Zn <input checked="" type="checkbox"/> TOX <input checked="" type="checkbox"/> TDS <input checked="" type="checkbox"/> DIL + CONSR <input checked="" type="checkbox"/> COND. <input checked="" type="checkbox"/> TREAT PHENOLICS <input checked="" type="checkbox"/> TREAT CN <input checked="" type="checkbox"/> PP PCBs <input checked="" type="checkbox"/> PP PESTICIDES <input checked="" type="checkbox"/> PP SEMI-VOL <input checked="" type="checkbox"/> PP VOLATILES	

Sample disposed: Return to Client Archive For _____ Months (longer than 1 month)
 Disposed By Lab DC Requirements (Specify):
 1. Received By: [Signature] Date: 4/9/10 Time: 11:55
 2. Received By: [Signature] Date: _____ Time: _____
 3. Received By: _____ Date: _____ Time: _____

Comments: METALS = Sb, As, Be, Cd, Cu, Pb, Mg, Hg, Ni, Se, Ag, Na, Tl, Zn
 DISTRIBUTION: WHITE - Authorized to Collect with Request; CHAIN OF CUSTODY - Sign for the Sample; BLACK - Final Copy

Signature: [Signature] Date: 4/9/10

From: Stephen Condon
To: foxcon1
CC: Aversa, Jack; Leonardo, Patti; Prather, Kathleen; Sally Rowland
Date: 8/11/2011 12:56 PM
Subject: Brine BUD #B032-11
Attachments: fox_table_a.docx

To: Mr. Donald Fox, Fox Construction

Don:

Please find attached an updated Table A with the addition of the following sites:

Charles Gerber

Mammoser Farms

Alloy Welding & Fabricating

Cherry Creek (T)

Z&M Ag and Turf

as approved locations for spreading of brine. The attached Table replaces the previous Table A attached to the Brine BUD #B032-11 approval dated July 28, 2011. All conditions of the BUD continue in force as stated therein.

My contact information is below; please do not hesitate to reply or call with any questions.

Sincerely,

Steve

Stephen Condon
Organic Recycling & Beneficial Use Section
Division of Materials Management
NYS Department of Environmental Conservation
625 Broadway, 9th Floor
Albany, NY 12233-7253
(518) 402-8706
Fax 402-8681
scondon@gw.dec.state.ny.us

Fox Construction, Inc.- Brine BUD # B032-11, Transporter Permit # 9A-250

Table A
 Approved NYS Brine Spreading Locations
 July 11, 2011

Summit Gravel Products		East Concord	
Jellystone Park of WNY		North Java	14113
Russo Development Inc.		Springville	14141
Preischel Farms		Eden	14057
WD Henry & Sons		Eden	
Hannon Farms		Glenwood	14067
Little Valley Sand & Gravel		Little Valley	14755
Cattaraugus Co. Fairgrounds - racetrack		Little Valley	14755
Leon (T) Highway Dept.		Conewango Valley	
Price Trucking Corp		Buffalo	14220
American Wire Tie		North Collins	14111
Mc Ewan Trucking & Gravel/gravel pit		Springville	14141
Winter's Rigging		North Collins	14111
United Trucking LLC		N. Tonawanda	
Hauling Freight Lines		Angola	14006
Schreiber & Winkelman		Eden	14057
Erie County Ag. Society - racetrack		Hamburg	14075
Stefan Hay Company		North Collins	14111
Dayton (T)		South Dayton	14138
Draper Trucking LLC		Holland	14080
Charles Gerber		Eden	14057
Mammoser Farms		Eden	14057
Alloy Welding & Fabricating		Boston	14025
Cherry Creek (T)		Cherry Creek	14723
Z&M Ag and Turf		North Collins	14111



FOX CONSTRUCTION, INC

3728 Langford Rd.

North Collins, NY 14111

Phone: 716-337-2546 Fax: 716-337-3280

Email: foxcon1@aol.com



WASTE TRANSPORTER PERMIT NUMBER - 9A250

Charles Gerber

N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

ANYWAY PROD. 5

Facility: Charles Gerber
Address: 8174 Cowardin Road
Phone: 716 570-7349 Fax _____

Road names and /or address of location where Brine will be spread:

- 1.) same _____
- 2.) _____
- 3.) _____
- 4.) _____
- 5.) _____
- 6.) _____
- 7.) _____
- 8.) _____
- 9.) _____
- 10. _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control
- Road Stabilization
- De-icing (transport only - do not spread)

Charles Gerber Signature Title owner Date 7/19/11

FOX CONSTRUCTION, INC

Donald E Figo Signature Title AVP Date 7/19/11



FOX CONSTRUCTION, INC
3728 Langford Rd.
North Collins, NY 14111
Phone: 716-337-2546 Fax: 716-337-3280
Email: foxcon1@aol.com
WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Alloy Welding - Fabricating
Address: 976 Everett Rd Boston NY 14025
Phone: 941-6611 Fax: 941-3667

Road names and /or address of location where Brine will be spread:

- | | |
|------------------------|------------|
| 1.) <u>Parking lot</u> | 6.) _____ |
| 2.) _____ | 7.) _____ |
| 3.) _____ | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10.) _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Dust Control | <input type="checkbox"/> De-icing (transport only - do not spread) |
| <input type="checkbox"/> Road Stabilization | |

[Signature] Secretary 7-24-11
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Figs AVP 6/30/11
Signature Title Date



FOX CONSTRUCTION, INC

3728 Langford Rd.

North Collins, NY 14111

Phone: 716-337-2548 Fax: 716-337-3280

Email: foxcon1@aol.com

WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: T/O Cherry Creek
Address: 6914 N. Main St Cherry Creek NY 14723
Phone: 716 296 5721 Fax _____

Road names and/or address of location where Brine will be spread:

- 1.) Dredge Ditch 6.) _____
- 2.) Havington 7.) _____
- 3.) Deermont 8.) _____
- 4.) Kent Street 9.) _____
- 5.) _____ 10. _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not be applied:** after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control
- Road Stabilization
- De-icing (transport only - do not spread)

Thom Welch H.W. Dept 7/21/11
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fox AVP 6/30/11
Signature Title Date



FOX CONSTRUCTION, INC

3728 Langford Rd.
North Collins, NY 14111

Phone: 716-337-2548 Fax: 716-337-3280

Email: foxcon1@aol.com

WASTE TRANSPORTER PERMIT NUMBER - 9A250.



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

X Facility: Z+M Ag and Turf
Address: 10838 Main Street N. Collins NY 14111
Phone: 716-337-2563 Fax: 337-2565

X Road names and /or address of location where Brine will be spread:

- | | |
|--------------------------------------|------|
| 1.) <u>10838 Main St. N. Collins</u> | 6.) |
| 2.) | 7.) |
| 3.) | 8.) |
| 4.) | 9.) |
| 5.) | 10.) |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Dust Control | <input type="checkbox"/> De-icing (transport only - do not spread) |
| <input type="checkbox"/> Road Stabilization | |

X William D. Henry Store Mgr. 7-22-11
Signature Title Date

FOX CONSTRUCTION, INC

Donald E. Fox

AVP

Signature Title Date

New York State Department of Environmental Conservation
Division of Materials Management
Bureau of Waste Reduction & Recycling, 9th Floor
625 Broadway, Albany, New York 12233-7253
Phone: (518) 402-8706 • **Fax:** (518) 402-9024
Website: www.dec.ny.gov



Joe Martens
Commissioner

MAY 30 2012

Mr. Donald Fox
Fox Construction
3728 Langford Rd.
North Collins, NY 14111

Dear Mr. Fox:

Re: **BUD Modification, Brine Bud # B032-11 – Dust Control and Road Stabilization**

Please find attached an updated Table A with the addition of the following approved locations for spreading of brine:

- Preivity's Auto Wrecking
- Frey Sand & Gravel
- United Materials/Sanborn Plant
- Town of New Albion
- Town of Otto
- Dale Smith/gravel/construction

The attached Table replaces the previous version attached to the Brine BUD #B032-11 approval dated July 28, 2011. All conditions of the BUD continue in force as stated therein. Please note the ten (10) applications per season condition for all sites.

In addition, a brine sample may be required in order to update the chemical analysis on file for 2012. I will be in contact for a convenient date and time.

My contact information is below; please do not hesitate to reply or call with any questions.

Sincerely,

Stephen Condon
Organic Recycling & Beneficial Use Section
Division of Materials Management
NYS Department of Environmental
Conservation
625 Broadway, 9th Floor
Albany, NY 12233-7253
(518) 402-8706
Fax 402-8681
scondon@gw.dec.state.ny.us

Fox Construction, Inc.- Brine BUD # B032-11, Transporter Permit # 9A-250

Table A

Approved NYS Brine Spreading Locations

May 25, 2012

Summit Gravel Products		East Concord	
Jellystone Park of WNY		North Java	14113
Russo Development Inc.		Springville	14141
Preischel Farms		Eden	14057
WD Henry & Sons		Eden	
Hannon Farms		Glenwood	14067
Little Valley Sand & Gravel		Little Valley	14755
Cattaraugus Co. Fairgrounds - racetrack		Little Valley	14755
Leon (T) Highway Dept.		Conewango Valley	
Price Trucking Corp		Buffalo	14220
American Wire Tie		North Collins	14111
Mc Ewan Trucking & Gravel/gravel pit		Springville	14141
Winter's Rigging		North Collins	14111
United Trucking LLC		N. Tonawanda	
Hauling Freight Lines		Angola	14006
Schreiber & Winkelman		Eden	14057
Erie County Ag. Society - racetrack		Hamburg	14075
Stefan Hay Company		North Collins	14111
Dayton (T)		South Dayton	14138
Draper Trucking LLC		Holland	14080
Charles Gerber		Eden	14057
Mammoser Farms		Eden	14057
Alloy Welding & Fabricating		Boston	14025
Cherry Creek (T)		Cherry Creek	14723
Z&M Ag and Turf		North Collins	14111
Previty's Auto Wrecking		Freedom	
Frey Sand & Gravel		Alexander	14005
United Materials/Sanborn Plant		Sanborn	14132
(T) New Albion		Cattaraugus	14719
(T) Otto		Otto	14766
Dale Smith/gravel/construction		Cattaraugus	14719



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Pravity's Auto Wrecking
 Address: 11075 Gabe Hal Rd. Freedom ny
 Phone: 716-492-3936 Fax 716-492-5978

Road names and /or address of location where Brine will be spread:

- | | |
|-----------------|------------|
| 1.) <u>Same</u> | 6.) _____ |
| 2.) _____ | 7.) _____ |
| 3.) _____ | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10.) _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. ~~Will not~~ be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only -- do not spread)
 Road Stabilization

Tom Krutzsch President 4-26-12
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fgo AVP 4/26/12
 Signature Title Date



FOX CONSTRUCTION, INC
3728 Langford Rd.
North Collins, NY 14111
Phone: 716-337-2546 Fax: 716-337-3280
Email: foxcon1@aol.com
WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Frey Sand + Gravel
Address: 3350 Dry Bridge Rd, Alexander, NY 14005
Phone: (585) 591-1515 Fax: (585) 591-1523

Road names and /or address of location where Brine will be spread:

- | | |
|--------------------------------------|------------|
| 1.) <u>On site yard + haul roads</u> | 6.) _____ |
| 2.) _____ | 7.) _____ |
| 3.) _____ | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10.) _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Dust Control | <input type="checkbox"/> De-icing (transport only - do not spread) |
| <input type="checkbox"/> Road Stabilization | |

James Prose Operations Mgr 4-19-12
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Jgo AVP 4/19/12
Signature Title Date



FOX CONSTRUCTION, INC
3728 Langford Rd.
North Collins, NY 14111
Phone: 716-337-2546 Fax: 716-337-3280
Email: foxcon1@aol.com
WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: United Materials - Sanborn Plant
Address: 2186 Cory Drive, Sanborn, NY 14132
Phone: (716) 213-5832 Fax (716) 213-5850

Road names and /or address of location where Brine will be spread:

- | | |
|----------------------------|------------|
| 1.) <u>Driveway + yard</u> | 6.) _____ |
| 2.) _____ | 7.) _____ |
| 3.) _____ | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10.) _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- | | |
|--|---|
| <input checked="" type="checkbox"/> Dust Control | <input type="checkbox"/> De-icing (transport only -- do not spread) |
| <input type="checkbox"/> Road Stabilization | |

<u>James Pierce</u>	<u>Operations Mgr</u>	<u>4-19-12</u>
Signature	Title	Date

FOX CONSTRUCTION, INC

<u>Donald E Fgo</u>	<u>AVP</u>	<u>4/19/12</u>
Signature	Title	Date



FOX CONSTRUCTION, INC
3728 Langford Rd.
North Collins, NY 14111
Phone: 716-337-2546 Fax: 716-337-3280
Email: foxcon1@aol.com
WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road sprcad gas and oil well and LPG storage well brine.

Facility: TOWN OF NEW ALBION
Address: 14 MAIN ST., CATTARAUGUS, NY 14719
Phone: 257-3331 Fax 257-3270

Road names and /or address of location where Brine will be spread:

- | | |
|------------------------------|--------------------------|
| 1) <u>TUG HILL RD.</u> | 6) <u>ZWIGERSOHL RD.</u> |
| 2) <u>SKINNER KOLLOW RD.</u> | 7) <u>MAPLE HILL RD.</u> |
| 3) <u>PETERS RD.</u> | 8) <u>SMITH HILL RD.</u> |
| 4) <u>PEPPERDINE HILL</u> | 9) <u>MAPLE HILL RD.</u> |
| 5) <u>STATE LENO RD.</u> | 10. _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Dust Control | <input type="checkbox"/> De-icing (transport only - do not spread) |
| <input type="checkbox"/> Road Stabilization | |

Jerry Cole Highway Supt. 3-22-12
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fgo AVP 3/22/12
Signature Title Date



FOX CONSTRUCTION, INC

3728 Langford Rd.

North Collins, NY 14111

Phone: 716-337-2546 Fax: 716-337-3280

Email: foxcon1@aol.com

WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Dale Smith
Address: 8140 RT. 353 CATH. NY 14719
Phone: 716-257-5129 Fax 716-257-5129

Road names and /or address of location where Brine will be spread:

- 1.) 8140 RT. 353 Catterung 6.) _____
- 2.) _____ 7.) _____
- 3.) _____ 8.) _____
- 4.) _____ 9.) _____
- 5.) _____ 10.) _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control
- De-icing (transport only – do not spread)
- Road Stabilization

Dale R Smith Owner 10-10-11
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fox AVP 10-10-11
Signature Title Date

Stephen Condon - Brine BUD #B032-11 - revised Table A

From: Stephen Condon
To: Aversa, Jack; Leonardo, Patti; Prather, Kathleen; Sally Rowland; fox...
Date: 9/19/2011 2:13 PM
Subject: Brine BUD #B032-11 - revised Table A
Attachments: fox_table_a.pdf

To: Mr. Donald Fox, Fox Construction

Don:
Please find attached an updated Table A with the addition of the following sites:

North Collins (T) Highway Dept.

Richard Hall (Poverty Farms)

as approved locations for spreading of brine. The attached Table replaces the previous Table A attached to the Brine BUD #B032-11 approval dated July 28, 2011. All conditions of the BUD continue in force as stated therein.

My contact information is below; please do not hesitate to reply or call with any questions.

Sincerely,

Steve

Stephen Condon
Organic Recycling & Beneficial Use Section
Division of Materials Management
NYS Department of Environmental Conservation
625 Broadway, 9th Floor
Albany, NY 12233-7253
(518) 402-8706
Fax 402-8681
sccondon@gw.dec.state.ny.us

Fox Construction, Inc.- Brine BUD # B032-11, Transporter Permit # 9A-250

Table A
 Approved NYS Brine Spreading Locations
 July 28, 2011 (Revised September 19, 2011)

Summit Gravel Products		East Concord	
Jellystone Park of WNY		North Java	14113
Russo Development Inc.		Springville	14141
Preischel Farms		Eden	14057
WD Henry & Sons		Eden	
Hannon Farms		Glenwood	14067
Little Valley Sand & Gravel		Little Valley	14755
Cattaraugus Co. Fairgrounds - racetrack		Little Valley	14755
Leon (T) Highway Dept.		Conewango Valley	
Price Trucking Corp		Buffalo	14220
American Wire Tie		North Collins	14111
Mc Ewan Trucking & Gravel/gravel pit		Springville	14141
Winter's Rigging		North Collins	14111
United Trucking LLC		N. Tonawanda	
Hauling Freight Lines		Angola	14006
Schreiber & Winkelman		Eden	14057
Erie County Ag. Society - racetrack		Hamburg	14075
Stefan Hay Company		North Collins	14111
Dayton (T)		South Dayton	14138
Draper Trucking LLC		Holland	14080
Charles Gerber		Eden	14057
Mammoser Farms		Eden	14057
Alloy Welding & Fabricating		Boston	14025
Cherry Creek (T)		Cherry Creek	14723
Z&M Ag and Turf		North Collins	14111
North Collins (T) Highway Dept.		North Collins	14111
Richard Hall (Poverty Farms)		Eden	14057



FOX CONSTRUCTION, INC

3728 Langford Rd.

North Collins, NY 14111

Phone: 716-337-2546 Fax: 716-337-3280.

Email: foxcon1@aol.com

WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: T/O N-COLLINS Hwy BARN
Address: 2982 SNIRLEY RD
Phone: 716 863-4008 Fax 716-337-3967

Road names and /or address of location where Brine will be spread:

- | | |
|-------------------|--------------------------------|
| 1.) <u>KALSER</u> | 6.) _____ |
| 2.) <u>WAGNER</u> | 7.) _____ |
| 3.) <u>LENOX</u> | 8.) <u>ALL DIRT ROADS</u> |
| 4.) <u>LUTHER</u> | 9.) _____ |
| 5.) _____ | 10.) <u>& PARKING LOTS</u> |

BUD

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Dust Control | <input type="checkbox"/> De-icing (transport only - do not spread) |
| <input checked="" type="checkbox"/> Road Stabilization | |

[Signature] Hwy SUPT 9-8-11
Signature Title Date

FOX CONSTRUCTION, INC.

[Signature] AVP 9/8/11
Signature Title Date



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax: 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: RICHARD L. HALL - POVERTY FARMS
 Address: 1247 EDEN EVANS RD EDEN NY 14057
 Phone: 913 934 Fax: _____

CELL

Road names and /or address of location where Brine will be spread:

- 1.) ABOVE 6.) _____
- 2.) _____ 7.) _____
- 3.) _____ 8.) _____
- 4.) _____ 9.) _____
- 5.) _____ 10.) _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not be applied:** after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only - do not spread)
- Road Stabilization

x [Signature] owner 7/30/11
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fox AVP 7/30/11
 Signature Title Date

FAX COVER SHEET

FOX CONSTRUCTION, INC.
3728 Langford Rd
North Collin, NY 14111

Phone number 716-337-2546
Fax number 716-337-3280

SEND TO		FROM	
Company name <i>NUP DEC</i>		<i>Fox Construction Inc</i>	
Attention <i>Stephen Condon</i>		Date <i>8/11/11</i>	
Office location		Office location	
Fax number <i>1 518 402 9577</i>		Phone number	

Urgent
 Reply ASAP
 Please comment
 Please review
 For your information

Total pages, including cover: 2

Mr Condon,

Attached - 1 additional

BUD. Retention.

For approval

Thank you.

ML

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

JUL 28 2011

Mr. Donald Fox
Fox Construction
3728 Langford Rd.
North Collins, NY 14111

Dear Mr. Fox:

Re: **Brine Bud # B032-11 Dust Suppression and Road Stabilization
Transporter Permit # 9A-250**

We have reviewed the information submitted in your July 7, 2011 petition for the proposed beneficial use of brine from various Medina and Theresa formation gas wells in Erie, Cattaraugus and Chautauqua Counties as part of your dust control and road stabilization system. This road spreading use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- All vehicles transporting and spreading brine must have a valid Part 364 permit.
- Brine is approved for use in the Towns and locations listed on Table A (enclosed). Additional locations can be added upon written request to the above address.
- Brine must be applied by use of a spreader bar or similar device with shut-off controls in the cab of the truck; and with vehicular equipment that is dedicated to this use or cleaned of previously transported waste materials prior to this use.
- Dust control and road stabilization activities must be conducted in accordance with procedures described in your BUD petition. No brine can be used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water.
- Brine must not be applied on sections of road having a grade exceeding 10 percent.
- Brine may be applied a maximum of ten times on any section of road, drive, traffic area or racetrack during a season. Please contact this office should the need arise to increase the application frequency.

You must keep a copy of this letter and the Part 364 permit in all vehicles transporting brine to your facility. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,



FOR

Sally Rowland, Ph.D., P.E.
Organic Recycling & Beneficial Use Section
Bureau of Waste Reduction & Recycling
Division of Materials Management

Enclosure

Fox Construction, Inc.- Brine BUD # B032-11, Transporter Permit # 9A-250

Table A
 Approved NYS Brine Spreading Locations
 July 28, 2011

Summit Gravel Products		East Concord	
Jellystone Park of WNY		North Java	14113
Russo Development Inc.		Springville	14141
Preischel Farms		Eden	14057
WD Henry & Sons		Eden	
Hannon Farms		Glenwood	14067
Little Valley Sand & Gravel		Little Valley	14755
Cattaraugus Co. Fairgrounds - racetrack		Little Valley	14755
Leon (T) Highway Dept.		Conewango Valley	
Price Trucking Corp		Buffalo	14220
American Wire Tie		North Collins	14111
Mc Ewan Trucking & Gravel/gravel pit		Springville	14141
Winter's Rigging		North Collins	14111
United Trucking LLC		N. Tonawanda	
Hauling Freight Lines		Angola	14006
Schreiber & Winkelman		Eden	14057
Erie County Ag. Society - racetrack		Hamburg	14075
Stefan Hay Company		North Collins	14111
Dayton (T)		South Dayton	14138
Draper Trucking LLC		Holland	14080

- 10.1.1 310321
27-28

FOX CONSTRUCTION, INC
3728 Langford Rd.
North Collins, NY 14111
Phone.337-2546
Fax 337-3280
Email foxcon1@aol.com



July 7, 2011

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Technical Support, 11th Floor
625 Broadway
Albany , NY 12233 - 7020

Attn: Mr. Stephen Condon

Brine that is spread by Fox Construction, Inc. is picked up from Gas Wells in the Medina and Theresa formations located in Erie, Cattaraugus and Chautauqua Counties.

We have previously submitted an analysis of Brine from the Emerling Well which is representative of the area we operate in.

We are not involved with handling any Brine from LPG storage wells.

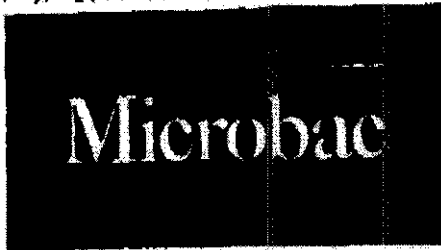
No Brine will be spread from the Marcellus formation wells at this time.

Thank you,

Donald E Fox
Donald E. Fox (AVP)
Fox Construction, Inc.

Feb. 9, 2011 11:08AM

Page 1 of 3



Microbac Laboratories, Inc.

ERIE DIVISION
 1962 WAGER ROAD
 ERIE, PA 16509
 (814) 825-8533 FAX (814) 825-9254
 CHERI BROLASKI, LABORATORY DIRECTOR
<http://www.microbac.com> E-Mail: erie@microbac.com

STATE CERT ID.
 25-067, 10121
 C-PA-05

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS
 WATER · AIR · WASTES · FOOD · PHARMACEUTICALS · NUTRACEUTICALS

CERTIFICATE OF ANALYSIS

LAM ASSOCIATES
 MR. LAWRENCE A. MATHEWS
 27 SQUIRE DRIVE
 ORCHARD PARK, NY 14127

Date Reported 1/29/2010
 Date Received 1/18/2010
 Order Number 1001-03027
 Invoice No. 4248
 Cust # 012238
 Sampler Customer

Permit No.
 Cust P.O. CREDIT CARD ON FILE

SUBJECT: EMERLING #1 BRINE WATER

TEST	METHOD	RESULT	UNITS	ANALYSIS DATE	TIME	TECH	ACCRED.
EMERLING #1 BRINE							
Date Sampled: 1/13/2010				Time Sampled: 12:00 pm			
% By Wgt Salts In Brine				1/28/2010	14:44	MWR	
Calcium		36,200	mg/L	1/28/2010	14:44	MWR	
Chloride	SM 4500-Cl-E (Discrete)	193000	mg/L	1/22/2010	14:48	CAP	
Potassium		7120	mg/L	1/28/2010	14:44	MWR	
Magnesium		3860	mg/L	1/28/2010	14:44	MWR	
Sodium		74,400	mg/L	1/28/2010	14:44	MWR	
Specific Gravity		1.220		1/28/2010	14:44	MWR	
Calcium Chloride		8.21	% BY WGT.	1/28/2010	14:44	MWR	
Sodium Chloride		15.45	% BY WGT.	1/28/2010	14:44	MWR	
Potassium Chloride		1.11	% by wgt.	1/28/2010	14:44	MWR	
Magnesium Chloride		1.24	% by wgt.	1/28/2010	14:44	MWR	
Total Chlorides		26.01	% BY WGT.	1/28/2010	14:44	MWR	
Calcium Chloride		0.836	lbs / gal	1/28/2010	14:44	MWR	
Sodium Chloride		1.573	lbs / gal	1/28/2010	14:44	MWR	
Potassium Chloride		0.113	lbs / gal	1/28/2010	14:44	MWR	
Magnesium Chloride		0.126	lbs / gal	1/28/2010	14:44	MWR	
Total Chlorides		2.648	lbs / gal	1/28/2010	14:44	MWR	
Weight Of 1 Gallon Of Brine		10.18	LBS/GAL	1/28/2010	14:44	MWR	
Metals By ICP	EPA 200.7			1/26/2010	15:00	MWR	
Cadmium	EPA 200.7	<0.050	mg/L	1/26/2010	15:00	MWR	☞
Chromium	EPA 200.7	<0.100	mg/L	1/26/2010	15:00	MWR	☞
Copper	EPA 200.7	<0.100	mg/L	1/26/2010	15:00	MWR	☞
Iron	EPA 200.7	140	mg/L	1/26/2010	15:00	MWR	☞
Lead	EPA 200.7	<0.100	mg/L	1/26/2010	15:00	MWR	☞
Nickel	EPA 200.7	<0.100	mg/L	1/26/2010	15:00	MWR	☞
Silver	EPA 200.7	<0.100	mg/L	1/26/2010	15:00	MWR	☞
Zinc	EPA 200.7	0.248	mg/L	1/26/2010	15:00	MWR	☞
Berium	EPA 200.7	490	mg/L	1/22/2010	16:06	MWR	☞
Cyanide, Total	EPA 335.4(DISCRETE)	<0.05	mg/L	1/20/2010	9:47	BJJ	☞
Phenolics, Total	EPA 420.2/420.4	0.006	mg/L	1/24/2010		OST	☞
pH -Exceeds 15Min Hold Time	SM 4500-H+ B	5.2	Units	1/20/2010	16:00	DS	☞
Solids, Dissolved	SM 2540 C	354000	mg/L	1/21/2010	14:00	DS	☞
Oil & Grease	EPA 1664A	<6	mg/L	1/19/2010	7:00	CAP	☞

The data and information on this and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced, copied or in part for advertising or other purposes without approval from the laboratory.
 USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analysis and Research
 NGLAP accredited by PA, NY. Visit our website to view our current NELAP accreditation for



FAX COVER SHEET

FOX CONSTRUCTION, INC.
3728 Langford Rd
North Collin, NY 14111

Phone number 716-337-2546
Fax number 716-337-8280

SEND TO Company name NYS DEC	From Fox Construction, Inc.
Attention Stephen Condon	Date 7/8/11
Office location	Office location
Fax number 1-518-402-9577	Phone number

- Urgent
 Reply ASAP
 Please comment
 Please review
 For your information

Total pages, including cover: 11

Mr. Condon,
Attached please find a portion of our BUD Petitions. We will forward the balance as our customers return them.

Does this petition eliminate the need to submit Part C + Part D of the Waste Transporter Permit App. which is used to add and/or delete facilities?

Thank you,
Diana Smith
Eot Construction



FOX CONSTRUCTION, INC
3728 Langford Rd.
North Collins, NY 14111
Phone: 716-337-2546 Fax: 716-337-3280
Email: foxcon1@aol.com
WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: TOWN OF LEON HIGHWAY DEPT.
Address: 12195 NEW ABBION RD
Phone: 716 296 5507 Fax: 716 296 5429

Road names and /or address of location where Brine will be spread:

- | | |
|------------------------|-----------------------------|
| 1.) <u>Kellogg Rd</u> | 6.) <u>Alderbon Hall Rd</u> |
| 2.) <u>West Rd</u> | 7.) <u>Stew Rd</u> |
| 3.) <u>Youngs Rd</u> | 8.) <u>Jewell Rd</u> |
| 4.) <u>Townhill Rd</u> | 9.) <u>Kusse Rd</u> |
| 5.) <u>Eldridge Rd</u> | 10. <u>Duway Rd</u> |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Dust Control | <input type="checkbox"/> De-icing (transport only - do not spread) |
| <input checked="" type="checkbox"/> Road Stabilization | |

Michael E. Becker Highway Supt. 7/7/11
Signature Title Date

FOX CONSTRUCTION, INC.

Donald S. [Signature] AVP 6/30/11
Signature Title Date



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: PRICE TRUCKING CORP
 Address: 67 BEACON ST BUFFALO, NY 14200
 Phone: 716 8221414 Fax 716 82265920

Road names and /or address of location where Brine will be spread:

- | | |
|-------------------------|------------|
| 1.) <u>67 BEACON ST</u> | 6.) _____ |
| 2.) <u>250 LAKE AVE</u> | 7.) _____ |
| 3.) _____ | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10.) _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only – do not spread)
 Road Stabilization

Tan Price Pres 7/5/11
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fox AVP 6/30/11
 Signature Title Date



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax: 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: American Wire Tie, Inc
 Address: 2073 Franklin St North Collins 14111
 Phone: 337-2412 Fax 337 3728

Road names and /or address of location where Brine will be spread:

- | | |
|-------------------------------------|------------|
| 1.) <u>Driveway @ above address</u> | 7.) _____ |
| 2.) _____ | 8.) _____ |
| 3.) _____ | 9.) _____ |
| 4.) _____ | 10.) _____ |
| 5.) _____ | |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only – do not spread)
 Road Stabilization

[Signature] Pres. 7-5-11
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Figs AVP 6/30/11
 Signature Title Date



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax: 716-337-3280
 Email: foxcon1@aol.com
WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: McEwan Tkg & Gravel Prod. Inc - Gravel Pit
 Address: 12370 Sharp St. Springville NY 14141
 Phone: 716 609-1824 Fax: 716 592-7674

Road names and /or address of location where Brine will be spread:

- 1.) Pit driveway at site 6.) _____
- 2.) _____ 7.) _____
- 3.) _____ 8.) _____
- 4.) _____ 9.) _____
- 5.) _____ 10.) _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only - do not spread)
- Road Stabilization

Mary McEwan Pres 7/7/11
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fog AVP 6/30/11
 Signature Title Date



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax: 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Winters Riggery
 Address: 2110 Rt 249, North Collins, NY
 Phone: 716-337-3840 Fax _____

Road names and /or address of location where Brine will be spread:

- 1.) 2110 RT 249 North Collins 6.)
- 2.) 11357 Governor Stettin Road, North Collins
- 3.) 2066 Langford Rd North Collins 8.)
- 4.) _____ 9.) _____
- 5.) _____ 10.) _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only – do not spread)
 Road Stabilization

J. Hunt Pres of WRI 7-8-2011
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fgo AVP 6/30/11
 Signature Title Date



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2548 Fax: 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: United Materials, LLC

Address: 3949 Forest Parkway, Suite 400, N. Tonawanda, NY 14120

Phone: (716) 213-5832 Fax (716) 213-5850

Road names and /or address of location where Brine will be spread:

1.) 100 Bank Street, Orchard Park NY 6.)

2.) 54 Bank St., Orchard Park, NY 7.)

3.) 561 Pavement Rd, Lancaster, NY 8.)

4.) 9.)

5.) 10.

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

Dust Control
 Road Stabilization

De-icing (transport only – do not spread)

James Pierce
 Signature

Operations Manager
 Title

7/7/11
 Date

FOX CONSTRUCTION, INC

Donald E Fox

AVP

6/30/11

Signature

Title

Date



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax: 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Hauling Freight Lines Inc
 Address: 8588 Eric Rd Angola, NY 14006
 Phone: 716-549-1213 Fax 716-549-1123

Road names and /or address of location where Brine will be spread:

- | | |
|-----------|------------|
| 1.) _____ | 6.) _____ |
| 2.) _____ | 7.) _____ |
| 3.) _____ | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10.) _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only - do not spread)
 Road Stabilization

Hauling Freight Lines Inc Andromeda J.P. VP 7-5-11
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fgo AVP 6/30/11
 Signature Title Date



FOX CONSTRUCTION, INC
3728 Langford Rd.
North Collins, NY 14111
Phone: 716-337-2546 Fax: 716-337-3280
Email: foxcon1@aol.com
WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: WD Henry & Sons Inc.
Address: 7189 Gowanda State Rd, Eden, NY 14057
Phone: 716-648-4673 Fax 716-648-1828

Road names and /or address of location where Brine will be spread:

- 1.) 7189 Gowanda State Rd, Eden, NY
- 2.) 7301 Gowanda State Rd, Eden, NY
- 3.) 7357 Gowanda State Rd, Eden, NY
- 4.) 7369 Gowanda State Rd, Eden, NY
- 5.) 7396 Gowanda State Rd, Eden, NY
- 6.) 3270 Webster Rd, Eden, NY
- 7.) 7086 Gowanda State Rd, Hamburg, NY
- 8.) 3274 Webster Rd, Eden, NY
- 9.) 3221 Webster Rd, Eden, NY
- 10. _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control
- Road Stabilization
- De-icing (transport only - do not spread)

Mark C Henry Pres 7/6/2011
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Figo AVP 6/30/11
Signature Title Date



FOX CONSTRUCTION, INC
3728 Langford Rd.
North Collins, NY 14111
Phone: 716-337-2548 Fax 716-337-3280
Email: foxcon1@aol.com
WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: SCHREIBER & WINKELMAN INC.
Address: 4240 SCHREIBER DR. FRED, NY 14057
Phone: (716) 992-4332 Fax: (716) 992-4345

Road names and /or address of location where Brine will be spread:

- 1.) SAME AS ABOVE 6.) _____
- 2.) _____ 7.) _____
- 3.) _____ 8.) _____
- 4.) _____ 9.) _____
- 5.) _____ 10. _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only - do not spread)
- Road Stabilization

[Signature] Title [Initials] Date 7-5-11

FOX CONSTRUCTION, INC

Donald E Fox AVP Date 6/30/11
Signature Title Date



FOX CONSTRUCTION, INC

3728 Langford Rd.
North Collins, NY 14111
Phone: 716-337-2546 Fax: 716-337-3280
Email: foxcon1@aol.com



WASTE TRANSPORTER PERMIT NUMBER - 9A250

N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

county fair only

Facility: ERIE COUNTY AGRICULTURAL SOCIETY
Address: 5600 MCKINLEY PARKWAY HAMBURG NY 14075
Phone: 716-649-3900 Fax 716-649-4687

Road names and /or address of location where Brine will be spread:

- | | |
|---------------------------------------|------------|
| 1.) <u>TRAILER PARK</u> | 6.) _____ |
| 2.) <u>HOUSE BARN</u> | 7.) _____ |
| 3.) <u>RACKETBALL & CROSSOVER</u> | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10.) _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Dust Control | <input type="checkbox"/> De-icing (transport only – do not spread) |
| <input type="checkbox"/> Road Stabilization | |

<u><i>Donald E. Jago</i></u>	<u>CEO</u>	<u>7/6/11</u>
Signature	Title	Date

FOX CONSTRUCTION, INC

<u><i>Donald E. Jago</i></u>	<u>AVP</u>	<u>6/30/11</u>
Signature	Title	Date



FOX CONSTRUCTION, INC

3728 Langford Rd.

North Collins, NY 14111

Phone: 716-337-2546 Fax: 716-337-3280

Email: foxcon1@aol.com

WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Town of Dayton
Address: 9100 Rt 62 S. Dayton NY 14138
Phone: 532-5139 Fax 716-532-

Road names and /or address of location where Brine will be spread:

- | | |
|---------------------|-----------|
| 1.) _____ | 6.) _____ |
| 2.) _____ | 7.) _____ |
| 3.) <u>on paper</u> | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10. _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- | | |
|--|--|
| <input type="checkbox"/> Dust Control | <input type="checkbox"/> De-icing (transport only - do not spread) |
| <input checked="" type="checkbox"/> Road Stabilization | |

[Signature] Highway Superintendent 7/11/11
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Figo AVP 6/30/11
Signature Title Date

Road Name
Dredge
Oaks <i>Fog valley</i>
Rice
██████████
██████████
██████████
Cottage-Nashville
Mosher
Hooker Hill
Cottage-Peck Hill
██████████
Dole Street
Bentley
School Street-Markham
Wolfe
██████████
██████████
Persia
VanEtten
Scott
Cabic
Gabel Street
Coon
School Street-Dayton
Allen Street
James
Jolls

Road Name
Maltbie
Townline
Bridge Street
Church Street
Railroad Ave
First Street
Second Street
Park Street
██████████
<i>EARL HILL</i>
<i>42ND ST</i>
<i>KEWLEY</i>



FOX CONSTRUCTION, INC

3728 Langford Rd.

North Collins, NY 14111

Phone: 716-337-2546 Fax: 716-337-3280

Email: foxcon1@aol.com



WASTE TRANSPORTER PERMIT NUMBER - 9A250

N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Stefan Hay Company

Address: 10333 Jennings Rd., North Collins, NY 14111

Phone: 716-432-2715 Fax 716-337-3442

Road names and /or address of location where Brine will be spread:

- 1.) Driveway of address 6.) _____
- 2.) above 7.) _____
- 3.) _____ 8.) _____
- 4.) _____ 9.) _____
- 5.) _____ 10.) _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not be applied:** after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only -- do not spread)
- Road Stabilization

Michael J. Sofen Owner 7/11/11
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E. Fgo AVP 6/30/11
 Signature Title Date



FOX CONSTRUCTION, INC

3728 Langford Rd.

North Collins, NY 14111

Phone: 716-337-2546 Fax: 716-337-3280

Email: foxcon1@aol.com



WASTE TRANSPORTER PERMIT NUMBER - 9A250

N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Draper Trucking LLC
Address: 400 N Main St. Box 100 Holland, N.Y. 14080
Phone: 716-537-2275 Fax 716-537-2844

Road names and /or address of location where Brine will be spread:

- 1.) 400 N Main St. Holland, NY 6.) _____
- 2.) _____ 7.) _____
- 3.) _____ 8.) _____
- 4.) _____ 9.) _____
- 5.) _____ 10.) _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only -- do not spread)
- Road Stabilization

[Signature] [Signature] 7/12/11
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Feg AVP 6/30/11
Signature Title Date

faxed 7/13/11 3:55 PM

FAX COVER SHEET

FOX CONSTRUCTION, INC.
3728 Langford Rd
North Colln, NY 14111

Phone number 716-337-2546
Fax number 716-337-8280

SEND TO Company name NY5 DEC	From Fox Construction, Inc.
Attention Stephen Condon	Date 7/13/11
Office location	Office location
Fax number 1-518-402-9577	Phone number

Urgent
 Reply ASAP
 Please document
 Please review
 For your information

Total pages, including cover: ~~##~~
4

Mr. Condon,
 Attached please find a portion of our BUD Petitions. We will forward the balance as our customers return them.

Does the petition eliminate the need to submit Part C + Part D of the Waste Transporter Permit App. which we used to add and/or delete facilities?

Thank you,
 Diana Smith
 Fox Construction

faxed 7/15/11 3:53 PM
" 7/13/11
7/15/11 1:30 PM
FAX COVER SHEET

FOX CONSTRUCTION, INC.
3728 Langford Rd
North Collin, NY 14111

Phone number 716-337-2546
Fax number 716-337-3280

SEND TO Company name NYS DEC	From Fox Construction, Inc.
Attention Stephen Condon	Date 7/15/11
Office location	Office location
Fax number 1-518-402-9577	Phone number

Urgent Reply ASAP Please comment Please review For your information

Total pages, including cover:

~~##~~

0

Mr. Condon,

Attached please find a portion of our BUD Petitions. We will forward the balance as our customers return them.

Does this petition eliminate the need to submit Part C + Part D of the Waste Transporter Permit App. which we used to add and/or delete facilities?

Thank you,
Alicia Smith
Sot Construction

7/13



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax: 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Summit Gravel Products
 Address: 9340 Sibley Rd., East Concord NY
 Phone: 716-592-9337 Fax: 716-592-9373

Road names and /or address of location where Brine will be spread:

- | | |
|----------------------------|------------|
| 1.) <u>(Same as above)</u> | 6.) _____ |
| 2.) _____ | 7.) _____ |
| 3.) _____ | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10.) _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only - do not spread)
 Road Stabilization

[Signature] President 7/12/11
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fox AVP 6/30/11
 Signature Title Date



FOX CONSTRUCTION, INC

3728 Langford Rd.

North Collins, NY 14111

Phone: 716-337-2546 Fax: 716-337-3280

Email: foxcon1@aol.com

WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Jellystone Park of Western New York
Address: 5204 Youngers Rd. North Tonawanda, NY 14113
Phone: 585 457-9644 Fax 716 608-1470

Road names and /or address of location where Brine will be spread:

- | | |
|---------------------------------------|------------|
| 1.) <u>All interior roads of Park</u> | 6.) _____ |
| 2.) _____ | 7.) _____ |
| 3.) _____ | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10.) _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only - do not spread)
 Road Stabilization

[Signature] President 7/12/11
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Jago AVP 6/30/11
Signature Title Date



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Russo Development Inc.
 Address: 535 West main St., Springville NY 14141
 Phone: 716-592-9327 Fax 716-592-9373

Road names and /or address of location where Brine will be spread:

- 1.) (same as above) 6.) _____
- 2.) _____ 7.) _____
- 3.) _____ 8.) _____
- 4.) _____ 9.) _____
- 5.) _____ 10.) _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control
- Road Stabilization
- De-icing (transport only – do not spread)

[Signature] president 7/12/2011
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fox AVP 6/30/11
 Signature Title Date



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax: 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1:15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Tony + Tom PREISCHEL FARMS
 Address: 2988 BELKNAP RD EDEN NY 14057
 Phone: 992-4301 Fax _____

Road names and /or address of location where Brine will be spread:

- 1.) FARM ROADS Belknap Rd 6.
- 2.) _____ 7.) _____
- 3.) _____ 8.) _____
- 4.) _____ 9.) _____
- 5.) _____ 10.) _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only - do not spread)
 Road Stabilization

[Signature] V.P. 7-14-11
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fgo AVP 6/30/11
 Signature Title Date



FOX CONSTRUCTION, INC

3728 Langford Rd.
North Collins, NY 14111
Phone: 716-337-2546 Fax: 716-337-3280
Email: foxcon1@aol.com



WASTE TRANSPORTER PERMIT NUMBER - 9A250

N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Hannon Farms
Address: 10819 Pratham Rd. Genesee NY 14069
Phone: 592-2296 Fax: 592-1486

Road names and /or address of location where Brine will be spread:

- | | |
|------------------------------|------------|
| 1.) <u>10819 Pratham Rd.</u> | 6.) _____ |
| 2.) _____ | 7.) _____ |
| 3.) _____ | 8.) _____ |
| 4.) _____ | 9.) _____ |
| 5.) _____ | 10.) _____ |

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. Will not be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Dust Control | <input type="checkbox"/> De-icing (transport only - do not spread) |
| <input type="checkbox"/> Road Stabilization | |

Michael J Hannon owner 7/9/11
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Figo AVP 7/8/11
Signature Title Date



FOX CONSTRUCTION, INC
3728 Langford Rd.
North Collins, NY 14111
Phone: 716-337-2546 Fax: 716-337-3280
Email: foxcon1@aol.com
WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Little Valley Sand & Gravel
Address: 8998 New Albion Rd. Little Valley, NY
Phone: 716 938 6676 Fax: 716 938 6966 14785

Road names and /or address of location where Brine will be spread:

- 1.) Private Rd. Ricker (Pit 7)
- 2.) Little Valley Sand & Gravel (8)
- 3.) 8998 New Albion Rd. (9)
- 4.) _____
- 5.) _____
- 6.) _____
- 7.) _____
- 8.) _____
- 9.) _____
- 10.) _____

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control
- Road Stabilization
- De-icing (transport only -- do not spread)

Mary Chaidoworth Secretary July 11-11
Signature Title Date

FOX CONSTRUCTION, INC

Donald E Fox AVP 6/30/11
Signature Title Date



FOX CONSTRUCTION, INC
 3728 Langford Rd.
 North Collins, NY 14111
 Phone: 716-337-2546 Fax: 716-337-3280
 Email: foxcon1@aol.com
 WASTE TRANSPORTER PERMIT NUMBER - 9A250



N.Y.S. Department of Environmental Conservation Beneficial Use Determination (BUD) petition in compliance with reg. 360.1.15(d) to road spread gas and oil well and LPG storage well brine.

Facility: Cattaraugus County Fairgrounds
 Address: 501 Erie St, Little Valley, NY 14755
 Phone: 716 938 9146 Fax: 716 938 6148

Road names and /or address of location where Brine will be spread:

- 1.) Race track within the 6.)
- 2.) fairgrounds 7.)
- 3.) 8.)
- 4.) 9.)
- 5.) 10.

Description of application: To be applied by 4000 gal. Vacuum Water Tank Truck with spreader plate and air controls in cab to control flow. Brine spread for the purpose of dust control and road stabilization. **Will not** be applied: after daylight hours; within 50 ft. of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent.

Restricted Applications: Check specific use.

- Dust Control De-icing (transport only – do not spread)
 Road Stabilization

K Charlesuth Treasurer 7/14/11
 Signature Title Date

FOX CONSTRUCTION, INC

Donald E Jeps AVP 6/30/11
 Signature Title Date

New York State Department of Environmental Conservation

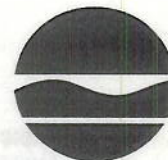
Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

AUG 1 2011

Mr. David Lunden, Landman
Dallas-Morris Drilling, Inc.
Morris and Sons, Inc.
29 Morris Lane
Bradford, PA, 16701

Dear Mr. Lunden:

Re: Brine Bud # B033-11 Dust Suppression and Road Stabilization
Transporter Permit # PA-445 (Morris and Sons, Inc.)


We have reviewed the information submitted in your July 18, 2011 petition for the proposed beneficial use of brine generated from wells and stored on adjacent properties in the Town of Carrollton, New York as shown on submitted maps and diagrams. The brine will be spread on roads on the submitted properties as part of your dust control and road stabilization system by Morris and Sons Inc. vehicles and will not be transported off the properties. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Dust control and road stabilization activities must be conducted in accordance with procedures described in your BUD petition. No brine can be used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water.
- Brine must not be applied on sections of road having a grade exceeding 10 percent.
- Brine is approved for road spreading only on the described roads on properties in the Town of Carrollton as shown in the beneficial use request.
- Brine may be applied a maximum of ten times on any single section of road, drive or traffic area during a season. Please contact this office should the need arise to increase the application frequency.

You must keep a copy of this letter and the Part 364 permit in all vehicles spreading brine at your facility. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 or scondon@gw.dec.state.ny.us if you have any questions or need any additional information.

Sincerely,



Sally Rowland, Ph.D., P.E.
Organic Recycling & Beneficial Use Section
Bureau of Waste Reduction & Recycling
Division of Materials Management



Head Office: 103 South Kendall Avenue
Bradford, PA 16701
Tel: (814) 362-6493
Fax: (814) 368-7086

Exploration Office: 168 Wolfe Run Road
Freedom, PA 15042
Tel: (814) 598-3765
Fax: (866) 474-3575

RECEIVED

JUL 18 2011

Beneficial Use Determination Request

BUREAU OF WASTE
REDUCTION AND RECYCLING
DIVISION OF SOLID AND
HAZARDOUS MATERIALS

To the Attention of:

Kathleen A. Prather, P.E.
Organic Recycling & Beneficial Use Section
Division of Materials Management
NYS Department of Environmental Conservation
625 Broadway, 9th Floor
Albany, NY 12233-7253
(518) 402-8706
Fax 402-8681
kaprathe@gw.dec.state.ny.us

Dallas Energy, LLC is seeking a beneficial use determination (BUD) to spread produced brine water from their oil and gas wells on the unpaved roadways throughout their leased property for the purpose of roadbed stabilization and dust control.

1) Applicant: Dallas Energy, LLC, 103 S. Kendall Ave., Bradford, PA., 16701
Contact: David Lunden, Landman (814) 598-0626

2) The property consists of approximately 49.7 acres on two parcels, and belongs to Thomas J. Morris Sr. A Cattaraugus County tax map is attached to show the property location. Thomas Morris Sr. has also given permission to spread the brine water as indicated in the attached letter. The full property identification numbers are:

Tax Map Number(s):	110.001-1-3	110.022-1-2
County:	Cattaraugus	Cattaraugus
Town:	Carrollton	Carrollton
Assessed Acres:	40.9	8.8

3) The brine water is presently separated from the pumped oil in a series of steel storage tanks. There are two sets of storage tanks that will supply the brine water, both collecting oil and brine water from oil wells surrounding the tanks. The brine water is stored in a dedicated steel tank at both locations. Brine water is removed from the tank through hose connections that connect to a tanker truck when the necessary.

4) The two oil collection tank locations, including the brine storage tanks, have the respective physical addresses of 305 and 371 Parkside Drive, Limestone, NY, 14735.

5) The chemical analysis for the brine water is attached as two separate reports. Microbac Laboratories performed an analysis in December, 2008, and Environmental Service Laboratories, Inc. performed additional analysis in June, 2011.

6) The application plan for spreading the brine is as follows:

A) A water tank transport truck (NY waste transporter permit #PA AF53444 or #PA AF54402) will spread the brine water using a water spreader bar attached to the rear of the truck. The flow will be controlled from the cab of the vehicle.

B) The brine will be applied whenever the road surface is dry enough to absorb the application. The application rate will depend on the water absorption and evaporation rate. The application rate will not be heavy enough to cause a runoff into the roadside ditches, but will be sufficient to penetrate the dirt for the desired stabilization and dust control. The speed of the truck will be used to control the application rate. The initial application rate for will not exceed 1 gallon/square yard, and will be reduced as stabilization is achieved.

C) The brine water will only be applied during daylight hours when rain is not imminent. There are no streams, creeks or lakes within 50 feet of any of the roads to be treated. There are two high quality spring seeps that the roads cross. These seeps are currently dry, which is typical during dry periods. The brine application will not be applied within 50 feet of these seeps.

7) Brine water is a natural by-product of oil well production operations. An oil lease tank battery consists of two 210 barrel separation tanks and a 200 barrel brine water storage tank. The brine water will be pumped/vacuumed direct from the storage tank into the permitted brine water transport truck. There will be no additional storage tanks constructed for brine water storage. A spill prevention and control plan (SPCC) is written and on-site.

Signed and submitted for consideration:


David Lunden, Landman


Date



Head Office: 103 South Kendall Avenue
Bradford, PA 16701
Tel: (814) 362-6493
Fax: (814) 368-7086

Exploration Office: 168 Wolfe Run Road
Freedom, PA 15042
Tel: (814) 598-3765
Fax: (866) 474-3575

Brine Water Road Treatment Agreement

Dallas Energy, LLC and their assigns are hereby granted permission by the undersigned landowner to spread produced brine water on the unpaved roadways located on the property for the purpose of roadbed stabilization and dust control.

Dallas Energy, LLC will adhere to all applicable New York State Department of Environmental Conservation controls for brine water surface applications, and will have the necessary permits in place for the specific activity.

This permission will be continuous until the landowner notifies Dallas Energy, LLC in writing that the permission is withdrawn by the landowner, or if the oil and gas lease presently in effect is surrendered by the Lessee.

Property Location:

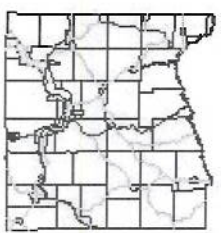
Tax Map Number(s):	110.001-1-3	110.022-1-2
County:	Cattaraugus	Cattaraugus
Town:	Carrollton	Carrollton
Assessed Acres:	40.9	8.8

Property Owner:

Name: Thomas J. Morris, Sr.

Signature: Thomas J. Morris
Title: Property Owner
Date: 7-14-11

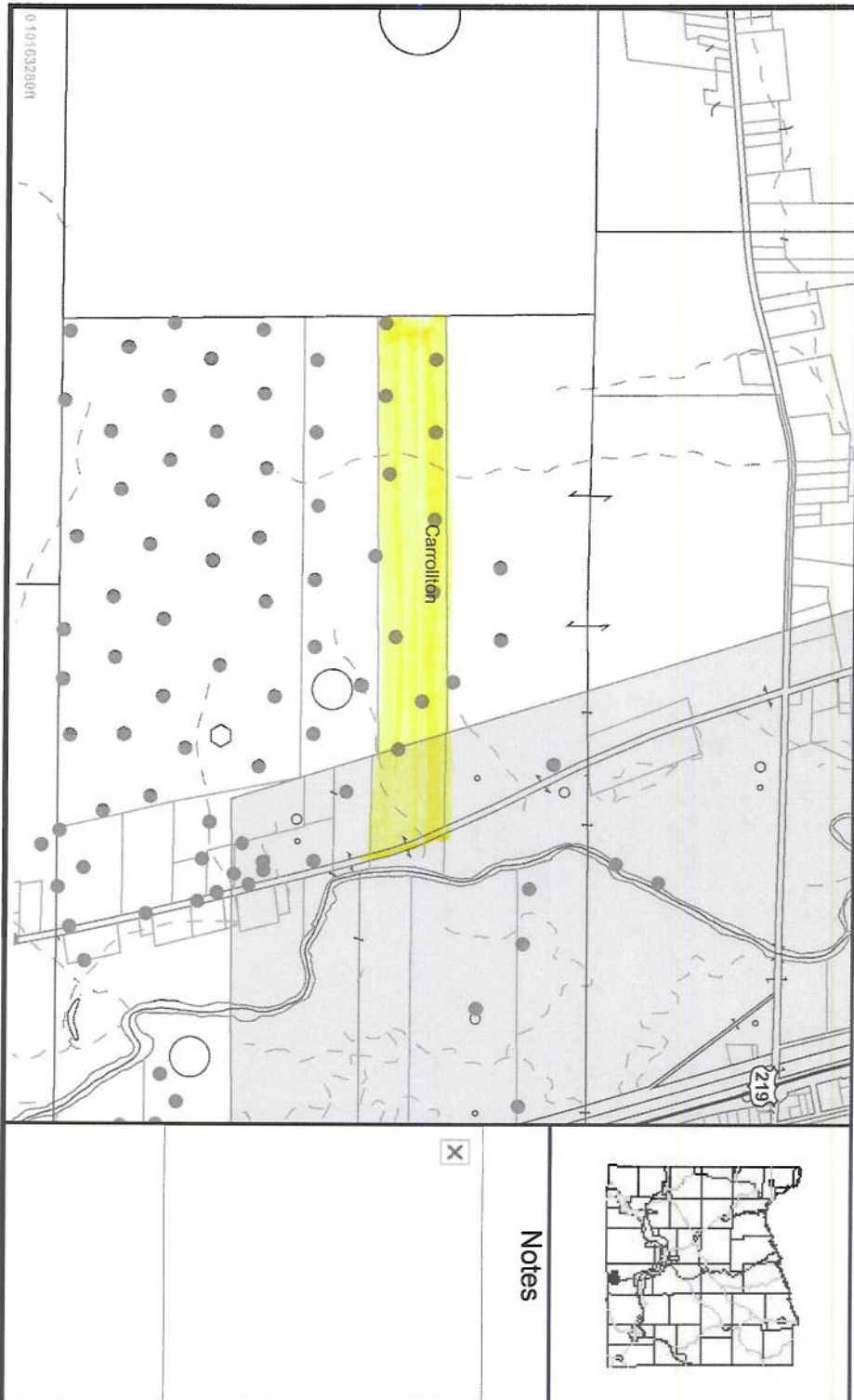
Cattaraugus County GIS



Notes

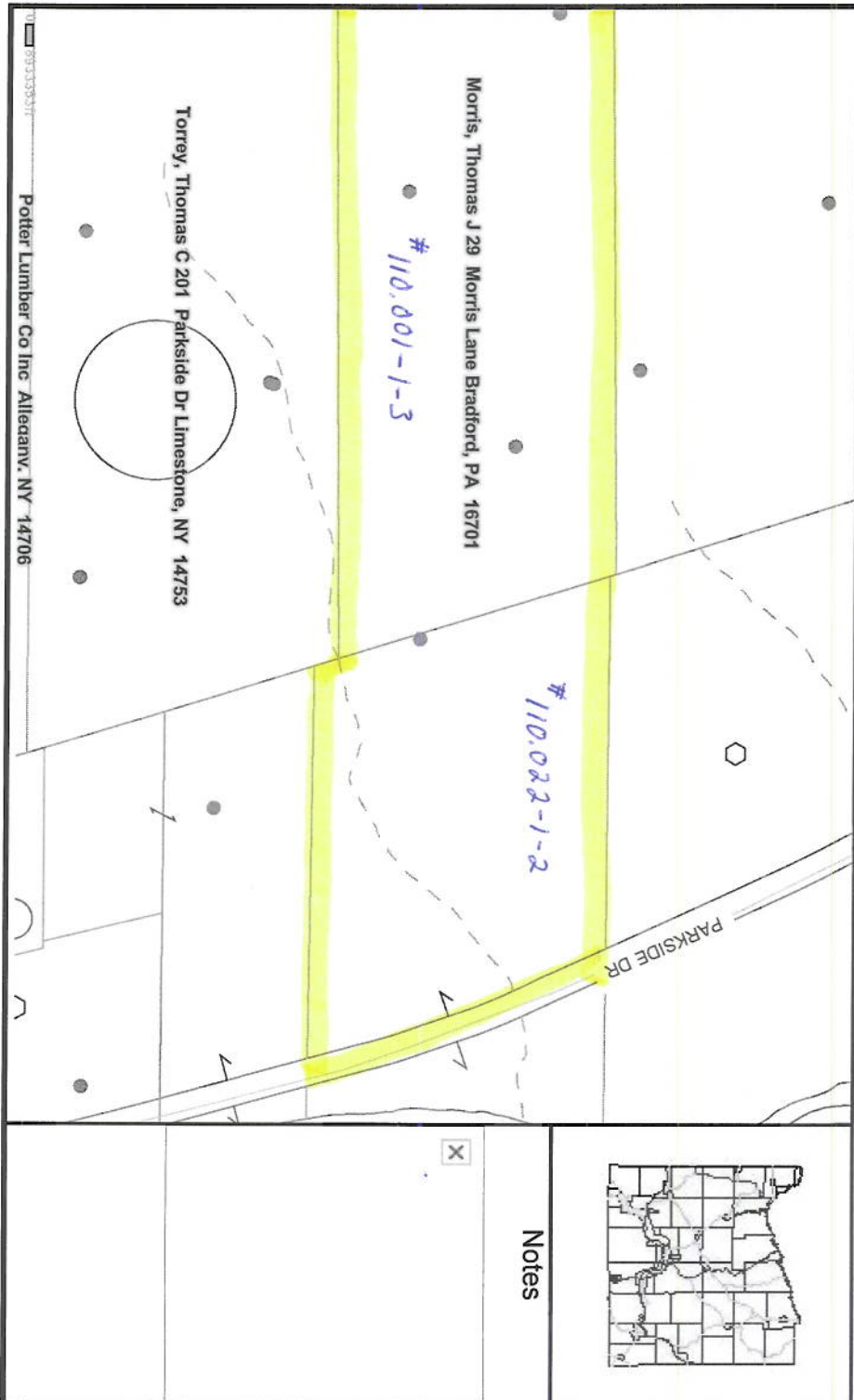


Cattaraugus County GIS



THOMAS MORRIS PROPERTY
OIL WELLS

Cattaraugus County GIS





ERIE DIVISION
1962 WAGER ROAD
ERIE, PA 16509
(814) 825-8533 FAX (814) 825-9254
CHERI BROLASKI, LABORATORY DIRECTOR
http://www.microbac.com E-Mail: erie@microbac.com

STATE CERT ID.
25-067, 10121
C-PA-05

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS
WATER · AIR · WASTES · FOOD · PHARMACEUTICALS · NUTRACEUTICALS

CERTIFICATE OF ANALYSIS

DALLAS ENERGY, LLC
MS, KAREN PETERSON
103 SOUTH KENDALL AVENUE
BRADFORD, PA 16701



Date Reported 12/31/2008
Date Received 12/18/2008
Order Number 0811-02468
Invoice No. 69015
Cust # 080438

Permit No.
Cust P.O.

SUBJECT: POTTER TANK BATTERY SAMPLE FOR ANALYSIS

Table with columns: TEST, METHOD, RESULT, UNITS, ANALYSIS DATE, TIME, TECH, ACCRED. Contains 5 sample rows (001-005) with various chemical and physical test results.



The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced wholly or in part for advertising or other purposes without approval from the laboratory.

USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research

NEI AP accredited by PA, NY. Visit our website to view our current NELAC accreditations for various drinking water, wastewater and solid & chemical materials, air & emissions analytes





ERIE DIVISION
1962 WAGER ROAD
ERIE, PA 16509
(814) 825-8533 FAX (814) 825-9254
CHERI BROLASKI, LABORATORY DIRECTOR
http://www.microbac.com E-Mail: erie@microbac.com

STATE CERT ID.
25-067, 10121
C-PA-05

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS
WATER · AIR · WASTES · FOOD · PHARMACEUTICALS · NUTRACEUTICALS

CERTIFICATE OF ANALYSIS

DALLAS ENERGY, LLC
MS, KAREN PETERSON
103 SOUTH KENDALL AVENUE
BRADFORD, PA 16701

Date Reported 12/31/2008
Date Received 12/18/2008
Order Number 0811-02468
Invoice No. 69015
Cust # 080438

Permit No.
Cust P.O.

SUBJECT: POTTER TANK BATTERY SAMPLE FOR ANALYSIS

Table with columns: TEST, METHOD, RESULT, UNITS, ANALYSIS DATE, ANALYSIS TIME, TECH ACCRED.

Sample collected by Microbac personnel in accordance with the respective Microbac/Erie Sampling SOP for the Matrix

Cheri A. Brolaski
Cheri A Brolaski
Laboratory Director

Electronic Copy Sent to: DALLAS ENERGY, LLC

Accred.
⌘ This symbol at the end of the test line means the test analysis met the requirements of NELAC (PA ID 25-00067)
❖ This symbol at the end of the test line means the test analysis met the requirements of AIHA (ID 100386)
◆ This symbol at the end of the test line means the test analysis met the requirements of NY ELAP (NY ID 10121)

ABBREVIATIONS:

- MG/KG = Milligram per Kilogram (PPM)
UG/L = Micrograms per Liter (PPB)
UG/KG = Micrograms per Kilogram (PPB)
MG/L = Milligrams per Liter (PPM)
1000 UG = 1 MG
Positive = Bacteria or target analyte detected
Negative = Bacteria or target analyte not detected
CFU = Colony Forming Unit
ND = Not detected at or below the reporting limit
TIC = Tentatively Identified Compound
"<" = less than (also see "ND")
">" = Greater than

For any feedback concerning our services, please contact Cheri Brolaski, Laboratory Director at cbrolaski@microbac.com or Trevor Boyce, President at president@microbac.com



The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced wholly or in part for advertising or other purposes without approval from the laboratory.
USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research

NELAP accredited by PA, NY. Visit our website to view our current NELAC accreditations for various drinking water, wastewater and solid & chemical materials, air & emissions analytes





Report of Analysis

Name: Dallas Energy, LLC.
 103 South Kendall Avenue
 Bradford, PA 16701

Sample Start Date: 6/3/2011 1:00 PM
Receipt Date: 6/8/2011 10:49 AM
Report Date: 6/29/2011

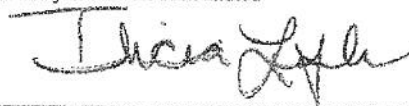
Sample ID#: 11 21675
Sample Type: Waste Water
Sample Source: Grab
Sampler: CLIENT (Client)
Client Sample ID: Potter Lease Brine #4

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Calcium - ICP	DRM	06/29	n/a	11530.000	mg/l	D	200.7/6010	50.000
Magnesium-ICP	DRM	06/29	n/a	2058.900	mg/l	D	200.7/6010	50.000
Sodium - ICP	DRM	06/29	n/a	29265.000	mg/l	D	200.7/6010	500.000

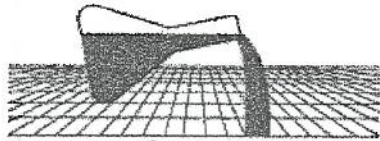
Comments:

ND--Not Detected

Note: DEP Certification #s 32-00382
 D - Indicates an identified compound in an analysis that has been diluted

Approved By: 

 Laboratory Supervisor



ENVIRONMENTAL
SERVICE LABORATORIES, INC.
1803 Philadelphia St., Indiana, PA 15701
(724) 463-TEST (724) 465-4209

Report of Analysis

Name: Dallas Energy, LLC.
103 South Kendall Avenue
Bradford, PA 16701
Sample Start Date: 6/3/2011 1:00 PM
Receipt Date: 6/8/2011 10:49 AM
Report Date: 6/28/2011

Sample ID#: 11 21674
Sample Type: Waste Water
Sample Source: Grab
Sampler: CLIENT (Client)
Client Sample ID: Potter Lease Brine #3

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Chloride	BF	06/27	n/a	72619.5	mg/l	n/a	SM4500CIC	5.0
Total Dissolved Solids (TDS)	LAW	06/10	n/a	153200	mg/l	n/a	SM2540C	25

Comments:

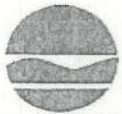
ND=Not Detected

Note: DEP Certification #s 32-00382

Approved By:

Laboratory Supervisor

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS



PART 364
WASTE TRANSPORTER PERMIT NO. PA-445

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

Handwritten in a box: EJ #s 6043 6047

PERMIT ISSUED TO:

C. J. MORRIS AND SONS, INC.
29 MORRIS LANE
BRADFORD, PA 16701

PERMIT TYPE:

- NEW
- RENEWAL
- MODIFICATION

CONTACT NAME: ROBERTA ANDERSON
COUNTY: OUT OF STATE
TELEPHONE NO: (814)362-6493

EFFECTIVE DATE: 10/09/2010
EXPIRATION DATE: 10/08/2011
US EPA ID NUMBER:

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)
BOLIVAR (V) WWTP	BOLIVAR , NY	Non-Hazardous Industrial/Commercial
PENNSYLVANIA BRINE TREATMENT, INC.	FRANKLIN , PA	Non-Hazardous Industrial/Commercial
THE BOROUGH OF RIDGEWAY	RIDGEWAY , PA	Non-Hazardous Industrial/Commercial
WASTE TREATMENT CORPORATION	WARREN , PA	Non-Hazardous Industrial/Commercial

NOTE: By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7253

AUTHORIZED SIGNATURE: _____

M. McTague

Date: _____

8/30/10

NOTICE

PAGE 1 OF 2

This permit is not valid until the effective date listed on the permit



PART 364
WASTE TRANSPORTER PERMIT NO. PA-445

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

C. J. MORRIS AND SONS, INC.
29 MORRIS LANE
BRADFORD, PA 16701

PERMIT TYPE:

- NEW
 RENEWAL
 MODIFICATION

CONTACT NAME: ROBERTA ANDERSON
COUNTY: OUT OF STATE
TELEPHONE NO: (814)362-6493

EFFECTIVE DATE: 10/09/2010
EXPIRATION DATE: 10/08/2011
US EPA ID NUMBER:

AUTHORIZED VEHICLES:

The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

2 (Two) Permitted Vehicle(s)

PA AF53444
PA AF54402
End of List

- CJ # 6047
- CJ # 6043

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

August 24, 2011

Mr. Charles Kabel
Owner/President
Kabel's Gas Service, Inc.
8950 Gowanda State Road
Eden, NY 14057

Dear Mr. Kabel:

Re: Brine Bud # **B035-11** - Dust Suppression
Transporter Permit # **9A-373**

We have reviewed the information submitted in your July 6, 2011 petition for the proposed beneficial use of brine transported to your property as a service to various well owners in the Eden, New York area and used as part of your dust suppression system. This brine is from wells in the Medina and related formations and not from Marcellus formation wells. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during flowback operations may not be spread on roads.
- All vehicles transporting brine must have a valid Part 364 permit.
- Dust control activities must be conducted in accordance with procedures described in your BUD petition and brine may only be spread on the driveway at the above company address at 8950 Gowanda State Road, Eden, NY. Vehicular equipment must be either dedicated to this use or cleaned of previously transported waste materials prior to this use. No brine can be applied after daylight hours or used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be applied on wet roads, during rain, or when rain is imminent.
- Brine may be applied a maximum of ten times on any section of road during a season. Please contact this office should the need arise to increase the application frequency.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

Kabel's Gas Service, Inc
8950 Gowanda State Road
Eden, NY 14057
716-992-9369

Jack A Aversa
Chief registration & Permits Section
Bureau of Technical Support
NYS DEC
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, NY 12233-7020

BUD Petition
Waste transport Permit 9A-373

July 6, 2011

Dear Mr. Aversa,

Kabel's Gas Service, Inc (KGS) has been in servicing gas wells since 1968. Upon inception of the waste transport permit process, our removal and dispersion of brine was inspected and approved by Robert Wozniak. We generally service only 8 to 20 wells per year. Our customers consist of mostly individuals, a few churches and several farming businesses, all within an approx 50 mile radius of our business. The majority of the wells are medina, but there a few flint wells as well.

Charles Kabel, owner/president is the only person involved as there are no employees. He collects all brine from the customer's well in a 400 gallon tank on the back of his pick up truck and transports it to our home/business at the above address, where it is dispersed over the gravel driveway for dust and weed control. The brine flows from a 2" perforated PVC pipe which attaches to the tank and is gravity fed on the driveway. It is not equipped with a shut off control, but there are no ditches, streams or bodies of water on the dispersion route. The average brine load is 100 to 200 gallons, with a max load of 400 gallons. At best, we can expect to have a maximum spreading of approx 30 times annually based on servicing 20 wells. All well cleanouts are done during the fair weather seasons.

Thank you for considering this BUD petition. Please feel free to call if any further clarification is needed.

Sincerely,



Lynn R Kabel
Secretary/Treasurer

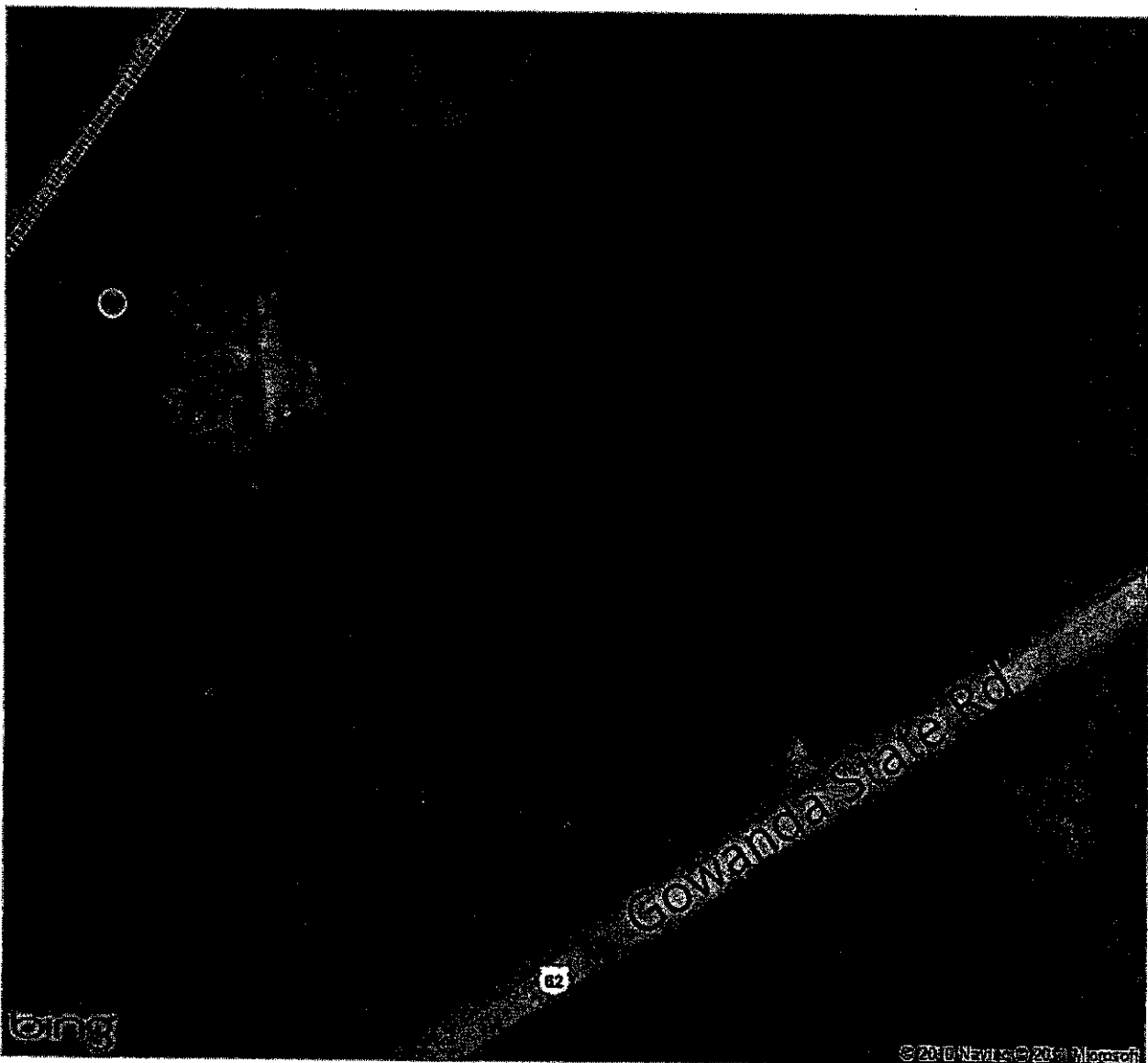
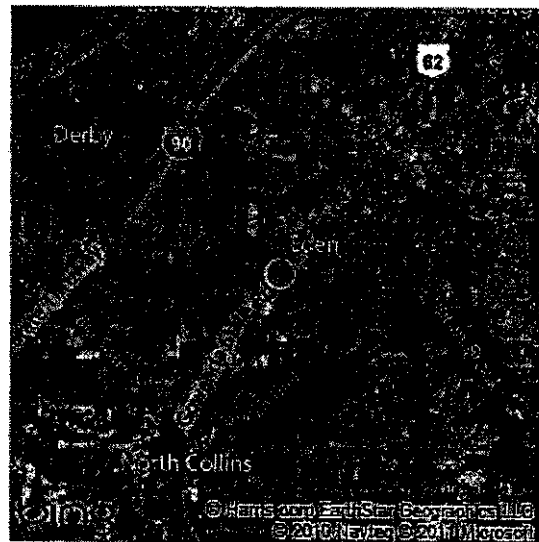
Bing Maps


8950 Gowanda State Rd, Eden, NY 14057-9537

My Notes

THE FOLIAGE BLOCKS THE VIEW OF THE DRIVE!

FREE! Use Bing 411 to find movies, businesses & more: 800-BING-411



 Bird's eye view maps can't be printed, so another map view has been substituted.

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

September 16, 2011

Mr. Dean Watson
Highway Superintendent
Town of Ward Highway Dept.
4414 County Rt. 10
Scio, NY 14880

Dear Mr. Watson:

Re: Brine Bud # **B036-11** - Dust Suppression and Road Stabilization
Transporter Permit # **9A-696**

We have reviewed the information submitted in your September 7, 2011 petition for the proposed beneficial use of brine from the National Fuel Gas -- Beech Hill Station facility located in Wellsville, New York as part of your dust control and road stabilization system. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- All vehicles transporting brine must have a valid Part 364 permit.
- Dust control and road stabilization activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied after daylight hours or used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be applied on wet roads, during rain, or when rain is imminent.
- Brine is approved for road spreading use on the roads listed in your September 7, 2011 petition. Brine may be applied a maximum of ten times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

TOWN OF WARD
Highway Department

BENEFICIAL USE DETERMINATION PETITION

September 7, 2011

1. - CONTACT PERSON -- Dean G. Watson
- ADDRESS - Work -- 4414 County Rt. 10 Scio, N.Y. 14880
HOME -- [REDACTED]
PHONE--WORK 585-593-7300
HOME [REDACTED]
CELL [REDACTED]

2. LIST OF TOWN HIGHWAYS TO RECEIVE BRINE AND STORAGE FACILITIES

- | | |
|----------------------|------------------------|
| - AUSTIN RD. | - IRISH SETTLEMENT RD. |
| - BAKER RD. | - MCGIBNEY RD. |
| - BRODY SLIDE RD. | - MULLIGAN RD. |
| - BROWN RD. | - NORTH RD. |
| - COOLEY HILL RD. | - PLUMBOTTOM RD. |
| - CORNELIUS RD. | - PUT BROOK RD. |
| - DECKER RD. | - SIM BROWN RD. |
| - DRY BROOK HILL RD. | - SPRAGUE RD. |
| - DUKE RD. | - STUCK HILL RD. |
| - EARL BROWN RD. | - WADSWORTH HILL RD. |
| - EASTON RD. | - WATSON RD. |
| - HEMLOCK HILL RD. | - WAUGH BROOK RD. |
| - HOGAN RD. | - WHITE RD. |

2 B. STORAGE

Town has no storage facilities

3. DESCRIPTION OF BRINE SPREADING

A. EQUIPMENT-

- 1988 Ford Tandem Truck with a 2,200 gal. stainless steel tank (removable)
- 1978 Autocar tandem truck with a 2,200 gal. stainless steel tank (removable)

B. TANK - Is used on both trucks and is used only for brine

C. BRINE APPLICATION-

Brine flow is controlled by a 2 inch ball valve that is operated by a pneumatic cylinder from inside the cab of the truck.

Maximum rate of flow is 4 gal. per. minute controlled by the spreader bar. Spreader bar is gravity fed. (no pumps)

D. Dust Control-

Rate of application of brine is 2,000gal. per mile.

E. ROAD STABILIZATION-

Rate of application of brine is 2,000gal. per $\frac{1}{2}$ mile.

FREQUENCY OF APPLICATION -

Dust control depends greatly on the weather but not more than two applications per road per year.

Road stabilization is one application on new section of gravel.

TOWN OF WARD
Highway Department

FAX COVER SHEET

4414 County Rt. 10
Scio, N.Y. 14880

Date : 9-7-11
To : Steve Condon
From : Dean Watson
Fax Number : 585-593-7666
Phone Number : 585-593-7300

Total pages, including cover. 30

SUBJECT : B.V.D. Bor town Highway Dept.

F. BRINE APPLICATION -

Brine will only be spread during normal work hours.
Highway department hours are 6:00am to 2:30pm monday
through friday.

All employees have been notified that no brine will be
spread within 50 feet of any stream, creek, lake or pond.
That no brine will be spread on any hill having more
than a 10% grade.

That no brine will be spread before oncoming, during
or after any rain.

G. DEICING -

Town highway department dose not use brine for deicing.

4. ADDRESS OF BRINE STORAGE

National Fuel - Beech Hill Station
1161 Peet Rd. Wellsville, N.Y. 14895
Phone - 585-593-4531 Fax - 585-593-4531

5. CEMICAL ANALYSIS OF BRINE -

See documentation by Test America
10 Hazelwood Drive Amherst, N.Y. 14228
Phone - 716-691-2600 Fax - 716-691-7991

6. GOVERNMENT AGENCY / AUTHORIZATION

Town of Ward Highway Department

Superintendent of highways - Dean G. Watson


Signature

Date 9-7-2011



Paul, inv. # 48002968

Analytical Report

Work Order: RTD1040

Project Description:
Brine - Priority Pollutant Analysis

For:

James Clark
National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Melissa Deyo

Melissa Deyo For Paul Morrow

Project Manager

melissa.deyo@testamericainc.com

Thursday, April 29, 2010

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.



THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		
Acid and Base/Neutral Extractables by EPA Method 625 - cont.										
3,3'-Dichlorobenzidine	ND		4.9	0.81	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4,6-Dinitro-2-methylphenol	ND		9.8	0.75	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Bromophenyl phenyl ether	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Chloro-3-methylphenol	ND		4.9	0.55	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Chlorophenyl phenyl ether	ND		4.9	0.20	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Nitrophenol	ND		9.8	1.3	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Acenaphthene	ND		4.9	0.059	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Acenaphthylene	ND		4.9	0.033	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Anthracene	ND		4.9	0.051	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzdine	ND	L	78	2.5	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(a)anthracene	ND		4.9	0.042	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(a)pyrene	ND		4.9	0.057	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(b)fluoranthene	ND		4.9	0.060	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(ghi)perylene	ND		4.9	0.098	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(k)fluoranthene	ND		4.9	0.041	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-chloroethoxy)methane	ND		4.9	0.083	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-chloroethyl)ether	ND		4.9	1.1	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,2'-Oxybis(1-Chloropropane)	ND		4.9	0.084	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-ethylhexyl)phthalate	ND		9.8	0.85	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Butyl benzyl phthalate	ND		4.9	1.3	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Chrysene	ND		4.9	0.035	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Dibenzo(a,h)anthracene	ND		4.9	0.054	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Diethyl phthalate	ND	L	4.9	0.17	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Dimethyl phthalate	ND	L	4.9	0.16	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Di-n-butyl phthalate	ND	L	4.9	0.92	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Di-n-octyl phthalate	ND		4.9	4.4	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Fluoranthene	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Fluorene	ND		4.9	0.042	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorobenzene	ND		4.9	0.27	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorobutadiene	ND		4.9	0.50	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorocyclopentadiene	ND		4.9	0.44	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachloroethane	ND		4.9	0.47	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Indeno(1,2,3-cd)pyrene	ND		4.9	0.18	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Isophorone	ND		4.9	0.15	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Naphthalene	0.17	J	4.9	0.079	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Nitrobenzene	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodimethylamine	ND		9.8	0.94	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodi-n-propylamine	ND		4.9	0.23	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodiphenylamine	ND	L	4.9	0.39	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Pentachlorophenol	ND		9.8	0.40	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenanthrene	ND	L	4.9	0.070	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenol	13		4.9	0.12	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Pyrene	ND	L	4.9	0.040	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625



THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	DII Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		

Acid and Base/Neutral Extractables by EPA Method 625 - cont.

2-Fluorophenol	85 %		Surr Limits: (17-120%)				04/13/10 08:29	MAF	10D0825	625
Phenol-d5	103 %		Surr Limits: (10-120%)				04/13/10 08:29	MAF	10D0825	625
Nitrobenzene-d5	97 %		Surr Limits: (42-120%)				04/13/10 08:29	MAF	10D0825	625
2-Fluorobiphenyl	84 %		Surr Limits: (44-120%)				04/13/10 08:29	MAF	10D0825	625
2,4,6-Tribromophenol	113 %		Surr Limits: (49-122%)				04/13/10 08:29	MAF	10D0825	625
p-Terphenyl-d14	55 %		Surr Limits: (22-125%)				04/13/10 08:29	MAF	10D0825	625

Organochlorine Pesticides and PCBs by EPA Method 608

Aroclor 1016	ND	QSU	0.058	0.037	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1221	ND	QSU	0.058	0.039	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1232	ND	QSU	0.058	0.048	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1242	ND	QSU	0.058	0.043	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1248	ND	QSU	0.058	0.035	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1254	ND	QSU	0.058	0.014	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1260	ND	QSU	0.058	0.010	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1262	ND	QSU	0.058	0.048	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1268	ND	QSU	0.058	0.023	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Decachlorobiphenyl	49 %	QSU	Surr Limits: (26-145%)				04/13/10 07:53	JxM	10D0875	608
Tetrachloro-m-xylene	79 %	QSU	Surr Limits: (25-152%)				04/13/10 07:53	JxM	10D0875	608
4,4'-DDD [2C]	ND		0.049	0.0089	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
4,4'-DDE [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
4,4'-DDT [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Aldrin [2C]	ND		0.049	0.0064	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
alpha-BHC [2C]	ND		0.049	0.0064	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
beta-BHC [2C]	ND		0.049	0.024	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Chlordane [2C]	ND		0.49	0.028	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
delta-BHC [2C]	ND		0.049	0.0098	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Dieldrin [2C]	ND		0.049	0.0096	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan I [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan II [2C]	ND		0.049	0.012	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan sulfate [2C]	ND		0.049	0.015	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endrin [2C]	ND		0.049	0.013	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endrin aldehyde [2C]	ND		0.049	0.016	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
gamma-BHC (Lindane) [2C]	0.028	J	0.049	0.0058	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Heptachlor [2C]	ND		0.049	0.0083	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Heptachlor epoxide [2C]	ND		0.049	0.0061	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Toxaphene [2C]	ND		0.49	0.12	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Decachlorobiphenyl [2C]	21 %		Surr Limits: (15-139%)				04/15/10 13:23	DGB	10D0869	608
Tetrachloro-m-xylene [2C]	61 %		Surr Limits: (30-139%)				04/15/10 13:23	DGB	10D0869	608

Total Metals by EPA 200 Series Methods

Antimony	ND	D02	0.400	0.136	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Arsenic	0.0145		0.0100	0.0056	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Beryllium	0.0114		0.0020	0.0002	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Cadmium	0.0022		0.0010	0.0003	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Calcium	40500	D08	50.0	10.0	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Chromium	ND		0.0040	0.0009	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Copper	0.0070	J	0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991
www.testamericainc.com



National Fuel & Gas - Buffalo, NY
 386 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040.
 Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

Received: 04/09/10
 Reported: 04/29/10 10:10

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	DII Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:56		
Total Metals by EPA 200 Series Methods - cont.										
Lead	ND	D02	0.0250	0.0150	mg/L	5.00	04/14/10 10:53	DAN	10D1007	200.7
Magnesium	4390	D08	4.00	0.868	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Nickel	ND		0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Selenium	ND	D02	0.300	0.174	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Silver	ND		0.0030	0.0012	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Sodium	19100	D08	100	32.4	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Thallium	ND	D02	0.100	0.0512	mg/L	5.00	04/14/10 10:53	DAN	10D1007	200.7
Zinc	0.0378		0.0100	0.0015	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Mercury	ND	S9	0.0012	0.0007	mg/L	1.00	04/13/10 17:12	MXM	10D1098	245.1
General Chemistry Parameters										
Oil and Grease	3.0	J	5.0	1.4	mg/L	1.00	04/12/10 11:40	JME	10D0971	1664A
Chloride	220000	D08	20000	9200	mg/L	20000	04/20/10 15:04	KLD	10D1994	4500-CL E
Cyanide	ND		0.0100	NR	mg/L	1.00	04/17/10 11:05	JME	10D1532	335.4
pH	5.78	HFT	0.00500	0.00	SU	1.00	04/10/10 00:07	JFR	10D1048	9040
Total Recoverable	0.0099	J	0.0100	0.0050	mg/L	1.00	04/14/10 16:36	KLD	10D1239	420.4
Phenolics										
Total Dissolved Solids	308000	D08, B	2000	800	mg/L	200	04/13/10 22:00	AMP	10D1135	2540C
Specific Conductance (25 C)	180000		NA	0.0	umhos/cm	1.00	04/12/10 10:43	KLD	10D1002	120.1
Total Organic Carbon	127	D08	40.0	17.4	mg/L	40.0	04/22/10 21:15	KLD	10D2194	9080
Total Organic Halides (Tox)	9330	D15, B	5000	1630	ug/L	1.00	04/22/10 10:37	JMM	10D1897	9020



THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
 Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	W/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Acid and Base/Neutral Extractables by EPA Method 625									
825	10D0825	RTD1040-01	1,020.00	mL	1.00	mL	04/10/10 09:27	LTT	3510C MB
General Chemistry Parameters									
120.1	10D1002	RTD1040-01	50.00	mL	50.00	mL	04/12/10 10:43	KLD	No prep Conductance
1664A	10D0971	RTD1040-01	1,010.00	mL	1,000.00	mL	04/12/10 11:40	JME	No prep Oil and Grease
2540C	10D1135	RTD1040-01	100.00	mL	100.00	mL	04/13/10 22:00	MDM	Solids
335.4	10D1532	RTD1040-01	50.00	mL	50.00	mL	04/16/10 14:05	AMP	Cn Digestion
420.4	10D1239	RTD1040-01	50.00	mL	50.00	mL	04/14/10 12:38	JME	TRP Distillation
4500-CL E	10D1994	RTD1040-01	2.00	mL	2.00	mL	04/20/10 13:04	KLD	No Prep Chloride
9020	10D1897	RTD1040-01	0.40	mL	100.00	mL	04/20/10 12:59	JMM	No prep TOX
9040	10D1046	RTD1040-01	1.00	mL	1.00	mL	04/10/10 00:07	JFR	pH
9060	10D2194	RTD1040-01	40.00	mL	40.00	mL	04/22/10 16:33	KLD	No prep Carbon
Organochlorine Pesticides and PCBs by EPA Method 808									
608	10D0875	RTD1040-01	1,030.00	mL	2.00	mL	04/12/10 05:00	BML	3510C GC
608	10D0869	RTD1040-01	1,030.00	mL	10.00	mL	04/11/10 09:00	KMB	3510C GC
Total Metals by EPA 200 Series Methods									
200.7	10D1007	RTD1040-01	50.00	mL	50.00	mL	04/13/10 07:45	KCW	3005A
245.1	10D1099	RTD1040-01	5.00	mL	50.00	mL	04/13/10 13:30	MXM	7470A
Volatile Organic Compounds									
624	10D0944	RTD1040-01	5.00	mL	5.00	mL	04/12/10 10:54	TRB	5030B MS



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Received: 04/09/10
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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% RPD	RPD Limit	Data Qualifiers
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Volatile Organic Compounds

Blank Analyzed: 04/12/10 (Lab Number:10D0944-BLK1, Batch: 10D0944)

1,1,1-Trichloroethane			5.0	0.38	ug/L	ND				
1,1,2,2-Tetrachloroethane			5.0	0.26	ug/L	ND				
1,1,2-Trichloroethane			5.0	0.48	ug/L	ND				
1,1-Dichloroethane			5.0	0.59	ug/L	ND				
1,1-Dichloroethene			5.0	0.85	ug/L	ND				
1,2-Dichlorobenzene			5.0	0.44	ug/L	ND				
1,2-Dichloroethane			5.0	0.60	ug/L	ND				
1,2-Dichloropropane			5.0	0.61	ug/L	ND				
1,3-Dichlorobenzene			5.0	0.54	ug/L	ND				
1,4-Dichlorobenzene			5.0	0.51	ug/L	ND				
2-Chloroethyl vinyl ether			25	1.6	ug/L	ND				
Benzene			5.0	0.60	ug/L	ND				
Bromodichloromethane			5.0	0.54	ug/L	ND				
Bromoform			5.0	0.47	ug/L	ND				
Bromomethane			5.0	1.2	ug/L	ND				
Carbon Tetrachloride			5.0	0.51	ug/L	ND				
Chlorobenzene			5.0	0.48	ug/L	ND				
Chlorodibromomethane			5.0	0.41	ug/L	ND				
Chloroethane			5.0	0.87	ug/L	ND				
Chloroform			5.0	0.54	ug/L	ND				
Chloromethane			5.0	0.64	ug/L	ND				
cis-1,3-Dichloropropene			5.0	0.33	ug/L	ND				
Ethylbenzene			5.0	0.46	ug/L	ND				
Methylene Chloride			5.0	0.81	ug/L	ND				
Tetrachloroethene			5.0	0.34	ug/L	ND				
Toluene			5.0	0.45	ug/L	ND				
trans-1,2-Dichloroethene			5.0	0.69	ug/L	ND				
trans-1,3-Dichloropropene			5.0	0.44	ug/L	ND				
Trichloroethene			5.0	0.60	ug/L	ND				
Trichlorofluoromethane			5.0	0.45	ug/L	ND				
Vinyl chloride			5.0	0.75	ug/L	ND				

Surrogate:					ug/L		96	88-132		
1,2-Dichloroethane-d4					ug/L		96	78-122		
Surrogate:					ug/L		99	87-110		
4-Bromofluorobenzene					ug/L					
Surrogate: Toluene-d8					ug/L					

LCS Analyzed: 04/12/10 (Lab Number:10D0944-BS1, Batch: 10D0944)

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Volatile Organic Compounds										
LCS Analyzed: 04/12/10 (Lab Number:10D0944-BS1, Batch: 10D0944)										
1,1,1-Trichloroethane		20.0	5.0	0.38	ug/L	18.5	93	75-125		
1,1,2,2-Tetrachloroethane		20.0	5.0	0.26	ug/L	17.0	85	61-140		
1,1,2-Trichloroethane		20.0	5.0	0.48	ug/L	18.8	93	71-129		
1,1-Dichloroethane		20.0	5.0	0.59	ug/L	19.0	95	73-126		
1,1-Dichloroethene		20.0	5.0	0.85	ug/L	18.7	94	61-150		
1,2-Dichlorobenzene		20.0	5.0	0.44	ug/L	20.7	103	63-137		
1,2-Dichloroethane		20.0	5.0	0.60	ug/L	19.3	97	68-132		
1,2-Dichloropropane		20.0	5.0	0.61	ug/L	19.6	98	34-166		
1,3-Dichlorobenzene		20.0	5.0	0.54	ug/L	21.0	105	73-127		
1,4-Dichlorobenzene		20.0	5.0	0.51	ug/L	20.0	100	63-137		
2-Chloroethyl vinyl ether		100	25	1.8	ug/L	103	103	1-224		
Benzene		20.0	5.0	0.60	ug/L	18.5	97	64-136		
Bromodichloromethane		20.0	5.0	0.54	ug/L	19.4	97	66-135		
Bromoform		20.0	5.0	0.47	ug/L	18.9	85	71-128		
Bromomethane		20.0	5.0	1.2	ug/L	18.8	94	14-166		
Carbon Tetrachloride		20.0	5.0	0.61	ug/L	18.2	91	73-127		
Chlorobenzene		20.0	5.0	0.48	ug/L	19.3	98	66-134		
Chlorodibromomethane		20.0	5.0	0.41	ug/L	18.2	91	68-133		
Chloroethane		20.0	5.0	0.87	ug/L	17.0	85	36-162		
Chloroform		20.0	5.0	0.54	ug/L	18.9	94	68-133		
Chloromethane		20.0	5.0	0.84	ug/L	20.0	100	1-204		
cis-1,3-Dichloropropene		20.0	5.0	0.33	ug/L	19.0	95	24-176		
Ethylbenzene		20.0	5.0	0.46	ug/L	19.1	96	69-141		
Methylene Chloride		20.0	5.0	0.81	ug/L	20.1	101	61-140		
Tetrachloroethene		20.0	5.0	0.34	ug/L	18.4	92	74-127		
Toluene		20.0	5.0	0.45	ug/L	18.9	95	75-126		
trans-1,2-Dichloroethene		20.0	5.0	0.59	ug/L	19.2	96	70-131		
trans-1,3-Dichloropropene		20.0	5.0	0.44	ug/L	18.0	90	50-150		
Trichloroethene		20.0	5.0	0.60	ug/L	18.1	90	67-134		
Trichlorofluoromethane		20.0	5.0	0.45	ug/L	18.9	94	48-152		
Vinyl chloride		20.0	5.0	0.75	ug/L	19.5	97	4-196		
Surrogate:					ug/L		95	88-132		
1,2-Dichloroethane-d4					ug/L		99	78-122		
Surrogate:					ug/L		98	87-110		
4-Bromofluorobenzene					ug/L		98	87-110		
Surrogate: Toluene-d8					ug/L		98	87-110		



THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040
 Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

Received: 04/09/10
 Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 04/13/10 (Lab Number:10D0825-BLK1, Batch: 10D0825)											
1,2,4-Trichlorobenzene			10	0.49	ug/L	ND					
1,2-Dichlorobenzene			10	0.14	ug/L	ND					
1,2-Diphenylhydrazine			10	0.063	ug/L	ND					
1,3-Dichlorobenzene			10	0.069	ug/L	ND					
1,4-Dichlorobenzene			10	0.090	ug/L	ND					
2,4,6-Trichlorophenol			5.0	0.23	ug/L	ND					
2,4-Dichlorophenol			5.0	0.30	ug/L	ND					
2,4-Dimethylphenol			5.0	0.13	ug/L	ND					
2,4-Dinitrophenol			10	0.84	ug/L	ND					
2,4-Dinitrotoluene			5.0	0.26	ug/L	ND					
2,6-Dinitrotoluene			5.0	0.72	ug/L	ND					
2-Chloronaphthalene			5.0	0.068	ug/L	ND					
2-Chlorophenol			5.0	0.16	ug/L	ND					
2-Nitrophenol			5.0	0.14	ug/L	ND					
3,3'-Dichlorobenzidine			5.0	0.82	ug/L	ND					
4,6-Dinitro-2-methylphenol			10	0.76	ug/L	ND					
4-Bromophenyl phenyl ether			5.0	0.11	ug/L	ND					
4-Chloro-3-methylphenol			5.0	0.56	ug/L	ND					
4-Chlorophenyl phenyl ether			5.0	0.21	ug/L	ND					
4-Nitrophenol			10	1.3	ug/L	ND					
Acenaphthene			5.0	0.060	ug/L	ND					
Acenaphthylene			5.0	0.034	ug/L	ND					
Anthracene			5.0	0.062	ug/L	ND					
Benzidine			80	2.5	ug/L	ND					
Benzo(a)anthracene			5.0	0.043	ug/L	ND					
Benzo(a)pyrene			5.0	0.059	ug/L	ND					
Benzo(b)fluoranthene			5.0	0.062	ug/L	ND					
Benzo(ghi)perylene			5.0	0.10	ug/L	0.24					J
Benzo(k)fluoranthene			5.0	0.042	ug/L	ND					
Bis(2-chloroethoxy)methane			5.0	0.065	ug/L	ND					
Bis(2-chloroethyl)ether			5.0	1.1	ug/L	ND					
2,2'-Oxybis(1-Chloropropane)			5.0	0.086	ug/L	ND					
Bis(2-ethylhexyl)phthalate			10	0.86	ug/L	ND					
Butyl benzyl phthalate			5.0	1.3	ug/L	ND					

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Work Order: RTD1040

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Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 04/13/10 (Lab Number:10D0825-BLK1, Batch: 10D0825)											
Chrysene			5.0	0.036	ug/L	ND					
Dibenzo(a,h)anthracene			5.0	0.055	ug/L	0.33					J
Diethyl phthalate			5.0	0.17	ug/L	ND					
Dimethyl phthalate			5.0	0.17	ug/L	ND					
Di-n-butyl phthalate			5.0	0.94	ug/L	ND					
Di-n-octyl phthalate			5.0	4.5	ug/L	ND					
Fluoranthene			5.0	0.11	ug/L	ND					
Fluorene			5.0	0.043	ug/L	ND					
Hexachlorobenzene			5.0	0.28	ug/L	ND					
Hexachlorobutadiene			5.0	0.62	ug/L	ND					
Hexachlorocyclopentadiene			5.0	0.45	ug/L	ND					
Hexachloroethane			5.0	0.48	ug/L	ND					
Indeno(1,2,3-cd)pyrene			5.0	0.19	ug/L	ND					
Isophorone			5.0	0.16	ug/L	ND					
Naphthalene			5.0	0.080	ug/L	ND					
Nitrobenzene			5.0	0.11	ug/L	ND					
N-Nitrosodimethylamine			10	0.98	ug/L	ND					
N-Nitrosodi-n-propylamine			5.0	0.23	ug/L	ND					
N-Nitrosodiphenylamine			5.0	0.40	ug/L	ND					
Pentachlorophenol			10	0.41	ug/L	ND					
Phenanthrene			5.0	0.071	ug/L	ND					
Phenol			5.0	0.12	ug/L	ND					
Pyrene			5.0	0.041	ug/L	ND					

Surrogate:					ug/L		53	17-120			
2-Fluorophenol					ug/L		40	10-120			
Surrogate: Phenol-d5					ug/L		96	42-120			
Surrogate:					ug/L		96	44-120			
Nitrobenzene-d5					ug/L		106	49-122			
Surrogate:					ug/L		108	22-125			
2-Fluorobiphenyl					ug/L						
Surrogate:					ug/L						
2,4,6-Tribromophenol					ug/L						
Surrogate:					ug/L						
p-Terphenyl-d14					ug/L						

LCS Analyzed: 04/13/10 (Lab Number:10D0825-BS1, Batch: 10D0825)

1,2,4-Trichlorobenzene	50.0	10	0.49	ug/L	39.3	79	44-142				
1,2-Dichlorobenzene	50.0	10	0.14	ug/L	38.7	77	32-129				
1,2-Diphenylhydrazine		10	0.063	ug/L	80.9		47-148				
1,3-Dichlorobenzene	50.0	10	0.069	ug/L	37.2	74	1-172				

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625										
LCS Analyzed: 04/13/10 (Lab Number:10D0825-BS1, Batch: 19D0825)										
1,4-Dichlorobenzene		50.0	10	0.080	ug/L	37.8	76	20-124		
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	81.3	123	37-144		
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	54.7	109	39-136		
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	48.3	97	32-119		
2,4-Dinitrophenol		50.0	10	0.84	ug/L	39.4	79	1-191		
2,4-Dinitrotoluene		50.0	5.0	0.26	ug/L	63.9	128	39-139		
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	96.0	132	50-168		
2-Chloronaphthalene		50.0	5.0	0.068	ug/L	51.2	102	60-118		
2-Chlorophenol		50.0	5.0	0.16	ug/L	46.2	92	23-134		
2-Nitrophenol		50.0	5.0	0.14	ug/L	53.6	107	29-182		
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	85.3	171	1-262		E
4,6-Dinitro-2-methylphenol		50.0	10	0.76	ug/L	66.9	134	1-181		
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	59.0	118	53-127		
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	59.8	120	22-147		
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	55.9	112	26-168		
4-Nitrophenol		50.0	10	1.3	ug/L	28.9	58	1-132		
Acenaphthene		50.0	5.0	0.060	ug/L	56.0	110	47-145		
Acenaphthylene		50.0	5.0	0.034	ug/L	56.9	114	33-145		
Anthracene		50.0	5.0	0.052	ug/L	62.5	125	27-133		
Benzidine		50.0	80	2.5	ug/L	118	237	1-120		L1,E
Benzo(a)anthracene		50.0	5.0	0.043	ug/L	60.3	121	33-143		
Benzo(a)pyrene		50.0	5.0	0.059	ug/L	61.0	122	17-163		
Benzo(b)fluoranthene		50.0	5.0	0.062	ug/L	55.1	110	24-159		
Benzo(ghi)perylene		50.0	5.0	0.10	ug/L	66.4	133	1-219		B
Benzo(k)fluoranthene		50.0	5.0	0.042	ug/L	52.1	104	11-162		
Bis(2-chloroethoxy)methane		50.0	5.0	0.085	ug/L	48.0	92	33-184		
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	42.0	84	12-158		
2,2'-Oxybis(1-Chloropropane)		50.0	5.0	0.086	ug/L	43.6	87	38-166		
Bis(2-ethylhexyl)phthalate		50.0	10	0.86	ug/L	63.5	127	8-158		
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	67.3	135	1-152		
Chrysene		50.0	5.0	0.038	ug/L	62.3	125	17-168		
Dibenzo(a,h)anthracene		50.0	5.0	0.055	ug/L	62.7	126	1-227		B
Diethyl phthalate		50.0	5.0	0.17	ug/L	62.5	125	1-114		L1
Dimethyl phthalate		50.0	5.0	0.17	ug/L	57.2	114	1-112		L1

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 825										
LCS Analyzed: 04/13/10 (Lab Number:10D0825-B51, Batch: 10D0825)										
Di-n-butyl phthalate		50.0	5.0	0.94	ug/L	66.9	134	1-118		L1
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	60.8	122	4-146		
Fluoranthene		50.0	5.0	0.11	ug/L	62.4	125	25-137		
Fluorene		50.0	5.0	0.043	ug/L	58.7	117	69-121		
Hexachlorobenzene		50.0	5.0	0.28	ug/L	55.8	112	1-152		
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	37.6	75	24-116		
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	32.1	64	5-120		
Hexachloroethane		50.0	5.0	0.48	ug/L	39.2	78	40-113		
Indeno(1,2,3-cd)pyrene		50.0	5.0	0.19	ug/L	64.5	129	1-171		
Isophorone		50.0	5.0	0.16	ug/L	48.4	97	21-196		
Naphthalene		50.0	5.0	0.080	ug/L	45.9	92	21-133		
Nitrobenzene		50.0	5.0	0.11	ug/L	46.5	93	35-180		
N-Nitrosodimethylamine		50.0	10	0.96	ug/L	27.3	55	19-120		
N-Nitrosodl-n-propylamine		50.0	5.0	0.23	ug/L	51.2	102	1-230		
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	72.8	146	54-125		L1
Pentachlorophenol		50.0	10	0.41	ug/L	64.1	128	14-176		
Phenanthrene		50.0	5.0	0.071	ug/L	62.3	125	54-120		L1
Phenol		50.0	5.0	0.12	ug/L	22.0	44	5-112		
Pyrene		50.0	5.0	0.041	ug/L	64.0	128	52-115		L1
<i>Surrogate:</i>					ug/L		54	17-120		
<i>2-Fluorophenol</i>					ug/L		40	10-120		
<i>Surrogate: Phenol-d5</i>					ug/L		95	42-120		
<i>Surrogate:</i>					ug/L					
<i>Nitrobenzene-d5</i>					ug/L		98	44-120		
<i>Surrogate:</i>					ug/L					
<i>2-Fluorobiphenyl</i>					ug/L		118	49-122		
<i>Surrogate:</i>					ug/L					
<i>2,4,6-Tribromophenol</i>					ug/L		109	22-125		
<i>Surrogate:</i>					ug/L					
<i>p-Terphenyl-d14</i>					ug/L					
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)										
1,2,4-Trichlorobenzene		50.0	10	0.49	ug/L	37.8	76	44-142	4	34
1,2-Dichlorobenzene		50.0	10	0.14	ug/L	37.5	75	32-129	3	38
1,2-Diphenylhydrazine			10	0.063	ug/L	58.9		47-148	3	20
1,3-Dichlorobenzene		50.0	10	0.069	ug/L	35.9	72	1-172	4	37
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	36.7	73	20-124	3	40
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	58.9	118	37-144	4	20
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	53.5	107	39-135	2	23
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	49.5	99	32-119	2	18

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7891
 www.testamericainc.com

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFGReceived: 04/09/10
Reported: 04/29/10 10:10**TestAmerica Buffalo
Current Certifications**As of 12/21/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01189CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0588
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA, NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SWCS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP, SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA, RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington*	NELAP CWA, RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA, RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10

Reported: 04/29/10 10:10

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyzes are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg B
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- D02** Dilution required due to sample matrix effects
- D08** Dilution required due to high concentration of target analyte(s)
- D15** Sample weight / volume has been reduced to eliminate matrix interference. Reporting limits have been adjusted accordingly.
- E** Concentration exceeds the calibration range and therefore result is semi-quantitative.
- HFT** The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
- J** Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
- L** Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits.
- L1** Analyte not detected, data not impacted.
- L1** Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- QSU** Sulfur (EPA 3660) clean-up performed on extract.
- S9** Unable to digest full amount of sample due to matrix problem.
- NR** Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.



National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
 Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water)										
Sampled: 04/09/10 11:15 Recvd: 04/09/10 15:55										
Volatile Organic Compounds										
Benzene	36		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloromethane	2.7	J	5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Toluene	5.2		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Acid and Base/Neutral Extractables by EPA Method 825										
2,4-Dimethylphenol	0.15	J	4.9	0.13	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Naphthalene	0.17	J	4.9	0.079	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenol	13		4.9	0.12	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Organochlorine Pesticides and PCBs by EPA Method 608										
gamma-BHC (Lindane) [2C]	0.028	J	0.049	0.0056	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Total Metals by EPA 200 Series Methods										
Arsenic	0.0145		0.0100	0.0056	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Beryllium	0.0114		0.0020	0.0002	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Cadmium	0.0022		0.0010	0.0003	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Calcium	40500	D08	50.0	10.0	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Copper	0.0079	J	0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Magnesium	4390	D08	4.00	0.858	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Sodium	19100	D08	100	32.4	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Zinc	0.0376		0.0100	0.0015	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
General Chemistry Parameters										
Oil and Grease	3.0	J	5.0	1.4	mg/L	1.00	04/12/10 11:40	JME	10D0971	1864A
Chloride	220000	D08	20000	9200	mg/L	20000	04/20/10 15:04	KLD	10D1894	4500-CL E
pH	5.78	HFT	0.00500	0.00	SU	1.00	04/10/10 00:07	JFR	10D1048	9040
Total Recoverable Phenolics	0.0099	J	0.0100	0.0050	mg/L	1.00	04/14/10 15:36	KLD	10D1239	420.4
Total Dissolved Solids	308000	D08, B	2000	800	mg/L	200	04/13/10 22:00	AMP	10D1135	2540C
Specific Conductance (25 C)	160000		NR	0.0	umhos/cm	1.00	04/12/10 10:43	KLD	10D1002	120.1
Total Organic Carbon	127	D08	40.0	17.4	mg/L	40.0	04/22/10 21:15	KLD	10D2194	9060
Total Organic Halides (Tox)	9330	D15, B	5000	1630	ug/L	1.00	04/22/10 10:37	JMM	10D1897	9020



THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
 305 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

Received: 04/09/10
 Reported: 04/29/10 10:10

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
BRINE	RTD1040-01	Water	04/09/10 11:15	04/09/10 16:55	



THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/28/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water)										
						Sampled: 04/09/10 11:15	Recvd: 04/09/10 15:55			
Volatle Organic Compounds										
1,1,1-Trichloroethane	ND		5.0	0.73	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1,2,2-Tetrachloroethane	ND		5.0	1.2	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1-Dichloroethane	ND		5.0	0.59	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1-Dichloroethene	ND		5.0	0.85	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloroethane	ND		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloropropane	ND		5.0	0.61	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
2-Chloroethyl vinyl ether	ND		25	3.7	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Benzene	36		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromodichloromethane	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromoform	ND		5.0	0.47	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromomethane	ND		5.0	1.2	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Carbon Tetrachloride	ND		5.0	0.51	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chlorobenzene	ND		5.0	0.48	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chlorodibromomethane	ND		5.0	0.41	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloroethane	ND		5.0	0.87	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloroform	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloromethane	2.7	J	5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
cis-1,3-Dichloropropene	ND		5.0	0.57	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Ethylbenzene	ND		5.0	0.46	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Methylene Chloride	ND		5.0	0.81	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Tetrachloroethene	ND		5.0	0.34	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Toluene	5.2		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
trans-1,2-Dichloroethane	ND		5.0	0.59	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Trichloroethene	ND		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Trichlorofluoromethane	ND		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Vinyl chloride	ND		5.0	0.75	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloroethane-d4	109 %		Surr Limits: (88-132%)				04/13/10 07:07	TRB	10D0944	624
4-Bromofluorobenzene	93 %		Surr Limits: (78-122%)				04/13/10 07:07	TRB	10D0944	624
Toluene-d8	93 %		Surr Limits: (87-110%)				04/13/10 07:07	TRB	10D0944	624

Acid and Base/Neutral Extractables by EPA Method 825

1,2,4-Trichlorobenzene	ND		9.8	0.48	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,2-Dichlorobenzene	ND		9.8	0.14	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,2-Diphenylhydrazine	ND		9.8	0.062	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,3-Dichlorobenzene	ND		9.8	0.067	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,4-Dichlorobenzene	ND		9.8	0.088	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4,6-Trichlorophenol	ND		4.9	0.23	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dichlorophenol	ND		4.9	0.29	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dimethylphenol	0.15	J	4.9	0.13	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dinitrophenol	ND		9.8	0.62	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dinitrotoluene	ND		4.9	0.26	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,6-Dinitrotoluene	ND		4.9	0.70	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Chloronaphthalene	ND		4.9	0.066	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Chlorophenol	ND		4.9	0.15	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Nitrophenol	ND		4.9	0.14	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

www.testamericainc.com

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

MAR - 8 2012

Mr. Mark Risley
Highway Superintendent
Town of Gerry
P.O. Box 15
Gerry, NY 14740

Dear Mr. Risley:

Re: Brine Bud # **B037-11** – BUD Modification

We have reviewed your request submitted on February 8, 2012 to continue the beneficial use of brine as part of your deicing system for an additional twenty (20) applications during the remainder of the winter season for a total maximum of forty (40) brine applications on any one section of road. This use is approved pursuant to 6 NYCRR 360-1.15(d) and as in the original beneficial use approval dated November 3, 2011, in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- Town of Gerry vehicles that apply brine supplied from storage tanks shared with the Chautauqua County Highway Department do not require a Part 364 permit, as long as vendor vehicles transporting brine to the tanks have a valid permit and these storage tanks are listed as destination facilities on the permit.
- Deicing activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied within 50 feet of any stream, creek, lake or other body of water or in a manner that could cause brine to flow or run off into streams, creeks, lakes and other bodies of water.
- Brine is approved for road spreading use on the roads listed in your October 27, 2011 petition.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

Stephen Condon - Town of Gerry extra brine

From: "Mark Risley" <mrисley@windstream.net>
To: "Steven Condon" <scondon@gw.dec.state.ny.us>
Date: 2/8/2012 10:36 AM
Subject: Town of Gerry extra brine

Town of Gerry

4675 Rt. 60 P.O. Box 15
Gerry, New York 14740
716-985-4570

February 8, 2012

Mr. Steven Condon
NYSDEC
9th Floor, 625 Broadway
Albany, NY 12233-7253

Dear Mr. Condon:

As per our discussion this morning I am requesting permission to continue to spread brine on the Town of Gerry roads. Your original BUD letter had a limit of twenty applications per season and we are nearing that limit this season. I would think another twenty applications (40 total) should be sufficient for this season. Following is a portion of the original letter I sent minus the map, chemical analysis, and the two storage locations. I would be happy to supply those again if needed. I am also going to send you a picture of the spreader bars on the trucks as per your request. The spreader bar on the pickup is 40" long. A longer bar on this truck interferes with the step to safely climb into the truck. We tried putting it under the step, but it's too low and gets torn off. Let me know if that's not OK and I'll try something different. Let me know if you need my signature and I'll sent it by mail.

I am the Highway Superintendent for the Town of Gerry and am seeking approval to use salt brine for ice control on the towns paved roads. The Town of Gerry does not use straight salt for deicing, but a mixture of 6:1 sand and salt mix. The Town of Gerry has 35 miles of roads with approximately 33 miles of which are paved. These 33 miles are the ones that I am seeking permission to use salt brine on. The use of salt brine on our roads will make traveling along these routes safer in the winter. The brine is free to the Town and constitutes a great savings to the taxpayers of the Town if we are allowed to use this product for that purpose.

We have two trucks designated for spreading brine in the winter. A 1997 Chevy K2500 with a 400

gallon tank and a 2000 International dump with a 1300 gallon tank. We use a 4' spreader bar on the trucks with in cab controls along with an emergency shut-off on the rear of the tank to prevent run off from the brine. All best management practices will be implemented to reduce any runoff of the brine into any water bodies. We do not intent to use brine to completely bare the roads, but use just enough to bare the centerline for safe travel. We will apply the brine at a rate of 120 gallons per mile or less as needed for the conditions at the time. We will spread the brine only during daylight hours except when road conditions arise that would make waiting until daylight hours detrimental to the traveling public's safety. As Highway Superintendent; I am in favor of the use of brine because of the effectiveness of this product to control ice on the Town roads. If you have any questions you can reach me on my cell phone which is the best way to contact me.

Thank you for your assistance in this matter.

Regards,

Mark A. Risley
Highway Superintendent
Town of Gerry
P.O. Box 15 Gerry, N.Y. 14740
716-985-4570
716-397-2511 cell

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

NOV - 3 2011

Mr. Mark Risley
Highway Superintendent
Town of Gerry
P.O. Box 15
Gerry, NY 14740

Dear Mr. Risley:

Re: Brine Bud # B037-11 – Deicing Agent

We have reviewed the information submitted in your October 27, 2011 petition for the proposed beneficial use of brine from brine tanks shared with the Chautauqua County Highway Department located in Gerry and Sinclairville, New York as part of your deicing system. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- Town of Gerry vehicles that apply brine supplied from storage tanks shared with the Chautauqua County Highway Department do not require a Part 364 permit, as long as vendor vehicles transporting brine to the tanks have a valid permit and these storage tanks are listed as destination facilities on the permit.
- Deicing activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied within 50 feet of any stream, creek, lake or other body of water or in a manner that could cause brine to flow or run off into streams, creeks, lakes and other bodies of water.
- Brine is approved for road spreading use on the roads listed in your October 27, 2011 petition. Brine may be applied a maximum of twenty times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

Town of Gerry

4675 Rt. 60 P.O. Box 15
Gerry, New York 14740
716-985-4570

October 27, 2011

Mr. Steven Condon
NYSDEC
9th Floor, 625 Broadway
Albany, NY 12233-7253

RECEIVED
NYSDEC

OCT 31 2011

DIVISION OF
MATERIALS MANAGEMENT

Dear Mr. Condon:

I am the Highway Superintendent for the Town of Gerry and am seeking approval to use salt brine for ice control on the towns paved roads. The Town of Gerry does not use straight salt for deicing, but a mixture of 6:1 sand and salt mix. The Town of Gerry has 35 miles of roads with approximately 33 miles of which are paved. These 33 miles are the ones that I am seeking permission to use salt brine on. The use of salt brine on our roads will make traveling along these routes safer in the winter. The brine is free to the Town and constitutes a great savings to the taxpayers of the Town if we are allowed to use this product for that purpose.

Enclosed is a map with the roads that will be receiving brine. Some of our roads do have a grade of 10 percent or more and we will be extra cautious on these roads to prevent any run-off of the brine.

I have provided the Chemical analysis that the County provided to me from their supplier.

I have also provided a list with the two locations we will be getting the brine from. Both locations have diking systems in place. We use the same brine as the Chautauqua County DPW. The County takes care of the filling of the tanks from suppliers that meet their specifications for good quality brine.

We have two trucks designated for spreading brine in the winter. A 1997 Chevy K2500 with a 400 gallon tank and a 2000 International dump with a 1300 gallon tank. We use a 4' spreader bar on the trucks with in cab controls along with an emergency shut-off on the rear of the tank to prevent run off from the brine. All best management practices will be implemented to reduce any runoff of the brine into any water bodies. We do not intent

TANK SITE	LOCATION CR. # & NAME	CAPACITY	QTY	VENDOR	PHONE #
BOOMERTOWN	Intersection of CR. #322 Backer St. & Wetman Road	20,000 & 18,600	2	LEE TAR	269-9279
CARROLL	Town of Carroll 1 mile north of Frewsburg on Wahtgren Road	19,600 & 16,200	2	DLH	410-2543
CHERRY CREEK	1 mile west of State Route #63 on Cr. #29 on the right in Gravel Driveway.	18,600 & 15,000	2	FOX	864-4043
CLYMER	Town of Clymer Town Barns State Route #474	19,800	1	SENECA RESOURCES	988-3388
DUNKIRK WEST	Town of Dunkirk Town Barns on Co. Rt #29 on the right in Gravel driveway	18,700	1	COTTON	672-2788
ELLERY	Landfill	19,991	1	DLH	410-1543
ELLINGTON	Town Barn Rt. #82	19,980	1	TRIPLE C	792-4844
ELM TREE	Intersection CR. #316 & CR. #76 near Expressway Exit	19,900	1	LEE TAR	269-9279
FALCONER	Chautauqua Co. DPF shop Plant #3 off E. Mosher St.	19,776 & 10,000	2		
FORESTVILLE	On Walnut Rd. 1 mile north of State Route #39 in Forestville	20,345	1	TRIPLE C	792-4844
GERRY	Town of Gerry Town Barns north out of Gerry on St. Rte #60	19,877	1	TRIPLE C - Ron Cunningham	792-4844
HARMONY	Town of Harmony Town Barns at Watts Flats on Cr. #58	19,800	1	LEE TAR	269-9279
HARTFIELD	1/4 mile north of Cr #127 on Cr. #308 across from Hartfield Airport	20,000	1	TRIPLE C	792-4844
KELLY'S CORNER	Intersection of Cr. #70 Rte #380 & Bear Lake Road	19,997	1	TRIPLE C	792-4844
PENNHOLLOWS	Intersection fo CR. #326 & CR #312	20,674	1	COTTON	672-2788
SHERIDAN	Chautauqua Co. DPF shop Middle Road CR #121M next to Dunkirk Airport	24,991	2	ST. GEORGE	640-7760
SHERMAN	Chautauqua Co. DPF shop intersection State Route 430 & CR #302	20,000 & 14,700	2	RANGE RESOURCES	753-3385 326-3906
SINCLAIRVILLE	300 Ft. west of CR #49 on CR #133 Old State Route #60	19,997	1	TRIPLE C - Ron Cunningham	/work 792-4844
SOUTH DAYTON	Intersection of CR #30 & Flicker Hill Rd	19,971	1	FOX	864-4043
BUSTI	3490 LAWSON ROAD	19,990	1		

TWO LOCATIONS we will get Brine From

Revised:

February 20, 2009

Microbac Laboratories, Inc.

ERIE DIVISION

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ERIE, PA 16509

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CHERI BROLASKI, LABORATORY DIRECTOR

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PRELIMINARY CERTIFICATE OF ANALYSIS

S. ST. GEORGE ENTERPRISES INC.
3689 WEBSTER ROAD
FREDONIA, NY 14063

Date Reported
Date Received 1/22/2010
Order Number 1001-03777
Invoice No.
Cust # 019448
Sampler AMF

Permit No.
Cust P.O.

SUBJECT: SAMPLES FOR ANALYSIS

TEST	METHOD	RESULT	UNITS	ANALYSIS		
				DATE	TIME	TECH ACCRED.

001. RICHTER BRINE WATER

Date Sampled: 1/21/2010

Time Sampled: 2:15 pm

Metals By ICP	EPA 200.7			2/2/2010	15:09	MWR	
Cadmium	EPA 200.7	<0.050	mg/L	2/2/2010	15:09	MWR	%
Chromium	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	%
Copper	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	%
Lead	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	%
Nickel	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	%
Silver	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	%
Zinc	EPA 200.7	0.278	mg/L	2/2/2010	15:09	MWR	%
Mercury	SM 3112 B	<0.002	mg/L	1/29/2010	11:17	BJJ	%

002. RICHTER BRINE WATER

Date Sampled: 1/21/2010

Time Sampled: 2:15 pm

Pesticide, Organochlorin, PCB	EPA 608			2/5/2010	17:05	DJS	
Alpha BHC	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
gamma BHC (Lindane)	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Beta BHC	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Heptachlor	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Delta BHC	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Aldrin	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Heptachlor Epoxide	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Endosulfan I	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
4,4'-DOE	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Dieldrin	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Endrin	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
4,4'-DDD	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Endosulfan II	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
4,4'-DDT	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Endrin Aldehyde	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Endosulfan Sulfate	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	%
Chlordane	EPA 608	<0.4	µg/L	2/5/2010	17:05	DJS	%
Toxaphene	EPA 608	<0.4	µg/L	2/5/2010	17:05	DJS	%
PCB-1016	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	%

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Cust # 019448
Sampler AMF

Permit No.
Cust P.O.

SUBJECT: SAMPLES FOR ANALYSIS

TEST	METHOD	RESULT	UNITS	ANALYSIS DATE	TIME	TECH	ACCRED.
------	--------	--------	-------	---------------	------	------	---------

002. **RICHTER BRINE WATER**
Date Sampled: 1/21/2010

Time Sampled: 2:15 pm

.....continued							
PCB-1221	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	%
PCB-1232	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	%
PCB-1242	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	%
PCB-1248	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	%
PCB-1254	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	%
PCB-1260	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	%

003. **RICHTER BRINE WATER**
Date Sampled: 1/21/2010

Time Sampled: 2:15 pm

Volatile Organics	EPA 624			1/27/2010	9:26	JFR	
Acrolein	EPA 624	<50	µg/L	1/27/2010	9:26	JFR	%
Acrylonitrile	EPA 624	<50	µg/L	1/26/2010	8:48	JFR	%
Benzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
Bromodichloromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
Bromoform	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
Bromomethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
Carbon Tetrachloride	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
Chlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
Chloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
2-Chloroethyl Vinyl Ether	EPA 624	<5	µg/L	1/25/2010	8:48	JFR	%
Chloroform	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
Chloromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
Dibromochloromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
1,2-Dichlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
1,3-Dichlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
1,4-Dichlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
1,1-Dichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
Dichlorodifluoromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
1,2-Dichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
1,1-Dichloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%
Trans-1,2-Dichloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%



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S. ST. GEORGE ENTERPRISES INC.
3689 WEBSTER ROAD
FREDONIA, NY 14063

Date Reported
Date Received 1/22/2010
Order Number 1001-03777
Invoice No.
Cust # 019448
Sampler AMF

Permit No.
Cust P.O.

SUBJECT: SAMPLES FOR ANALYSIS

TEST	METHOD	RESULT	UNITS	ANALYSIS DATE	TIME	TECH	ACCRED.
003 RICHTER BRINE WATER							
Date Sampled: 1/21/2010		Time Sampled: 2:15 pm					
...continued							
1,2-Dichloropropane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
cis-1,3-Dichloropropene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Trans-1,3-Dichloropropene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Ethyl Benzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Methylene Chloride	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
1,1,2,2-Tetrachloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Tetrachloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Toluene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
1,1,1-Trichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
1,1,2-Trichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Trichloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Trichlorofluoromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Vinyl Chloride	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Xylenes	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Acetone	EPA 624	<15	µg/L	1/26/2010	8:48	JFR	☺
2-Hexanone	EPA 624	431	µg/L	1/26/2010	8:48	JFR	☺
Methyl Ethyl Ketone	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Methyl Isobutyl Ketone	EPA 624	<100	µg/L	1/27/2010	9:26	JFR	☺
Methyl-Tert-Butyl Ether	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
Naphthalene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☺
cis-1,2-Dichloroethylene	EPA 624	<5	µg/L	1/27/2010	9:26	JFR	☺
		<5	µg/L	1/26/2010	8:48	JFR	☺

04 RICHTER BRINE WATER

Date Sampled: 1/21/2010		Time Sampled: 2:15 pm			
Base Neutrals (NYS)	EPA 1984 625		ppb	2/5/2010	6:12 OST
Acanaphthene	EPA 625	<10	µg/L	2/5/2010	6:12 OST
Anthracene	EPA 625	<10	µg/L	2/5/2010	6:12 OST
Benzo(A)Anthracene	EPA 625	<10	µg/L	2/5/2010	6:12 OST
Benzo(B)Fluoranthene	EPA 625	<10	µg/L	2/5/2010	6:12 OST
Benzo(K)Fluoranthene	EPA 625	<10	µg/L	2/5/2010	6:12 OST
Benzo(A)Pyrene	EPA 625	<10	µg/L	2/5/2010	6:12 OST



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TEST	METHOD	RESULT	UNITS	ANALYSIS		TECH	ACCRED.
				DATE	TIME		
004 RICHTER BRINE WATER							
.....continued							
Benzo(g,h,i)Perylene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Benzyl Butyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Bis(2-Chloroethyl)Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Bis(2-Chloroethoxy)Methane	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Bis(2-Ethylhexyl)Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Bis(2-Chloroisopropyl) Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
4-Bromophenyl Phenyl Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
2-Chloronaphthalene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
4-Chlorophenyl Phenyl Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Chrysene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Dibenzo(A,h)Anthracene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Di-N-Butyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
3,3'-Dichlorobenzidine	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Diethyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Dimethyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
2,4-Dinitrotoluene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
2,6-Dinitrotoluene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Di-N-Octyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Fluoranthene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Fluorene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Hexachlorobenzene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Hexachlorobutadiene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Hexachloroethane	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Hexachlorocyclopentadiene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Indeno(1,2,3-Cd)Pyrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Isophorone	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Naphthalene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Nitrobenzene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
N-Nitrosodi-N-Propylamine	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Phenanthrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Pyrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
1,2,4-Trichlorobenzene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	

Date Sampled: 1/21/2010

Time Sampled: 2:15 pm



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				DATE	TIME	TECH ACCRED.
004 RICHTER BRINE WATER						
Date Sampled: 1/21/2010				Time Sampled: 2:15 pm		
continued						
Date Of Extraction		020510		2/5/2010	6:12	OST
Sub 625Bn NYS		077061		1/25/2010	14:23	CMC
Acid Extractables (NYS)	EPA 625			2/5/2010	6:12	OST
4-Chloro-3-Methylphenol	EPA 625	<26	µg/L	2/5/2010	6:12	OST
2-Chlorophenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2,4-Dichlorophenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2,4-Dimethylphenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2,4-Dinitrophenol	EPA 625	<26	µg/L	2/5/2010	6:12	OST
2-Methyl-4,6-Dinitrophenol	EPA 625	<26	µg/L	2/5/2010	6:12	OST
2-Nitrophenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
4-Nitrophenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Pentachlorophenol	EPA 625	<26	µg/L	2/5/2010	6:12	OST
Phenol	EPA 625	<26	µg/L	2/5/2010	6:12	OST
2,4,6-Trichlorophenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Date Of Extraction		<10	µg/L	2/5/2010	6:12	OST
Sub 625NYS		2-5-2010		2/5/2010	6:12	OST
		077061		1/25/2010	15:00	CMC

THE TECH INITIALS "OST" (OUTSIDE TESTING) INDICATE THAT THE 625 ANALYSES WERE SUB-CONTRACTED TO MICROBAC NEW YORK DIVISION (W.O. 1001405).

105 RICHTER BRINE WATER

Date Sampled: 1/21/2010
EPA 120.2/420.4

Time Sampled: 2:15 pm
2/6/2010 13:31 OST
1/27/2010 13:57 CMC

Phenolics, Total		0.016	mg/L			
Sub Phenol		077016				

THE TECH INITIALS "OST" (OUTSIDE TESTING) INDICATE THAT THESE ANALYSES WERE SUB-CONTRACTED TO MICROBAC LABORATORIES, INC./CAMPHILL DIVISION, (W.O. 1001-02111).

06 RICHTER BRINE WATER

Date Sampled: 1/21/2010
EPA 1664A

Time Sampled: 2:15 pm
2/1/2010 7:00 CAP

TPH, Grav.		<5	mg/L			
------------	--	----	------	--	--	--



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NELAP accredited by PA, NY, Visit our website to view our current NELAP accreditation for various drinking water, wastewater and solid & chemical materials, air & emissions analysis



Microbac Laboratories, Inc.
 ERIE DIVISION
 1962 WAGER ROAD
 ERIE, PA 16509
 (814) 825-8333 FAX (814) 825-9254
 CHERI BROLASKI, LABORATORY DIRECTOR
 http://www.microbac.com E-Mail: eric@microbac.com

STATE CERT ID.
 25-067, 10121
 C-PA-05

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS
 WATER · AIR · WASTES · FOOD · PHARMACEUTICALS · NUTRACEUTICALS

PRELIMINARY CERTIFICATE OF ANALYSIS

S. ST. GEORGE ENTERPRISES INC.
 3689 WEBSTER ROAD
 PREDONIA, NY 14063

Date Reported
 Date Received 1/22/2010
 Order Number 1001-03777
 Invoice No.
 Cust # 019448
 Sampler AMF

Permit No.
 Cust P.O.

SUBJECT: SAMPLES FOR ANALYSIS

TEST	METHOD	RESULT	UNITS	ANALYSIS		TECH	ACCRED.
				DATE	TIME		
007 RICHTER BRINE WATER							
Date Sampled: 1/21/2010				Time Sampled: 2:15 pm			
Solids, Dissolved	SM 2540 C	289000	mg/L	1/28/2010	15:30	DS	% ◆
Solids, Suspended	SM 2540 D	94	mg/L	1/27/2010	14:00	DS	% ◆
Solids, Total	EPA 1979 160.3	303000	mg/L	1/22/2010	15:30	DS	% ◆
pH - Exceeds 45Min Hold Time	SM 4500-H+ B	5.3	Units	1/22/2010	14:00	DS	% ◆

Sample collected by Microbac personnel in accordance with the respective Microbac/Erie Sampling SOP for the Matrix

All samples received in proper condition and results conform to ISO 17025 unless otherwise noted

Accred.

- ⊗ This symbol at the end of the test line means the test analysis met the requirements of NELAC (PA ID 25-00067)
- ◆ This symbol at the end of the test line means the test analysis met the requirements of AIMA (ID 100386)
- ◆ This symbol at the end of the test line means the test analysis met the requirements of NY ELAP (NY ID 10121)

ABBREVIATIONS:

MG/KG	Micrograms per Kilogram (PPM)	Negative	Microbiological target analyte not detected
UG/L	Micrograms per Liter (PPM)	CFU	Colony Forming Unit
MG/KG	Micrograms per Kilogram (PPM)	ND	Not detected at or below the reporting limit
MG/L	Milligrams per Liter (PPM)	TIC	Yeast/Identified Compound
1000 UG	Micrograms per Liter (PPM)	+	Is this (also see "ND")
Positive	Microbiological target analyte detected	+	Greater than

For any feedback concerning our services, please contact Cheri Brolaski, Laboratory Director at cbrolaski@microbas.com or James Nokes, resident at president@microbac.com



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 USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research
 RELAP Accredited by NY State

MEMBER
 TOTAL P. 07

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

December 9, 2011

Mr. Timothy Timbrook
Acting Regional Director of Operations
NYSDOT Region 6
107 Broadway
Hornell, NY 14843

Dear Mr. Timbrook:

Re: Brine Bud # **B038-11** – Deicing agent

We have reviewed the information submitted in your December 1, 2011 petition for the proposed beneficial use of well brine from the National Fuel Gas Supply Corporation Beech Hill Station, Town of Independence, Allegany County, as part of your anti-icing/deicing system. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be applied to roads. Brine from Marcellus formation wells may not be used without additional analysis and approval.
- Vendor vehicles and/or NYSDOT vehicles transporting brine to your brine storage locations must have a valid Part 364 permit. NYSDOT Region 6 facilities must be the approved destinations under the Part 364 permit or upon the next Part 364 permit renewal. NYSDOT vehicles that apply brine supplied from your storage tanks do not require a Part 364 permit.
- Brine storage and deicing activities must be conducted in accordance with procedures described in your Beneficial Use Determination (BUD) petition and in a manner that prevents brine from flowing or running off into streams, creeks, lakes and other bodies of water and in accordance with NYSDOT Office of Operations Management Highway Maintenance Guidelines for Snow and Ice Control.
- An annual report must be filed by May 1 of each calendar year and must include the following:
 - a. The number of gallons of well production brine beneficially used under this determination as delivered to NYSDOT Region 6 facilities.
 - b. Analytical results from recent (calendar year) sampling of well production brine from the above source or sources.

Submissions should be sent to:

Stephen Condon
Bureau of Waste Reduction & Recycling
Division of Materials Management
NYSDEC
625 Broadway, 9th Floor
Albany, NY 12233-7253

The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

//S.R.//

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management



STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
REGION 6
107 BROADWAY
HORNELL, NY 14843
www.nysdot.gov

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DEC 4 2011

DIVISION OF
MATERIALS MANAGEMENT

BRIAN KELLY
ACTING REGIONAL DIRECTOR

JOAN MCDONALD
COMMISSIONER

December 1, 2011

Tom Lynch
Bureau of Solid Waste, Reduction & Recycling
Division of Solid & Hazardous Materials
NYS Department of Environmental Conservation
625 Broadway – 9th Floor
Albany, NY 12233-7253

Dear Mr. Lynch,

The New York State Department of Transportation (DOT), Transportation Maintenance Group in Region 6 is requesting a Beneficial Use Determination for the use of Brine from Natural Fuel Gas Supply Corporation as an anti-icing/de-icing agent to be placed on our roadways in the winter season. The material will be acquired from National Fuel Gas Supply Corporation, Beech Hill Station, Town of Independence, Allegany County. This material will be picked up at the facility by a DOT vehicle, and delivered to our facilities for storage. The attached maps have location for storage and where the material will be applied.

The Salt Brine will be stored in poly containers in the DOT yards. The tank will be behind a barrier for protection from traffic and will be labeled identifying its contents and amount. The Salt Brine will be applied using tandem axle dumps equipped with saddle tanks designed to apply liquid directly onto the salt being applied to the road. This in turn will allow us to reduce our granular application. The Salt Brine will be applied at the rate of 6-8 gallons per ton controlled through a Dicky John Control Automatic Controller. Application of material will be in accordance with NYSDOT Office of Operations management Highway Maintenance Guidelines for Snow and Ice Control.

If you have any questions or need additional information, please feel free to contact Sandra Rapp at (607) 324-8527.

Your help in this matter is greatly appreciated.

Sincerely,

Timothy Timbrook
Acting Regional Director of Operations
NYSDOT
107 Broadway
Hornell, NY 14843
607-324-8525

RESIDENCY AND SUB-HEADQUARTERS ADDRESSES

Locations of Brine Tanks

RESIDENCY 6-1 (Allegany West)

14 South Branch St., Friendship, NY 14739

Phone: 585-973-2171

Sub-Headquarters:

Caneadea – 9037 State Rt. 19, Caneadea, NY 14717

Phone: 585-365-2381

Wellsville: 2860 Andover Rd, Wellsville, NY 14895

Phone: 585-593-4286

West Almond (winter only)

2523 Karr Valley Rd., Almond, NY 14804

RESIDENCY 6-2 (E. Steuben & W. Chemung)

3863 Meads Creek Rd., Painted Post, NY 14870

Phone: 607-962-4639

Sub-Headquarters:

Kanona – 7909 State Rte. 53, Bath, NY 14810

Phone: 607-776-6212

Horseheads – 730 Chemung St., Horseheads, NY 14845

Phone: 607-739-6954

RESIDENCY 6-3 (Schuyler & Yates)

3545 Co. Rte. 16, Watkins Glen, NY 14891

Phone: 607-535-4992

Sub-Headquarters:

Penn Yan – 2400 State Rte. 14, Penn Yan, NY 14527

Phone: 315-536-4931

RESIDENCY 6-4 (E. Allegany & W. Steuben)

7100 Co. Rte. 70A, Hornell, NY 14843

Phone: 607-324-6010

Sub-Headquarters:

Jasper – 3407 State Route 36, Jasper, NY 14855



Phone: 607-792-3387

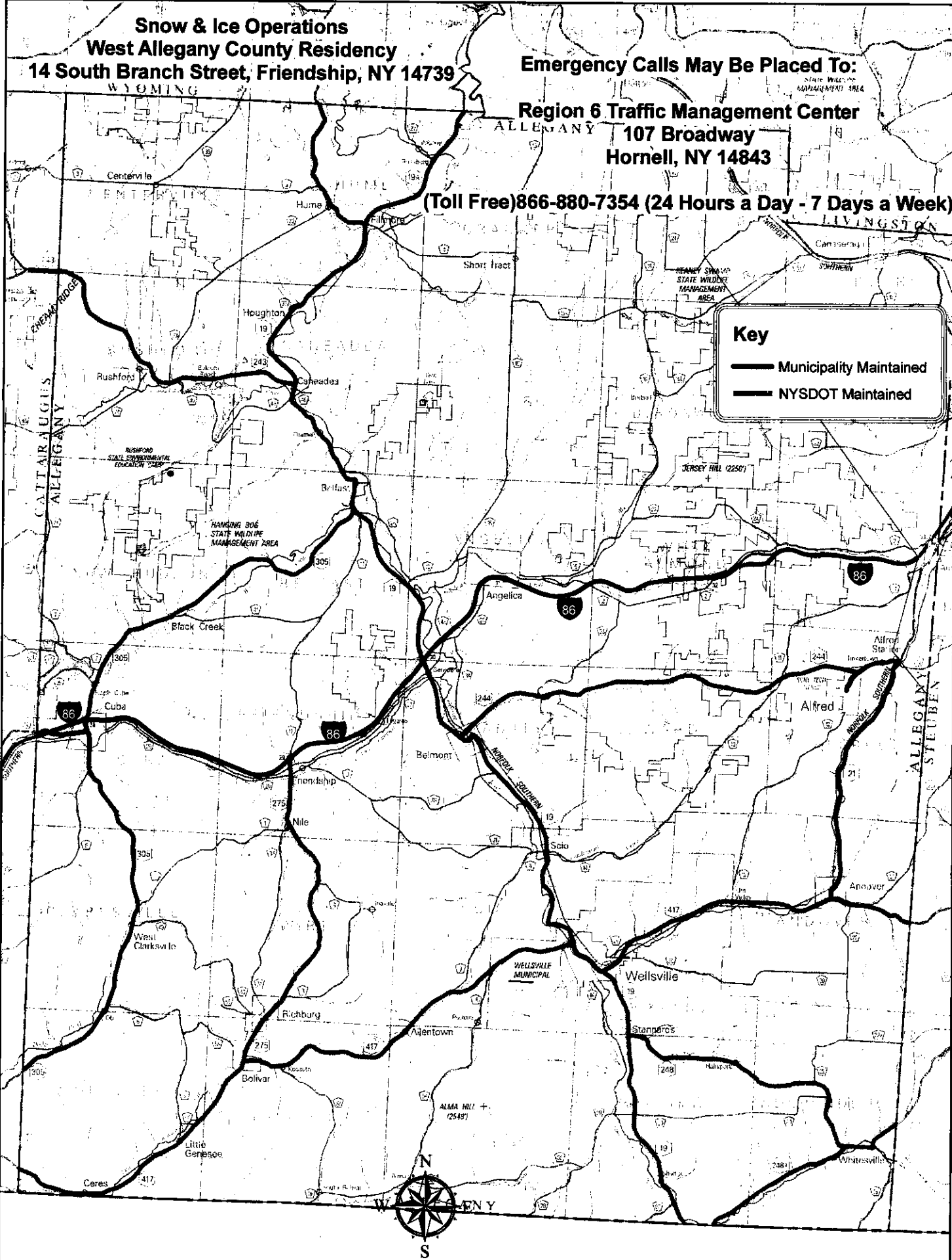
**Snow & Ice Operations
West Allegany County Residency**
14 South Branch Street, Friendship, NY 14739

Emergency Calls May Be Placed To:
Region 6 Traffic Management Center
107 Broadway
Hornell, NY 14843

(Toll Free) 866-880-7354 (24 Hours a Day - 7 Days a Week)

Key

-  Municipality Maintained
-  NYS DOT Maintained

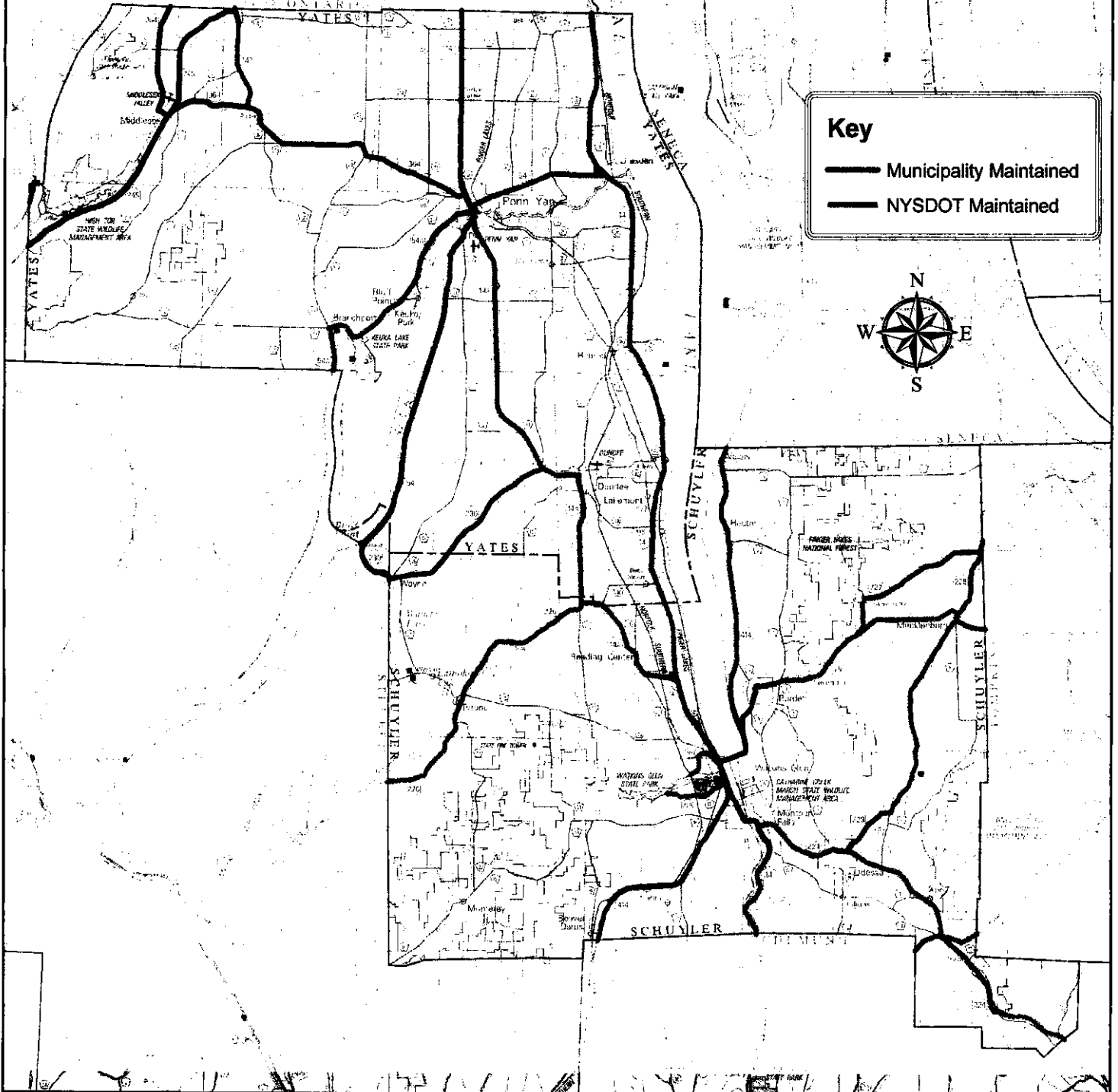


**Snow & Ice Operations
Schuyler and Yates Counties Residency
3545 County Route 16, Watkins Glen, NY 14891**

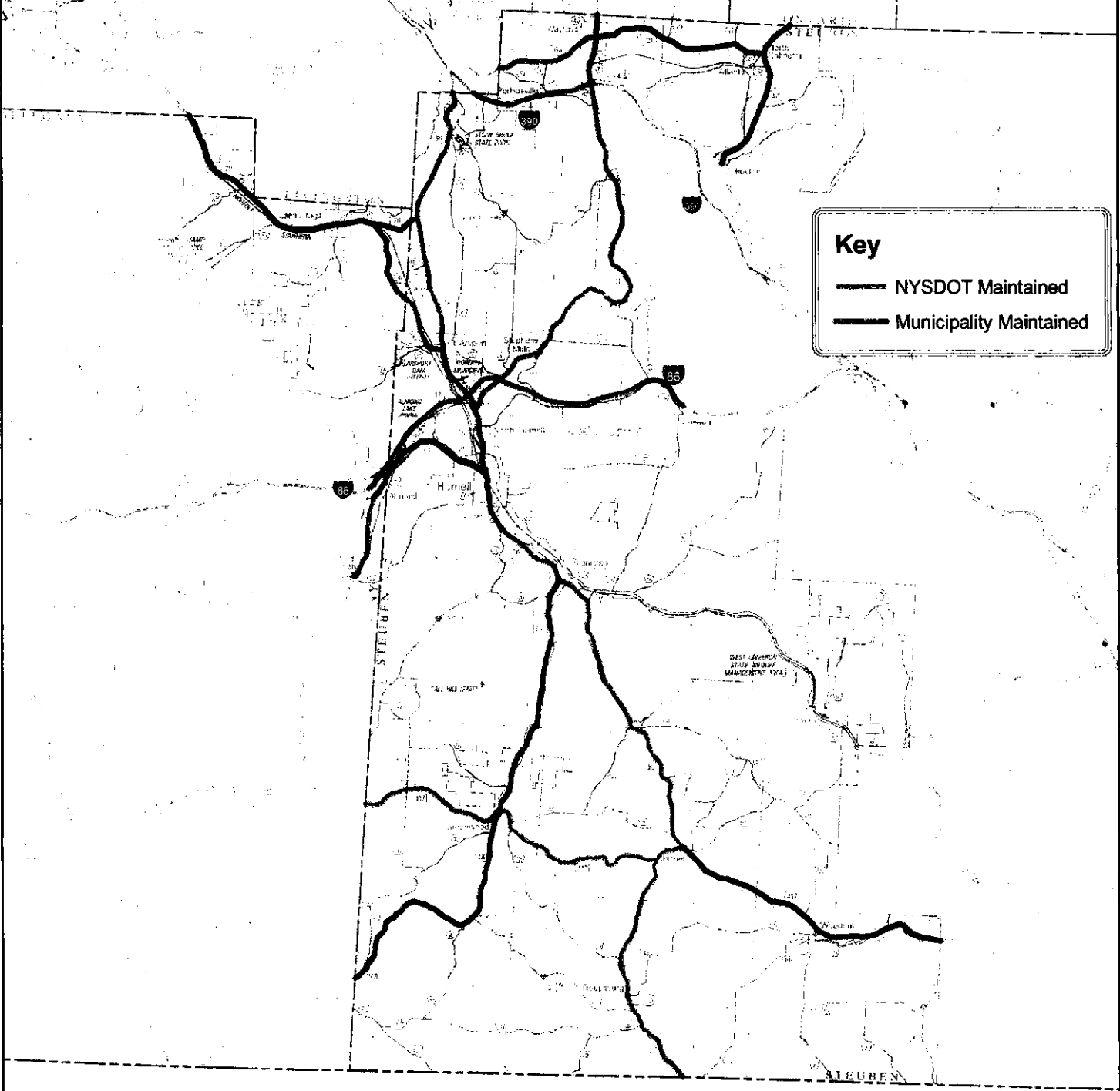
Emergency Calls May be Placed To:

**Region 6 Traffic Management Center
107 Broadway
Hornell, NY 14843**

(Toll Free)866-880-7354 (24 Hours a Day-7 Days a Week)



**Snow & Ice Operations
East Allegany & West Steuben Counties Residency
7100 County Route 70A, Hornell, NY 14843**



Emergency Calls May be Placed To:

**Region 6 Traffic Management Center
107 Broadway
Hornell, NY 14843**



(Toll Free) 866-880-7354 (24 Hrs a day - 7 Days a Week)

Detection Summary

Client: National Fuel Gas Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-3533-1

Client Sample ID: BRINE

Lab Sample ID: 480-3533-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	36		5.0	0.60	ug/L	1			624	Total/NA
Toluene	4.3	J	5.0	0.45	ug/L	1			624	Total/NA
Bis(2-ethylhexyl) phthalate	2.5	J	9.5	0.82	ug/L	1			625	Total/NA
Phenol	5.1		4.8	0.12	ug/L	1			625	Total/NA
Arsenic	0.046		0.020	0.011	mg/L	1			200.7 Rev 4.4	Total/NA
Cadmium	0.0063		0.0020	0.00066	mg/L	1			200.7 Rev 4.4	Total/NA
Calcium	40400		100	20.0	mg/L	100			200.7 Rev 4.4	Total/NA
Lead	0.027		0.010	0.0060	mg/L	1			200.7 Rev 4.4	Total/NA
Magnesium	4400		2.0	0.43	mg/L	5			200.7 Rev 4.4	Total/NA
Nickel	0.011	J	0.020	0.0025	mg/L	1			200.7 Rev 4.4	Total/NA
Sodium	46100		200	64.8	mg/L	100			200.7 Rev 4.4	Total/NA
Zinc	0.041		0.020	0.0034	mg/L	1			200.7 Rev 4.4	Total/NA
Phenolics, Total Recoverable	0.016		0.010	0.0050	mg/L	1			420.4	Total/NA
Halogens, Total Organic	613	B	20.0	6.5	ug/L	1			9020	Total/NA
Total Organic Carbon	137		40.0	17.4	mg/L	40			9060	Total/NA
Total Dissolved Solids	48000		2000	800	mg/L	1			SM 2540C	Total/NA
Chloride	229000	^	12100	5570	mg/L	12100			SM 4500 Cl- E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	19600		1.00	1.00	umhos/cm	1			120.1	Total/NA
pH	5.71	H	0.100	0.100	SU	1			9040B	Total/NA

5



State of New York
Department of Transportation
107 Broadway
Region Six
Hornell, New York 14843
www.dot.ny.gov

BRIAN C. KELLY, P.E.
ACTING REGIONAL DIRECTOR

JOAN McDONALD
COMMISSIONER

April 4, 2012

Stephen Condon
Bureau of Waste Reduction & Recycling
Division of Materials Management
NYSDEC
625 Broadway, 9th Floor
Albany, NY 12233-7253

RE: Brine BUD #B038-11 Deicing Agent

Dear Mr. Condon:

Please find the attached information for annual report Brine BUD #B038-11 – Deicing Agent.

- A. Number of gallons of well production brine beneficially used under this determination delivered to NYSDOT Region 6 facilities.
- B. Analytical results from recent sampling of well production brine from the well source.

If you have any questions or comments, please contact me at 607-324-8525.

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy P. Timbrook".

Timothy P. Timbrook
Acting Regional Director of Operations

TPT:SR:ds

Attachments

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APR 06 2012

DIRECTOR'S OFFICE
DIV. OF MATERIALS MANAGEMENT

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	53		5.0	0.60	ug/L			02/20/12 15:09	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 15:09	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 15:09	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 15:09	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 15:09	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 15:09	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 15:09	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 15:09	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 15:09	1
Chloromethane	2.8	J	5.0	0.64	ug/L			02/20/12 15:09	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 15:09	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 15:09	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 15:09	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 15:09	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 15:09	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 15:09	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 15:09	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 15:09	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 15:09	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 15:09	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 15:09	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 15:09	1
Toluene	11		5.0	0.45	ug/L			02/20/12 15:09	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 15:09	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 15:09	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 15:09	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 15:09	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 15:09	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 15:09	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 15:09	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		72 - 130		02/20/12 15:09	1
4-Bromofluorobenzene (Surr)	98		69 - 121		02/20/12 15:09	1
Toluene-d8 (Surr)	99		70 - 123		02/20/12 15:09	1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.059	ug/L		02/20/12 10:21	02/21/12 12:15	1
Acenaphthylene	ND		5.0	0.034	ug/L		02/20/12 10:21	02/21/12 12:15	1
Anthracene	ND		5.0	0.052	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzidine	ND		79	2.5	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[a]anthracene	0.30	J B	5.0	0.043	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[a]pyrene	ND		5.0	0.057	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[b]fluoranthene	ND		5.0	0.061	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[g,h,i]perylene	ND		5.0	0.099	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[k]fluoranthene	ND		5.0	0.041	ug/L		02/20/12 10:21	02/21/12 12:15	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		02/20/12 10:21	02/21/12 12:15	1
Bis(2-chloroethoxy)methane	ND		5.0	0.084	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,2'-oxybis[1-chloropropane]	ND		5.0	0.085	ug/L		02/20/12 10:21	02/21/12 12:15	1

6

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE
 Date Collected: 02/17/12 01:20
 Date Received: 02/17/12 15:50

Lab Sample ID: 480-16320-1
 Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.93	J B	9.9	0.85	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Chloronaphthalene	ND		5.0	0.067	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L		02/20/12 10:21	02/21/12 12:15	1
Chrysene	0.28	J B	5.0	0.035	ug/L		02/20/12 10:21	02/21/12 12:15	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		02/20/12 10:21	02/21/12 12:15	1
Di-n-butyl phthalate	ND		5.0	0.93	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2-Dichlorobenzene	ND		9.9	0.14	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,3-Dichlorobenzene	ND		9.9	0.068	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,4-Dichlorobenzene	ND		9.9	0.089	ug/L		02/20/12 10:21	02/21/12 12:15	1
3,3'-Dichlorobenzidine	ND		5.0	0.81	ug/L		02/20/12 10:21	02/21/12 12:15	1
Diethyl phthalate	ND		5.0	0.17	ug/L		02/20/12 10:21	02/21/12 12:15	1
Dimethyl phthalate	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,6-Dinitrotoluene	ND		5.0	0.71	ug/L		02/20/12 10:21	02/21/12 12:15	1
Di-n-octyl phthalate	ND		5.0	4.4	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2-Diphenylhydrazine	ND		9.9	0.062	ug/L		02/20/12 10:21	02/21/12 12:15	1
Fluoranthene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
Fluorene	ND		5.0	0.042	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorobenzene	ND		5.0	0.27	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorobutadiene	ND		5.0	0.61	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachloroethane	ND		5.0	0.48	ug/L		02/20/12 10:21	02/21/12 12:15	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.18	ug/L		02/20/12 10:21	02/21/12 12:15	1
Isophorone	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 12:15	1
Naphthalene	0.32	J	5.0	0.079	ug/L		02/20/12 10:21	02/21/12 12:15	1
Nitrobenzene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodimethylamine	ND		9.9	0.95	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodiphenylamine	ND		5.0	0.39	ug/L		02/20/12 10:21	02/21/12 12:15	1
Phenanthrene	ND		5.0	0.070	ug/L		02/20/12 10:21	02/21/12 12:15	1
Pyrene	0.13	J	5.0	0.040	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2,4-Trichlorobenzene	ND		9.9	0.49	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Chloro-3-methylphenol	ND		5.0	0.55	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Chlorophenol	ND		5.0	0.15	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dichlorophenol	0.39	J	5.0	0.30	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dimethylphenol	0.57	J	5.0	0.13	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dinitrophenol	ND		9.9	0.83	ug/L		02/20/12 10:21	02/21/12 12:15	1
4,6-Dinitro-2-methylphenol	ND		9.9	0.75	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Nitrophenol	ND		5.0	0.14	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Nitrophenol	ND		9.9	1.3	ug/L		02/20/12 10:21	02/21/12 12:15	1
Pentachlorophenol	ND		9.9	0.41	ug/L		02/20/12 10:21	02/21/12 12:15	1
Phenol	25		5.0	0.12	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 12:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	112		52 - 151	02/20/12 10:21	02/21/12 12:15	1
2-Fluorobiphenyl	84		44 - 120	02/20/12 10:21	02/21/12 12:15	1
2-Fluorophenol	70		17 - 120	02/20/12 10:21	02/21/12 12:15	1
Nitrobenzene-d5	90		42 - 120	02/20/12 10:21	02/21/12 12:15	1

6

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5	86		10 - 120	02/20/12 10:21	02/21/12 12:15	1
p-Terphenyl-d14	26		22 - 125	02/20/12 10:21	02/21/12 12:15	1

6

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.25	0.032	ug/L		02/22/12 07:58	02/24/12 18:11	5
alpha-BHC	ND		0.25	0.032	ug/L		02/22/12 07:58	02/24/12 18:11	5
beta-BHC	ND		0.25	0.12	ug/L		02/22/12 07:58	02/24/12 18:11	5
delta-BHC	ND		0.25	0.049	ug/L		02/22/12 07:58	02/24/12 18:11	5
gamma-BHC (Lindane)	ND		0.25	0.029	ug/L		02/22/12 07:58	02/24/12 18:11	5
Chlordane (technical)	ND		2.5	0.14	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDD	ND		0.25	0.045	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDE	ND		0.25	0.057	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDT	ND		0.25	0.054	ug/L		02/22/12 07:58	02/24/12 18:11	5
Dieldrin	ND		0.25	0.048	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan I	ND		0.25	0.054	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan II	ND		0.25	0.059	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan sulfate	ND		0.25	0.077	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endrin	ND		0.25	0.068	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endrin aldehyde	ND		0.25	0.080	ug/L		02/22/12 07:58	02/24/12 18:11	5
Heptachlor	ND		0.25	0.042	ug/L		02/22/12 07:58	02/24/12 18:11	5
Heptachlor epoxide	ND		0.25	0.026	ug/L		02/22/12 07:58	02/24/12 18:11	5
Toxaphene	ND		2.5	0.59	ug/L		02/22/12 07:58	02/24/12 18:11	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	15 - 125	02/22/12 07:58	02/24/12 18:11	5
Tetrachloro-m-xylene	0	X	36 - 121	02/22/12 07:58	02/24/12 18:11	5

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1221	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1232	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1242	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1248	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1254	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1260	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1262	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1268	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		10 - 158	02/21/12 07:54	02/21/12 18:28	1
Tetrachloro-m-xylene	90		18 - 146	02/21/12 07:54	02/21/12 18:28	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.040	0.014	mg/L		02/22/12 08:15	02/22/12 18:17	1
Arsenic	ND		0.020	0.011	mg/L		02/22/12 08:15	02/22/12 18:17	1
Beryllium	ND		0.0040	0.00060	mg/L		02/22/12 08:15	02/22/12 18:17	1
Cadmium	ND		0.0020	0.00066	mg/L		02/22/12 08:15	02/22/12 18:17	1
Calcium	48800		50.0	10.0	mg/L		02/22/12 08:15	02/24/12 23:18	50
Chromium	0.0025	J	0.0080	0.0017	mg/L		02/22/12 08:15	02/22/12 18:17	1

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Date Collected: 02/17/12 01:20

Date Received: 02/17/12 15:50

Lab Sample ID: 480-16320-1

Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.020	0.0030	mg/L		02/22/12 08:15	02/22/12 18:17	1
Lead	ND		0.50	0.30	mg/L		02/22/12 08:15	02/29/12 22:49	50
Magnesium	5220		4.0	0.87	mg/L		02/22/12 08:15	02/24/12 23:11	10
Nickel	0.013	J	0.020	0.0025	mg/L		02/22/12 08:15	02/22/12 18:17	1
Selenium	ND		0.30	0.17	mg/L		02/22/12 08:15	02/24/12 23:11	10
Silver	ND		0.060	0.034	mg/L		02/22/12 08:15	02/24/12 23:11	10
Sodium	6450	B	2.0	0.65	mg/L		02/22/12 08:15	02/22/12 18:17	1
Thallium	ND		0.040	0.020	mg/L		02/22/12 08:15	02/22/12 18:17	1
Zinc	0.11		0.020	0.0034	mg/L		02/22/12 08:15	02/22/12 18:17	1

6

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0010	0.00060	mg/L		02/20/12 09:05	02/20/12 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	330		4.8	1.3	mg/L		02/21/12 15:10	02/21/12 15:18	1
Cyanide, Total	ND	*	0.010	0.0050	mg/L		02/20/12 17:00	02/21/12 15:00	1
Phenolics, Total Recoverable	0.069	B	0.050	0.025	mg/L		02/20/12 19:46	02/25/12 10:40	5
Halogens, Total Organic	39000		4000	1300	ug/L			02/27/12 07:29	1
Total Organic Carbon	1.9		1.0	0.43	mg/L			03/03/12 18:28	1
Total Dissolved Solids	217000		2000	800	mg/L			02/22/12 19:10	1
Chloride	209000		6050	2780	mg/L			02/20/12 23:36	6050
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	19300		1.00	1.00	umhos/cm			02/21/12 09:56	1
pH	4.81		0.100	0.100	SU			02/17/12 19:28	1

Client Sample ID: TRIP BLANK

Date Collected: 02/17/12 01:20

Date Received: 02/17/12 15:50

Lab Sample ID: 480-16320-2

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	0.60	ug/L			02/20/12 15:32	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 15:32	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 15:32	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 15:32	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 15:32	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 15:32	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 15:32	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 15:32	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 15:32	1
Chloromethane	ND		5.0	0.64	ug/L			02/20/12 15:32	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 15:32	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 15:32	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 15:32	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 15:32	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 15:32	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 15:32	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 15:32	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 15:32	1

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 15:32	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 15:32	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 15:32	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 15:32	1
Toluene	ND		5.0	0.45	ug/L			02/20/12 15:32	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 15:32	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 15:32	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 15:32	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 15:32	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 15:32	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 15:32	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 15:32	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 15:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		72 - 130					02/20/12 15:32	1
4-Bromofluorobenzene (Surr)	100		69 - 121					02/20/12 15:32	1
Toluene-d8 (Surr)	100		70 - 123					02/20/12 15:32	1

6

RESIDENCY AND SUB-HEADQUARTERS ADDRESSES

Brine Delivered from January 12-February 8 2012

RESIDENCY 6-1 (Allegany West)

14 South Branch St., Friendship, NY 14739

9535 gallons delivered

Sub-Headquarters:

Caneadea – 9037 State Rt. 19, Caneadea, NY 14717

5011 gallons delivered

Wellsville: 2860 Andover Rd, Wellsville, NY 14895

4600 gallons delivered

West Almond (winter only)

2523 Karr Valley Rd., Almond, NY 14804

RESIDENCY 6-2 (E. Steuben & W. Chemung)

3863 Meads Creek Rd., Painted Post, NY 14870

4000 Gallons delivered

Sub-Headquarters:

Kanona – 7909 State Rte. 53, Bath, NY 14810

3800 Gallons Delivered

Horseheads – 730 Chemung St., Horseheads, NY 14845

7433 Gallons Delivered

RESIDENCY 6-3 (Schuyler & Yates)

3545 Co. Rte. 16, Watkins Glen, NY 14891

4571 Gallons delivered

Sub-Headquarters:

Penn Yan – 2400 State Rte. 14, Penn Yan, NY 14527

2500 Gallons delivered

RESIDENCY 6-4 (E. Allegany & W. Steuben)

7100 Co. Rte. 70A, Hornell, NY 14843

Sub-Headquarters:

Jasper – 3407 State Route 36, Jasper, NY 14855

1948 gallons delivered

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

December 13, 2011

Mr. David Tackley Jr.
Operations Environmental Coordinator
NYSDOT Operations - Region 5
100 Seneca Street
Buffalo, NY 14203

Dear Mr. Tackley:

Re: Brine Bud # **B039-11** – Deicing agent

We have reviewed the information submitted in your November 29, 2011 petition for the proposed beneficial use of well brine from Chautauqua County owned brine storage tanks, locations submitted, as part of your anti-icing/deicing system. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be applied to roads. Brine from Marcellus formation wells may not be used without additional analysis and approval.
- Vendor vehicles and/or New York State Department of Transportation (NYSDOT) vehicles transporting brine to your brine storage locations must have a valid Part 364 permit. NYSDOT Region 5 facilities must be the approved destinations under the Part 364 permit or upon the next Part 364 permit renewal. NYSDOT vehicles that apply brine supplied from your storage tanks do not require a Part 364 permit.
- Brine storage and deicing activities must be conducted in accordance with procedures described in your Beneficial Use Determination (BUD) petition and in a manner that prevents brine from flowing or running off into streams, creeks, lakes and other bodies of water and in accordance with NYSDOT Office of Operations Management Highway Maintenance Guidelines for Snow and Ice Control.
- An annual report must be filed by May 1 of each calendar year and must include the following:
 - a. The number of gallons of well production brine beneficially used under this determination as delivered to NYSDOT Region 5 facilities.
 - b. Analytical results from recent (calendar year) sampling of well production brine from the above source or sources.

Submissions should be sent to:

Stephen Condon
Bureau of Waste Reduction & Recycling
Division of Materials Management
NYSDEC
625 Broadway, 9th Floor
Albany, NY 12233-7253

The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

//SR//

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management



STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
REGION FIVE
100 SENECA STREET
BUFFALO, NY 14203
www.dot.ny.gov

DARRELL F. KAMINSKI, P.E.
ACTING REGIONAL DIRECTOR

JOAN McDONALD
COMMISSIONER

November 29, 2011

Stephen Condon
Bureau of Waste Reduction & Recycling
Division of Materials Management
NYS Department of Environmental Conservation
625 Broadway - 9th Floor
Albany, NY 12233-7253

Dear Mr. Condon,

I represent the New York State Department of Transportation (DOT), Transportation Maintenance Group in Region 5 - Buffalo. Due to the fiscal crisis the State is in and with the rising cost of granular salt for Snow and Ice Operations we are looking for alternative methods to keep our highways clear and passable during the winter season. One way of doing this is by using natural Salt Brine which has been used around the country in Snow Belt areas. This letter is to request a Beneficial Use Determination for the use of Brine from Chautauqua County New York as an anti-icing/de-icing agent to be placed on our roadways in the winter season. The material will be picked up from Chautauqua County brine storage tanks located at several locations along county highways as indicated on the attached sheets. This material will be picked up at the Chautauqua County's Department of Public Facilities by the following DOT vehicles, 11-5165, 11-5166, 09-5136, 07-5215 and delivered to our facility at the Mayville Residency 109 East Chautauqua St Mayville 14757, Sub-Residencies: 3198 Gerry-Levant Rd Falconer 14733, 154 Chautauqua Rd Fredonia 14063, and 119 Osborne St Sherman 14781 for storage. At the time of need the material will be added to the following routes as necessary. These routes are 5, 20, 39, 60, 62, 76, 83, 86, 322, 394, 426, 430, 474, 950D, 951C, 952H, 952P, 953B, 954J, 954H, 954K. (See attached Map)

The Salt Brine will be stored in a 5000 gallon poly container at the following DOT yards: 109 East Chautauqua St Mayville, 3198 Gerry-Levant Rd Falconer, 154 Chautauqua Rd Fredonia, and 119 Osborne St Sherman. The tank will be behind a concrete barrier for protection from traffic and will be labeled identifying its contents and amount. The Salt Brine will be applied using 4 tanker trucks that the DOT has set up, 11-5165, 11-5161, 09-5136 and 07-5215. The Salt Brine will be applied at the rate of 40 gallons per lane mile through a Jefferson & Dickey-John Controller and will be applied in accordance with the NYSDOT Snow and Ice Guidelines.

If you have any questions, please feel free to call me at (716) 847-3811 or contact me as follows:

David R. Tackley Jr.
NYSDOT - Operations
100 Seneca Street
Buffalo NY 14203

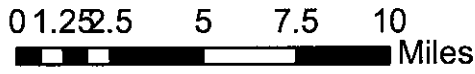
Your help in this matter is greatly appreciated.

Sincerely,

David R. Tackley Jr.
Operations Environmental Coordinator

Chautauqua County

State Routes



TANK SITE	LOCATION CR. # & NAME	CAPACITY	QTY	VENDOR	PHONE #
BOOMERTOWN	Intersection of CR. #322 Backer St. & Wellman Road	20,000 & 18,600	2	LEE TAR	269-9279
CARROLL	Town of Carroll 1 mile north of Frewsburg on Wahlgren Road	19,600 & 16,200	2	DLH	410-2543
CHERRY CREEK	1 mile west of State Route #83 on Cr. #29 on the right in Gravel Driveway.	18,600 & 15,000	2	FOX	864-4043
CLYMER	Town of Clymer Town Barns State Route #474	19,800	1	SENECA RESOURCES	988-3388
DUNKIRK WEST	Town of Dunkirk Town Bars on Co. Rt #29 on the right in Gravel driveway	18,700	1	COTTON	672-2788
ELLERY	Landfill	19,991	1	DLH	410-1543
ELLINGTON	Town Barn Rt. #62	19,980	1	TRIPLE C	792-4844
ELM TREE	Intersection CR.#316 & CR. #76 near Expressway Exit	19,900	1	LEE TAR	269-9279
FALCONER	Chautauqua Co. DPF shop Plant #3 off E. Mosher St.	19,776 & 10,000	2		
FORESTVILLE	On Walnut Rd. 1 mile north of State Route #39 in Forestville	20,345	1	TRIPLE C	792-4844
GERRY	Town of Gerry Town Barns north out of Gerry on St. Rte #60	19,877	1	TRIPLE C - Ron Cummingham	792-4844
HARMONY	Town of Harmony Town Barns at Watts Flats on Cr. #58	19,800	1	LEE TAR	269-9279
HARTFIELD	1/4 mile north of Cr #127 on Cr. #308 across from Hartfield Airport	20,000	1	TRIPLE C	792-4844
KELLY'S CORNER	Intersection of Cr. #70 Rte #380 & Bear Lake Road	19,997	1	TRIPLE C	792-4844
PENNHOLLOWS	Intersection fo CR. #326 & CR #312	20,674	1	COTTON	672-2788
SHERIDAN	Chautauqua Co. DPF shop Middle Road CR #121M next to Dunkirk Airport	24,991	2	ST. GEORGE	640-7760
SHERMAN	Chautauqua Co. DPF shop intersection State Route 430 & CR #302	20,000 & 14,700	2	RANGE RESOURCES	753-3385 326-3905
SINCLAIRVILLE	300 Ft. west of CR #49 on CR #133 Old State Route #60	19,997	1	TRIPLE C - Ron Cummingham	/work 792-4844
SOUTH DAYTON	Intersection of CR #30 & Flucker Hill Rd	19,971	1	FOX	864-4043
DUSTI	3490 LAWSON ROAD	19,990	1		

Revised:

February 20, 2009

BRINE ORDERED 2010-2011

BRINE SITE	SUPPLIER	NOV	DEC	JAN	FEB	MAR	APR	TOTAL
BOOMERTOWN		3,200	96,000	78,600	64,400	14,800		257,000
BUSTI		0	16,800	21,000	15,800	0		53,600
CARROLL		3,200	3,200	19,200	12,800	0		38,400
CHERRY CREEK		6,400	6,400	25,600	6,400	3,200		48,000
CLYMER		0	0	0	0	0		0
DUNKIRK WEST		3,200	22,400	54,400	25,600	0		105,600
ELLERY		0	3,200	3,200	3,200	0		9,600
ELM TREE		0	32,000	16,000	12,800	4,000		64,800
FALCONER		0	60,800	48,000	35,200	0		144,000
FORESTVILLE		0	9,600	12,800	12,800	3,200		38,400
GERRY		0	9,600	16,000	16,000	16,000		57,600
HARMONY		0	35,200	28,800	10,600	6,400		81,000
HARTFIELD		0	19,200	35,200	25,600	16,000		96,000
KELLYS CORNERS		0	6,400	9,600	3,200	0		19,200
PENHOLLOWS		2,000	3,200	16,000	3,200	6,400		30,800
SHERIDAN SHOP		0	0	6,400	6,400	3,200		16,000
SHERMAN SHOP		3,200	38,400	51,200	25,600	6,400		124,800
SINCLAIRVILLE		0	0	22,400	3,200	6,400		32,000
SOUTH DAYTON		3,000	9,600	12,800	8,000	10,400		43,800
								0
								0
								0
								0
								0
								0
TOTALS		24,200	372,000	477,200	290,800	96,400	0	1,260,600

BRINE RECIEVED 2010-2011

BRINE SITE	SUPPLIER	NOV	DEC	JAN	FEB	MAR	APR	TOTAL
BOOMERTOWN		0	98,430	88,920	71,960	16,600		275,910
BUSTI		0	17,900	22,800	18,400	0		59,100
CARROLL		14,140	3,360	18,280	12,600	0		48,380
CHERRY CREEK		8,000	4,000	24,00	8,000	6,000		26,000
CLYMER		0	0	0	0	0		0
DUNKIRK WEST		3,500	31,700	70,500	28,500	0		134,200
ELLERY		0	2,520	3,200	0	0		5,720
ELM TREE		0	37,800	25,700	18,400	4,200		86,100
FALCONER		0	68,672	45,864	36,407	0		150,943
FORESTVILLE		0	11,700	10,153	9,418	2,000		33,271
GERRY		0	8,980	12,300	17,348			38,628
HARMONY		0	45,500	39,000	11,400	8,200		104,100
HARTFIELD		0	24,108	40,236	26,250	19,530		110,124
KELLYS CORNERS		0	6,890	5,500	3,150	0		15,540
PENHOLLOWS		2,000	3,500	17,500	5,500			28,500
SHERIDAN SHOP		0	0	2,100	4,050			6,150
SHERMAN SHOP		4,000	44,478	57,294	28,770	18,480		153,022
SINCLAIRVILLE		0	0	21,125	5,660			26,785
SOUTH DAYTON		8,000	11,000	8,000	16,000	8,000		51,000
								0
								0
								0
								0
								0
TOTALS		39,640	420,538	488,472	321,813	83,010	0	1,353,473

BRINE USED 2010-2011

BRINE SITE	SUPPLIER	NOV	DEC	JAN	FEB	MAR	APR	TOTAL
BOOMERTOWN		6,400	96,600	62,100	53,400	18,800		237,300
BUSTI		0	24,400	20,400	10,700	0		55,500
CARROLL		0	8,200	6,400	12,200	0		26,800
CHERRY CREEK		0	1,600	23,800	7,500	4,800		37,700
CLYMER		0	26,000	16,100	13,500	7,400		63,000
DUNKIRK WEST		0	20,500	63,600	28,100	0		112,200
ELLERY		0	4,200	2,400	1,100	0		7,700
ELM TREE		1,200	28,500	15,300	8,000	5,000		58,000
FALCONER		0	61,500	51,800	33,300	15,850		162,450
FORESTVILLE		2,400	13,200	11,400	9,900	0		36,900
GERRY		0	12,500	15,300	16,000	18,400		62,200
HARMONY		0	35,500	31,200	6,400	6,500		79,600
HARTEFIELD		0	24,300	38,600	27,300	15,500		105,700
KELLYS CORNERS		0	8,800	6,200	5,500	1,200		21,700
PENHOLLOWES		1,000	4,400	21,000	4,000	6,750		37,150
SHERIDAN SHOP		1,200	2,200	6,300	8,000	3,600		21,300
SHERMAN SHOP		0	38,600	47,600	27,700	6,700		120,600
SINCLAIRVILLE		0	3,000	15,400	4,100	7,150		29,650
SOUTH DAYTON		0	11,600	15,400	6,000	14,000		47,000
TOTALS		12,200	425,600	470,300	282,700	131,650	0	1,322,450

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

JAN - 9 2012

Mr. Kim Costello
Highway Superintendent
Town of Almond
PO Box K; One Marvin Lane
Almond, NY 14804

Dear Mr. Costello:

Re: Brine Bud # **B041-12** - Dust Suppression and Road Stabilization

We have reviewed the information submitted in your December 10, 2011 petition for the proposed beneficial use of brine from the National Fuel Gas – Beech Hill Station facility located in Wellsville, New York as part of your dust control and road stabilization system. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- All vehicles transporting brine must have a valid Part 364 permit.
- Dust control and road stabilization activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied after daylight hours or used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be applied on wet roads, during rain, or when rain is imminent.
- Brine is approved for road spreading use on the roads shown in your December 10, 2011 petition. Brine may be applied a maximum of two times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.

Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

December 10, 2011

NYS Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Technical Support, 11th Floor
625 Broadway
Albany, NY 12233-7020

*St doc - for your review
last A
12/14*

RECEIVED

DEC 14 2011

BUREAU OF
TECHNICAL SUPPORT

Re: Permit # 9A-678, Part 364 Waste Transporter Renewal Application

Dear Mr. Jack Aversa:

It is my understanding that in order to be approved for a beneficial use determination (BUD) permit, a letter from the Town of Almond authorizing the use of brine on our Town roads is required.

The current road plan we would use prevents the brine from flowing or running off into streams, creeks, lakes and other bodies of water. We control the rate of application by use of an 8 foot spreader bar with an in-truck shut off. Applications of the brine would be twice a year using a 2003 Sterling which has a 2600 gallon tank that is dedicated to brine use. We understand that if used for dust control and road stabilization, applications are only allowed during daylight hours and further than 50 feet from streams, creeks, lakes or any other bodies of water. It is also known that it should not be applied to wet roads, during rain, or on steep sections of highway (exceeding 10% grade).

We currently do not have our brine stored.

If there is any other information needed for your determination, please feel free to contact me.

Sincerely,



Kim Costello
Superintendent
Town of Almond
PO Box K; One Marvin Lane
Almond, NY 14804

Beach Hill

Chain of Custody Record

TestAmerica

Temperature on Receipt _____
Dripping Wet? Yes No

THE LEADER IN ENVIRONMENTAL TESTING

THE-1001 (02/03)
Client: **NATIONAL GULF GAS**
Project Manager: **DAVID HARTY**
Project Address: **C/O CLONTER TECHNICAL ASSOCIATES**
City/State: **CLARK ST NY 14031**
Phone: **(716) 654-2293**
Lab Number: **139805**
Date: **4/9/10**
Page: **1 of 1**

Contract/Purchase Order/Quote No. _____
Sample ID No. and Description: **BRINE**
Date: **4/9/10** Time: **11:15**
Containers & Preservatives: **PP VOLUMES, PP SEAL: VOLS, PP PESTICIDES, PP PCBs, TOTAL CN, TOTAL PHENOLICS, COND., OIL + GREASE, TDS, TOC, TOX, CI, METALS**

Sample ID No. and Description	Date	Time	Initials	Signature	Time
BRINE	4/9/10	11:15	[Signature]	[Signature]	1:55

1. Received By: [Signature] Date: 4/9/10 Time: 1:55
2. Received By: [Signature] Date: 4/9/10 Time: 1:55

3. Analyzed By: [Signature] Date: 4/9/10 Time: 1:55

4. Received By: [Signature] Date: 4/9/10 Time: 1:55

Comments: *** METALS = Sb, As, Be, Cd, Ca, Cr, Cu, Pb, Na, Hg, Ni, Se, Rb, Nk, Tl, Zn**
DISTRIBUTION: **100% - 100% - 100% - 100% - 100% - 100% - 100% - 100% - 100% - 100%**



Paul, inv. # 48 002968

Analytical Report

Work Order: RTD1040

Project Description

Brine - Priority Pollutant Analysis

For:

James Clark

National Fuel & Gas - Buffalo, NY

365 Mineral Springs Rd Bldg 8

Buffalo, NY 14221

Melissa Deyo For Paul Morrow

Project Manager

melissa.deyo@testamericainc.com

Thursday, April 29, 2010

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFGReceived: 04/09/10
Reported: 04/29/10 10:10**TestAmerica Buffalo
Current Certifications**As of 12/21/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0588
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA, NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP, SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA, RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington*	NELAP CWA, RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA, RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
D02	Dilution required due to sample matrix effects
D08	Dilution required due to high concentration of target analyte(s)
D15	Sample weight / volume has been reduced to eliminate matrix interference. Reporting limits have been adjusted accordingly.
E	Concentration exceeds the calibration range and therefore result is semi-quantitative.
HFT	The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
QSU	Sulfur (EPA 3660) clean-up performed on extract.
S9	Unable to digest full amount of sample due to matrix problem.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water)							Sampled: 04/09/10 11:15	Recvd: 04/09/10 15:55		
<u>Volatile Organic Compounds</u>										
Benzene	36		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloromethane	2.7	J	5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Toluene	5.2		5.0	0.46	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
<u>Acid and Base/Neutral Extractables by EPA Method 625</u>										
2,4-Dimethylphenol	0.15	J	4.9	0.13	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Naphthalene	0.17	J	4.9	0.079	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenol	13		4.9	0.12	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
<u>Organochlorine Pesticides and PCBs by EPA Method 608</u>										
gamma-BHC (Lindane) [2C]	0.028	J	0.049	0.0058	ug/L	1.00	04/15/10 13:23	DGB	10D0889	608
<u>Total Metals by EPA 200 Series Methods</u>										
Arsenic	0.0145		0.0100	0.0056	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Beryllium	0.0114		0.0020	0.0002	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Cadmium	0.0022		0.0010	0.0003	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Calcium	40500	D08	50.0	10.0	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Copper	0.0070	J	0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Magnesium	4390	D08	4.00	0.868	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Sodium	19100	D08	100	32.4	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Zinc	0.0378		0.0100	0.0015	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
<u>General Chemistry Parameters</u>										
Oil and Grease	3.0	J	5.0	1.4	mg/L	1.00	04/12/10 11:40	JME	10D0971	1064A
Chloride	220000	D08	20000	9200	mg/L	20000	04/20/10 15:04	KLD	10D1994	4500-CL E
pH	5.78	HFT	0.00500	0.00	SU	1.00	04/10/10 09:07	JFR	10D1046	9040
Total Recoverable Phosphorus	0.0099	J	0.0100	0.0050	mg/L	1.00	04/14/10 16:36	KLD	10D1239	420.4
Total Dissolved Solids	306000	D08, B	2000	800	mg/L	200	04/13/10 22:00	AMP	10D1135	2540C
Specific Conductance (25 C)	160000		NR	0.0	umhos/cm	1.00	04/12/10 10:43	KLD	10D1002	120.1
Total Organic Carbon	127	D08	40.0	17.4	mg/L	40.0	04/22/10 21:15	KLD	10D2194	9060
Total Organic Halides (Tox)	9330	D15, B	5000	1630	ug/L	1.00	04/22/10 10:37	JMM	10D1897	9020

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
BRINE	RTD1040-01	Water	04/09/10 11:15	04/09/10 15:55	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water)						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		
Volatiles Organic Compounds										
1,1,1-Trichloroethane	ND		5.0	0.73	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1,2,2-Tetrachloroethane	ND		5.0	1.2	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1-Dichloroethane	ND		5.0	0.59	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1-Dichloroethene	ND		5.0	0.85	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloroethane	ND		5.0	0.80	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloropropane	ND		5.0	0.61	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,3-Dichlorobenzene	ND		5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
2-Chloroethyl vinyl ether	ND		25	3.7	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Benzene	36		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromodichloromethane	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromoform	ND		5.0	0.47	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromomethane	ND		5.0	1.2	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Carbon Tetrachloride	ND		5.0	0.51	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chlorobenzene	ND		5.0	0.48	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chlorodibromomethane	ND		5.0	0.41	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloroethane	ND		5.0	0.87	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloroform	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloromethane	2.7	J	5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
cis-1,3-Dichloropropane	ND		5.0	0.57	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Ethylbenzene	ND		5.0	0.46	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Methylene Chloride	ND		5.0	0.81	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Tetrachloroethane	ND		5.0	0.34	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Toluene	5.2		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
trans-1,2-Dichloroethane	ND		5.0	0.59	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
trans-1,3-Dichloropropane	ND		5.0	0.44	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Trichloroethane	ND		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Trichlorofluoromethane	ND		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Vinyl chloride	ND		5.0	0.75	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloroethane-d4	109 %		Surr Limits: (88-132%)				04/13/10 07:07	TRB	10D0944	624
4-Bromofluorobenzene	93 %		Surr Limits: (78-122%)				04/13/10 07:07	TRB	10D0944	624
Toluene-d8	93 %		Surr Limits: (87-110%)				04/13/10 07:07	TRB	10D0944	624

Acid and Base/Neutral Extractables by EPA Method 825

1,2,4-Trichlorobenzene	ND		9.8	0.48	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,2-Dichlorobenzene	ND		9.8	0.14	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,2-Diphenylhydrazine	ND		9.8	0.062	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,3-Dichlorobenzene	ND		9.8	0.067	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,4-Dichlorobenzene	ND		9.8	0.088	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4,6-Trichlorophenol	ND		4.9	0.23	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dichlorophenol	ND		4.9	0.29	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dimethylphenol	6.15	J	4.9	0.13	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dinitrophenol	ND		9.8	0.82	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dinitrotoluene	ND		4.9	0.26	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,6-Dinitrotoluene	ND		4.9	0.70	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Chloronaphthalene	ND		4.9	0.068	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Chlorophenol	ND		4.9	0.15	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Nitrophenol	ND		4.9	0.14	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625

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National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.										
						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		

Acid and Base/Neutral Extractables by EPA Method 825 - cont.

2-Fluorophenol	85 %		Surr Limits: (17-120%)				04/13/10 08:29	MAF	10D0825	625
Phenol-d5	103 %		Surr Limits: (10-120%)				04/13/10 08:29	MAF	10D0825	625
Nitrobenzene-d5	97 %		Surr Limits: (42-120%)				04/13/10 08:29	MAF	10D0825	625
2-Fluorobiphenyl	84 %		Surr Limits: (44-120%)				04/13/10 08:29	MAF	10D0825	625
2,4,6-Tribromophenol	113 %		Surr Limits: (49-122%)				04/13/10 08:29	MAF	10D0825	625
p-Terphenyl-d14	55 %		Surr Limits: (22-125%)				04/13/10 08:29	MAF	10D0825	625

Organochlorine Pesticides and PCBs by EPA Method 608

Aroclor 1016	ND	QSU	0.058	0.037	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1221	ND	QSU	0.058	0.039	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1232	ND	QSU	0.058	0.048	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1242	ND	QSU	0.058	0.043	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1248	ND	QSU	0.058	0.035	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1254	ND	QSU	0.058	0.014	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1260	ND	QSU	0.058	0.010	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1262	ND	QSU	0.058	0.048	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1268	ND	QSU	0.058	0.023	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Decachlorobiphenyl	49 %	QSU	Surr Limits: (26-145%)				04/13/10 07:53	JxM	10D0875	608
Tetrachloro-m-xylene	79 %	QSU	Surr Limits: (25-152%)				04/13/10 07:53	JxM	10D0875	608
4,4'-DDD [2C]	ND		0.049	0.0089	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
4,4'-DDE [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
4,4'-DDT [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Aldrin [2C]	ND		0.049	0.0064	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
alpha-BHC [2C]	ND		0.049	0.0064	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
beta-BHC [2C]	ND		0.049	0.024	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Chlordane [2C]	ND		0.49	0.028	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
delta-BHC [2C]	ND		0.049	0.0098	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Dieldrin [2C]	ND		0.049	0.0095	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan I [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan II [2C]	ND		0.049	0.012	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan sulfate [2C]	ND		0.049	0.015	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endrin [2C]	ND		0.049	0.013	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endrin aldehyde [2C]	ND		0.049	0.016	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
gamma-BHC (Lindane) [2C]	0.028	J	0.049	0.0058	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Heptachlor [2C]	ND		0.049	0.0063	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Heptachlor epoxide [2C]	ND		0.049	0.0051	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Toxaphene [2C]	ND		0.49	0.12	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Decachlorobiphenyl [2C]	21 %		Surr Limits: (15-139%)				04/15/10 13:23	DGB	10D0869	608
Tetrachloro-m-xylene [2C]	61 %		Surr Limits: (30-139%)				04/15/10 13:23	DGB	10D0869	608

Total Metals by EPA 200 Series Methods

Antimony	ND	D02	0.400	0.136	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Arsenic	0.0146		0.0100	0.0068	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Beryllium	0.0114		0.0020	0.0002	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Cadmium	0.0022		0.0010	0.0003	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Calcium	40500	D08	50.0	10.0	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Chromium	ND		0.0040	0.0009	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Copper	0.0070	J	0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7

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National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		
Total Metals by EPA 200 Series Methods - cont.										
Lead	ND	D02	0.0250	0.0150	mg/L	5.00	04/14/10 10:53	DAN	10D1007	200.7
Magnesium	4390	D08	4.00	0.868	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Nickel	ND		0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Selenium	ND	D02	0.300	0.174	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Silver	ND		0.0030	0.0012	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Sodium	19100	D08	100	32.4	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Thallium	ND	D02	0.100	0.0512	mg/L	5.00	04/14/10 10:53	DAN	10D1007	200.7
Zinc	0.0378		0.0100	0.0015	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Mercury	ND	S9	0.0012	0.0007	mg/L	1.00	04/13/10 17:12	MXM	10D1099	245.1
General Chemistry Parameters										
Oil and Grease	3.0	J	5.0	1.4	mg/L	1.00	04/12/10 11:40	JME	10D0971	1664A
Chloride	220000	D08	20000	9200	mg/L	20000	04/20/10 15:04	KLD	10D1994	4500-CL E
Cyanide	ND		0.0100	NR	mg/L	1.00	04/17/10 11:05	JME	10D1532	335.4
pH	5.78	HFT	0.00500	0.00	SU	1.00	04/10/10 00:07	JFR	10D1046	9040
Total Recoverable	0.0099	J	0.0100	0.0050	mg/L	1.00	04/14/10 16:36	KLD	10D1239	420.4
Phenolics										
Total Dissolved Solids	308000	D08, B	2000	800	mg/L	200	04/13/10 22:00	AMP	10D1135	2540C
Specific Conductance (25 C)	160000		NA	0.0	umhos/cm	1.00	04/12/10 10:43	KLD	10D1002	120.1
Total Organic Carbon	127	D08	40.0	17.4	mg/L	40.0	04/22/10 21:15	KLD	10D2194	9060
Total Organic Halides (Tox)	9330	D15, B	5000	1630	ug/L	1.00	04/22/10 10:37	JMM	10D1897	9020

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFGReceived: 04/09/10
Reported: 04/29/10 10:10**SAMPLE EXTRACTION DATA**

Parameter	Batch	Lab Number	WVof Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Acid and Base/Neutral Extractables by EPA Method 625									
625	10D0825	RTD1040-01	1,020.00	mL	1.00	mL	04/10/10 09:27	LTY	3510C MB
General Chemistry Parameters									
120.1	10D1002	RTD1040-01	50.00	mL	50.00	mL	04/12/10 10:43	KLD	No prep Conductance
1664A	10D0971	RTD1040-01	1,010.00	mL	1,000.00	mL	04/12/10 11:40	JME	No prep Oil and Grease
2540C	10D1135	RTD1040-01	100.00	mL	100.00	mL	04/13/10 22:00	MDM	Solids
335.4	10D1532	RTD1040-01	50.00	mL	50.00	mL	04/16/10 14:05	AMP	Cn Digestion
420.4	10D1239	RTD1040-01	50.00	mL	50.00	mL	04/14/10 12:38	JME	TRP Distillation
4500-CL E	10D1994	RTD1040-01	2.00	mL	2.00	mL	04/20/10 13:04	KLD	No Prep Chloride
9020	10D1897	RTD1040-01	0.40	mL	100.00	mL	04/20/10 12:53	JMM	No prep TOX
9040	10D1046	RTD1040-01	1.00	mL	1.00	mL	04/10/10 00:07	JFR	pH
9060	10D2194	RTD1040-01	40.00	mL	40.00	mL	04/22/10 18:33	KLD	No prep Carbon
Organochlorine Pesticides and PCBs by EPA Method 608									
608	10D0875	RTD1040-01	1,030.00	mL	2.00	mL	04/12/10 05:00	BML	3510C GC
608	10D0869	RTD1040-01	1,030.00	mL	10.00	mL	04/11/10 09:00	KMB	3510C GC
Total Metals by EPA 200 Series Methods									
200.7	10D1007	RTD1040-01	50.00	mL	50.00	mL	04/13/10 07:45	KCW	3005A
245.1	10D1099	RTD1040-01	5.00	mL	50.00	mL	04/13/10 13:30	MXM	7470A
Volatile Organic Compounds									
624	10D0944	RTD1040-01	5.00	mL	5.00	mL	04/12/10 10:54	TRB	5030B MS

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National Fuel & Gas - Buffalo, NY
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Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10

Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Blank Analyzed: 04/12/10 (Lab Number:10D0944-BLK1, Batch: 10D0944)											
1,1,1-Trichloroethane			5.0	0.38	ug/L	ND					
1,1,2,2-Tetrachloroethane			5.0	0.26	ug/L	ND					
1,1,2-Trichloroethane			5.0	0.48	ug/L	ND					
1,1-Dichloroethane			5.0	0.59	ug/L	ND					
1,1-Dichloroethene			5.0	0.85	ug/L	ND					
1,2-Dichlorobenzene			5.0	0.44	ug/L	ND					
1,2-Dichloroethane			5.0	0.60	ug/L	ND					
1,2-Dichloropropane			5.0	0.61	ug/L	ND					
1,3-Dichlorobenzene			5.0	0.54	ug/L	ND					
1,4-Dichlorobenzene			5.0	0.51	ug/L	ND					
2-Chloroethyl vinyl ether			25	1.8	ug/L	ND					
Benzene			5.0	0.60	ug/L	ND					
Bromodichloromethane			5.0	0.54	ug/L	ND					
Bromoform			5.0	0.47	ug/L	ND					
Bromomethane			5.0	1.2	ug/L	ND					
Carbon Tetrachloride			5.0	0.51	ug/L	ND					
Chlorobenzene			5.0	0.48	ug/L	ND					
Chlorodibromomethane			5.0	0.41	ug/L	ND					
Chloroethane			5.0	0.67	ug/L	ND					
Chloroform			5.0	0.54	ug/L	ND					
Chloromethane			5.0	0.64	ug/L	ND					
cis-1,3-Dichloropropene			5.0	0.33	ug/L	ND					
Ethylbenzene			5.0	0.46	ug/L	ND					
Methylene Chloride			5.0	0.81	ug/L	ND					
Tetrachloroethene			5.0	0.34	ug/L	ND					
Toluene			5.0	0.45	ug/L	ND					
trans-1,2-Dichloroethene			5.0	0.59	ug/L	ND					
trans-1,3-Dichloropropene			5.0	0.44	ug/L	ND					
Trichloroethene			5.0	0.60	ug/L	ND					
Trichlorofluoromethane			5.0	0.45	ug/L	ND					
Vinyl chloride			5.0	0.75	ug/L	ND					
Surrogate:					ug/L		96	88-132			
1,2-Dichloroethane-d4					ug/L		88	78-122			
Surrogate:					ug/L		99	87-110			
4-Bromofluorobenzene					ug/L						
Surrogate: Toluene-d8					ug/L						

LCS Analyzed: 04/12/10 (Lab Number:10D0944-BS1, Batch: 10D0944)

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Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Volatiles Organic Compounds										
LCS Analyzed: 04/12/10 (Lab Number:10D0944-BS1, Batch: 10D0944)										
1,1,1-Trichloroethane		20.0	5.0	0.38	ug/L	16.5	93	75-125		
1,1,2,2-Tetrachloroethane		20.0	5.0	0.28	ug/L	17.0	85	61-140		
1,1,2-Trichloroethane		20.0	5.0	0.48	ug/L	18.6	93	71-129		
1,1-Dichloroethane		20.0	5.0	0.59	ug/L	19.0	95	73-128		
1,1-Dichloroethene		20.0	5.0	0.85	ug/L	18.7	94	51-160		
1,2-Dichlorobenzene		20.0	5.0	0.44	ug/L	20.7	103	63-137		
1,2-Dichloroethane		20.0	5.0	0.60	ug/L	19.3	97	66-132		
1,2-Dichloropropane		20.0	5.0	0.61	ug/L	19.8	98	34-168		
1,3-Dichlorobenzene		20.0	5.0	0.64	ug/L	21.0	106	73-127		
1,4-Dichlorobenzene		20.0	5.0	0.51	ug/L	20.0	100	63-137		
2-Chloroethyl vinyl ether		100	25	1.8	ug/L	103	103	1-224		
Benzene		20.0	5.0	0.60	ug/L	19.5	97	64-136		
Bromodichloromethane		20.0	5.0	0.64	ug/L	19.4	97	66-135		
Bromoforn		20.0	5.0	0.47	ug/L	16.9	85	71-129		
Bromomethane		20.0	5.0	1.2	ug/L	18.8	94	14-186		
Carbon Tetrachloride		20.0	5.0	0.51	ug/L	18.2	91	73-127		
Chlorobenzene		20.0	5.0	0.48	ug/L	19.3	98	66-134		
Chlorodibromomethane		20.0	5.0	0.41	ug/L	18.2	91	68-133		
Chloroethane		20.0	5.0	0.87	ug/L	17.0	85	38-162		
Chloroform		20.0	5.0	0.64	ug/L	18.9	94	68-133		
Chloromethane		20.0	5.0	0.64	ug/L	20.0	100	1-204		
cis-1,3-Dichloropropene		20.0	5.0	0.33	ug/L	19.0	95	24-176		
Ethylbenzene		20.0	5.0	0.46	ug/L	19.1	98	59-141		
Methylene Chloride		20.0	5.0	0.81	ug/L	20.1	101	61-140		
Tetrachloroethane		20.0	5.0	0.34	ug/L	18.4	92	74-127		
Toluene		20.0	5.0	0.45	ug/L	18.9	95	75-126		
trans-1,2-Dichloroethene		20.0	5.0	0.59	ug/L	19.2	98	70-131		
trans-1,3-Dichloropropene		20.0	5.0	0.44	ug/L	18.0	90	50-180		
Trichloroethene		20.0	5.0	0.60	ug/L	18.1	90	67-134		
Trichlorofluoromethane		20.0	5.0	0.45	ug/L	18.9	94	48-152		
Vinyl chloride		20.0	5.0	0.75	ug/L	19.5	97	4-198		
Surrogate:					ug/L		95	68-132		
1,2-Dichloroethane-d4					ug/L		99	78-122		
Surrogate:					ug/L		98	87-110		
4-Bromofluorobenzene					ug/L		98	87-110		
Surrogate: Toluene-d8					ug/L		98	87-110		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 04/13/10 (Lab Number:10D0825-BLK1, Batch: 10D0825)											
1,2,4-Trichlorobenzene			10	0.49	ug/L	ND					
1,2-Dichlorobenzene			10	0.14	ug/L	ND					
1,2-Diphenylhydrazine			10	0.063	ug/L	ND					
1,3-Dichlorobenzene			10	0.069	ug/L	ND					
1,4-Dichlorobenzene			10	0.090	ug/L	ND					
2,4,6-Trichlorophenol			5.0	0.23	ug/L	ND					
2,4-Dichlorophenol			5.0	0.30	ug/L	ND					
2,4-Dimethylphenol			5.0	0.13	ug/L	ND					
2,4-Dinitrophenol			10	0.84	ug/L	ND					
2,4-Dinitrotoluene			5.0	0.26	ug/L	ND					
2,6-Dinitrotoluene			5.0	0.72	ug/L	ND					
2-Chloronaphthalene			5.0	0.068	ug/L	ND					
2-Chlorophenol			5.0	0.16	ug/L	ND					
2-Nitrophenol			5.0	0.14	ug/L	ND					
3,3'-Dichlorobenzidine			5.0	0.82	ug/L	ND					
4,6-Dinitro-2-methylphenol			10	0.76	ug/L	ND					
4-Bromophenyl phenyl ether			5.0	0.11	ug/L	ND					
4-Chloro-3-methylphenol			5.0	0.56	ug/L	ND					
4-Chlorophenyl phenyl ether			5.0	0.21	ug/L	ND					
4-Nitrophenol			10	1.3	ug/L	ND					
Acenaphthene			5.0	0.060	ug/L	ND					
Acenaphthylene			5.0	0.034	ug/L	ND					
Anthracene			5.0	0.052	ug/L	ND					
Benzidine			80	2.5	ug/L	ND					
Benzo(a)anthracene			5.0	0.043	ug/L	ND					
Benzo(a)pyrene			5.0	0.058	ug/L	ND					
Benzo(b)fluoranthene			5.0	0.082	ug/L	ND					
Benzo(ghi)perylene			5.0	0.10	ug/L	0.24					J
Benzo(k)fluoranthene			5.0	0.042	ug/L	ND					
Bis(2-chloroethoxy)methane			5.0	0.085	ug/L	ND					
Bis(2-chloroethyl)ether			5.0	1.1	ug/L	ND					
2,2'-Oxybis(1-Chloropropane)			5.0	0.066	ug/L	ND					
Bis(2-ethylhexyl)phthalate			10	0.86	ug/L	ND					
Butyl benzyl phthalate			5.0	1.3	ug/L	ND					

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Buffalo, NY 14221

Work Order: RTD1040

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Reported: 04/29/10 10:10

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Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Acid and Base/Neutral Extractables by EPA Method 825

Blank Analyzed: 04/13/10 (Lab Number:10D0825-BLK1, Batch: 10D0825)

Chrysene			5.0	0.036	ug/L	ND					
Dibenzo(a,h)anthracene			5.0	0.055	ug/L	0.33					J
Diethyl phthalate			5.0	0.17	ug/L	ND					
Dimethyl phthalate			5.0	0.17	ug/L	ND					
Di-n-butyl phthalate			5.0	0.94	ug/L	ND					
Di-n-octyl phthalate			5.0	4.5	ug/L	ND					
Fluoranthene			5.0	0.11	ug/L	ND					
Fluorene			5.0	0.043	ug/L	ND					
Hexachlorobenzene			5.0	0.28	ug/L	ND					
Hexachlorobutadiene			5.0	0.62	ug/L	ND					
Hexachlorocyclopentadiene			5.0	0.45	ug/L	ND					
Hexachloroethane			5.0	0.48	ug/L	ND					
Indeno(1,2,3-cd)pyrene			5.0	0.19	ug/L	ND					
Isophorone			5.0	0.16	ug/L	ND					
Naphthalene			5.0	0.080	ug/L	ND					
Nitrobenzene			5.0	0.11	ug/L	ND					
N-Nitrosodimethylamine			10	0.96	ug/L	ND					
N-Nitrosodi-n-propylamine			5.0	0.23	ug/L	ND					
N-Nitrosodiphenylamine			5.0	0.40	ug/L	ND					
Pentachlorophenol			10	0.41	ug/L	ND					
Phenanthrene			5.0	0.071	ug/L	ND					
Phenol			5.0	0.12	ug/L	ND					
Pyrene			5.0	0.041	ug/L	ND					

Surrogate: 2-Fluorophenol					ug/L		53	17-120			
Surrogate: Phenol-d5					ug/L		40	10-120			
Surrogate: Nitrobenzene-d5					ug/L		96	42-120			
Surrogate: 2-Fluorobiphenyl					ug/L		96	44-120			
Surrogate: 2,4,6-Tribromophenol					ug/L		105	49-122			
Surrogate: p-Terphenyl-d14					ug/L		108	22-125			

LCS Analyzed: 04/13/10 (Lab Number:10D0825-BS1, Batch: 10D0825)

1,2,4-Trichlorobenzene	50.0	10	0.49	ug/L	39.3	79	44-142				
1,2-Dichlorobenzene	50.0	10	0.14	ug/L	38.7	77	32-129				
1,2-Diphenylhydrazine		10	0.063	ug/L	60.9		47-146				
1,3-Dichlorobenzene	50.0	10	0.069	ug/L	37.2	74	1-172				

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Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Analyzed: 04/13/10 (Lab Number:10D0825-BS1, Batch: 10D0825)											
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	37.8	76	20-124			
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	61.3	123	37-144			
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	54.7	109	39-136			
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	48.3	97	32-119			
2,4-Dinitrophenol		50.0	10	0.84	ug/L	39.4	79	1-191			
2,4-Dinitrotoluene		50.0	5.0	0.26	ug/L	63.9	128	38-139			
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	66.0	132	50-158			
2-Chloronaphthalene		50.0	5.0	0.068	ug/L	51.2	102	60-118			
2-Chlorophenol		50.0	5.0	0.16	ug/L	46.2	92	23-134			
2-Nitrophenol		50.0	5.0	0.14	ug/L	63.6	107	28-182			
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	85.3	171	1-262			E
4,6-Dinitro-2-methylphenol		50.0	10	0.76	ug/L	66.9	134	1-181			
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	59.0	118	53-127			
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	59.8	120	22-147			
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	55.9	112	25-158			
4-Nitrophenol		50.0	10	1.3	ug/L	28.9	58	1-132			
Acenaphthene		50.0	5.0	0.060	ug/L	55.0	110	47-145			
Acenaphthylene		50.0	5.0	0.034	ug/L	56.9	114	33-145			
Anthracene		50.0	5.0	0.052	ug/L	62.5	125	27-133			
Benzidine		50.0	80	2.5	ug/L	118	237	1-120			L1,E
Benzo(a)anthracene		50.0	5.0	0.043	ug/L	60.3	121	33-143			
Benzo(a)pyrene		50.0	5.0	0.058	ug/L	61.0	122	17-163			
Benzo(b)fluoranthene		50.0	5.0	0.062	ug/L	55.1	110	24-159			
Benzo(ghi)perylene		50.0	5.0	0.10	ug/L	66.4	133	1-219			B
Benzo(k)fluoranthene		50.0	5.0	0.042	ug/L	52.1	104	11-162			
Bis(2-chloroethoxy)methane		50.0	5.0	0.085	ug/L	46.0	92	33-184			
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	42.0	84	12-158			
2,2'-Oxybis(1-Chloropropane)		50.0	5.0	0.088	ug/L	43.6	87	36-166			
Bis(2-ethylhexyl)phthalate		50.0	10	0.86	ug/L	63.5	127	8-168			
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	67.3	135	1-152			
Chrysene		50.0	5.0	0.036	ug/L	62.3	125	17-168			
Dibenzo(a,h)anthracene		50.0	5.0	0.055	ug/L	62.7	125	1-227			B
Diethyl phthalate		50.0	5.0	0.17	ug/L	62.5	125	1-114			L1
Dimethyl phthalate		50.0	5.0	0.17	ug/L	57.2	114	1-112			L1

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National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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Acid and Base/Neutral Extractables by EPA Method 825

LCS Analyzed: 04/13/10 (Lab Number:10D0825-B81, Batch: 10D0825)

Di-n-butyl phthalate		50.0	5.0	0.94	ug/L	68.9	134	1-116		L1
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	60.6	122	4-146		
Fluoranthene		50.0	5.0	0.11	ug/L	62.4	125	26-137		
Fluorene		50.0	5.0	0.043	ug/L	58.7	117	59-121		
Hexachlorobenzene		50.0	5.0	0.28	ug/L	55.8	112	1-152		
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	37.6	75	24-116		
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	32.1	64	5-120		
Hexachloroethane		50.0	5.0	0.48	ug/L	39.2	78	40-113		
Indeno(1,2,3-cd)pyrene		50.0	5.0	0.19	ug/L	64.5	129	1-171		
Isophorone		50.0	5.0	0.16	ug/L	48.4	97	21-196		
Naphthalene		50.0	5.0	0.050	ug/L	45.9	92	21-133		
Nitrobenzene		50.0	5.0	0.11	ug/L	46.5	93	35-160		
N-Nitrosodimethylamine		50.0	10	0.98	ug/L	27.3	56	19-120		
N-Nitrosodi-n-propylamine		50.0	5.0	0.23	ug/L	51.2	102	1-230		
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	72.8	146	54-126		L1
Pentachlorophenol		50.0	10	0.41	ug/L	64.1	128	14-176		
Phenanthrene		50.0	5.0	0.071	ug/L	62.3	125	54-120		L1
Phenol		50.0	5.0	0.12	ug/L	22.0	44	5-112		
Pyrene		50.0	5.0	0.041	ug/L	64.0	128	52-115		L1

Surrogate: 2-Fluorophenol					ug/L		54	17-120		
Surrogate: Phenol-d5					ug/L		40	10-120		
Surrogate: Nitrobenzene-d6					ug/L		95	42-120		
Surrogate: 2-Fluorobiphenyl					ug/L		98	44-120		
Surrogate: 2,4,6-Tribromophenol					ug/L		118	49-122		
Surrogate: p-Terphenyl-d14					ug/L		109	22-125		

LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-B81, Batch: 10D0825)

1,2,4-Trichlorobenzene		50.0	10	0.49	ug/L	37.8	76	44-142	4	34
1,2-Dichlorobenzene		50.0	10	0.14	ug/L	37.6	75	32-129	3	38
1,2-Diphenylhydrazine			10	0.063	ug/L	58.9		47-146	3	20
1,3-Dichlorobenzene		50.0	10	0.069	ug/L	35.9	72	1-172	4	37
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	36.7	73	20-124	3	40
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	58.9	118	37-144	4	20
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	53.5	107	39-135	2	23
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	49.5	99	32-119	2	16

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)											
2,4-Dinitrophenol		50.0	10	0.84	ug/L	39.2	78	1-191	0.5	29	
2,4-Dinitrotoluene		50.0	5.0	0.26	ug/L	62.6	125	39-139	2	20	
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	62.8	126	50-158	5	17	
2-Chloronaphthalene		50.0	5.0	0.088	ug/L	48.9	98	60-118	5	30	
2-Chlorophenol		50.0	5.0	0.16	ug/L	44.7	89	23-134	3	26	
2-Nitrophenol		50.0	5.0	0.14	ug/L	51.2	102	29-182	5	26	
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	85.0	170	1-262	0.4	31	E
4,6-Dinitro-2-methylphenol		50.0	10	0.75	ug/L	66.6	133	1-181	0.5	30	
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	56.4	113	53-127	5	16	
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	60.0	120	22-147	0.4	16	
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	53.5	107	26-156	4	15	
4-Nitrophenol		50.0	10	1.3	ug/L	28.5	57	1-132	1	24	
Acenaphthene		50.0	5.0	0.060	ug/L	52.8	106	47-145	4	25	
Acenaphthylene		50.0	5.0	0.034	ug/L	54.6	109	33-145	4	22	
Anthracene		50.0	5.0	0.052	ug/L	60.4	121	27-133	3	15	
Benzidine		50.0	80	2.5	ug/L	127	254	1-120	7	60	L1,E
Benzo(a)anthracene		50.0	5.0	0.043	ug/L	58.4	117	33-143	3	15	
Benzo(a)pyrene		50.0	5.0	0.058	ug/L	58.7	117	17-163	4	16	
Benzo(b)fluoranthene		50.0	5.0	0.062	ug/L	52.6	105	24-159	5	17	
Benzo(g,h,i)perylene		50.0	5.0	0.10	ug/L	64.8	130	1-219	2	19	B
Benzo(k)fluoranthene		50.0	5.0	0.042	ug/L	51.4	103	11-162	1	19	
Bis(2-chloroethoxy)methane		50.0	5.0	0.065	ug/L	43.9	88	33-184	5	23	
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	40.6	81	12-158	3	33	
2,2'-Oxybis(1-Chloropropane)		50.0	5.0	0.086	ug/L	41.6	83	36-166	5	36	
Bis(2-ethylhexyl)phthalate		50.0	10	0.86	ug/L	62.2	124	8-158	2	15	
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	65.2	130	1-162	3	16	
Chrysene		50.0	5.0	0.036	ug/L	60.3	121	17-168	3	15	
Dibenzo(a,h)anthracene		50.0	5.0	0.055	ug/L	61.6	123	1-227	2	18	B
Diethyl phthalate		50.0	5.0	0.17	ug/L	60.5	121	1-114	3	15	L1
Dimethyl phthalate		50.0	5.0	0.17	ug/L	55.0	110	1-112	4	15	
Di-n-butyl phthalate		50.0	5.0	0.94	ug/L	65.4	131	1-118	2	15	L1
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	59.3	119	4-146	3	15	
Fluoranthene		50.0	5.0	0.11	ug/L	60.8	122	26-137	3	15	
Fluorene		50.0	5.0	0.043	ug/L	56.1	112	59-121	5	18	

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Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)											
Hexachlorobenzene		50.0	5.0	0.28	ug/L	53.9	108	1-152	3	15	
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	36.9	74	24-116	2	50	
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	31.8	64	5-120	1	50	
Hexachloroethane		50.0	5.0	0.48	ug/L	37.9	76	40-113	3	43	
Indeno(1,2,3-cd)pyrene		50.0	5.0	0.19	ug/L	53.2	126	1-171	2	17	
Isophorone		50.0	5.0	0.16	ug/L	46.1	92	21-196	5	21	
Naphthalene		50.0	5.0	0.080	ug/L	44.3	89	21-133	4	31	
Nitrobenzene		50.0	5.0	0.11	ug/L	44.8	90	35-180	4	27	
N-Nitrosodimethylamine		50.0	10	0.96	ug/L	25.3	51	19-120	8	22	
N-Nitrosodi-n-propylamine		50.0	5.0	0.23	ug/L	49.3	99	1-230	4	23	
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	70.9	142	54-125	3	15	L1
Pentachlorophenol		50.0	10	0.41	ug/L	62.4	125	14-176	3	21	
Phenanthrene		50.0	5.0	0.071	ug/L	60.3	121	54-120	3	16	L1
Phenol		50.0	5.0	0.12	ug/L	21.8	43	5-112	2	36	
Pyrene		50.0	5.0	0.041	ug/L	62.3	125	52-115	3	15	L1
Surrogate:					ug/L		51	17-120			
2-Fluorophenol					ug/L		39	10-120			
Surrogate: Phenol-d6					ug/L		89	42-120			
Surrogate:					ug/L		92	44-120			
Nitrobenzene-d5					ug/L		112	49-122			
Surrogate:					ug/L		108	22-125			
2-Fluorobiphenyl					ug/L						
Surrogate:					ug/L						
2,4,6-Tribromophenol					ug/L						
Surrogate:					ug/L						
p-Terphenyl-d14					ug/L						

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Organochlorine Pesticides and PCBs by EPA Method 808											
Blank Analyzed: 04/14/10 (Lab Number:10D0869-BLK1, Batch: 10D0869)											
4,4'-DDD			0.050	0.0092	ug/L	ND					
4,4'-DDE			0.050	0.012	ug/L	ND					
4,4'-DDT			0.050	0.011	ug/L	ND					
Aldrin			0.050	0.0086	ug/L	ND					
alpha-BHC			0.050	0.0086	ug/L	ND					
beta-BHC			0.050	0.025	ug/L	ND					
Chlordane			0.50	0.029	ug/L	ND					
delta-BHC			0.050	0.010	ug/L	ND					
Dieldrin			0.050	0.0098	ug/L	ND					
Endosulfan I			0.050	0.011	ug/L	ND					
Endosulfan II			0.050	0.012	ug/L	ND					
Endosulfan sulfate			0.050	0.016	ug/L	ND					
Endrin			0.050	0.014	ug/L	ND					
Endrin aldehyde			0.050	0.016	ug/L	ND					
gamma-BHC (Lindane)			0.050	0.0060	ug/L	ND					
Heptachlor			0.050	0.0085	ug/L	ND					
Heptachlor epoxide			0.050	0.0053	ug/L	ND					
Toxaphene			0.50	0.12	ug/L	ND					

Surrogate:					ug/L		90	15-139			
Decachlorobiphenyl											
Surrogate:					ug/L		70	30-139			
Tetrachloro-m-xylene											

LC8 Analyzed: 04/14/10 (Lab Number:10D0869-BS1, Batch: 10D0869)

4,4'-DDD	0.500	0.050	0.0092	ug/L	0.400	80	25-139				
4,4'-DDE	0.500	0.050	0.012	ug/L	0.384	73	49-127				
4,4'-DDT	0.500	0.050	0.011	ug/L	0.383	77	47-130				
Aldrin	0.500	0.050	0.0086	ug/L	0.329	66	35-120				
alpha-BHC	0.500	0.050	0.0086	ug/L	0.354	71	39-121				
beta-BHC	0.500	0.050	0.025	ug/L	0.409	82	39-138				
Chlordane		0.50	0.029	ug/L	ND						
delta-BHC	0.500	0.050	0.010	ug/L	0.385	77	40-121				
Dieldrin	0.500	0.050	0.0098	ug/L	0.374	75	41-131				
Endosulfan I	0.500	0.050	0.011	ug/L	0.315	63	41-126				
Endosulfan II	0.500	0.050	0.012	ug/L	0.340	68	32-134				
Endosulfan sulfate	0.500	0.050	0.016	ug/L	0.511	102	46-131				
Endrin	0.500	0.050	0.014	ug/L	0.364	77	43-134				
Endrin aldehyde	0.500	0.050	0.016	ug/L	0.401	80	39-128				
gamma-BHC (Lindane)	0.500	0.050	0.0060	ug/L	0.366	73	68-120				

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg B
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Organochlorine Pesticides and PCBs by EPA Method 608											
LCS Analyzed: 04/14/10 (Lab Number:10D0869-BS1, Batch: 10D0869)											
Heptachlor		0.500	0.050	0.0085	ug/L	0.347	69	52-120			
Heptachlor epoxide		0.500	0.050	0.0053	ug/L	0.389	74	65-120			
Toxaphene			0.50	0.12	ug/L	ND					
Surrogate: Decachlorobiphenyl					ug/L		70	15-139			
Surrogate: Tetrachloro-m-xylene					ug/L		68	30-139			
Organochlorine Pesticides and PCBs by EPA Method 608											
Blank Analyzed: 04/13/10 (Lab Number:10D0875-BLK1, Batch: 10D0875)											
Aroclor 1016			0.060	0.038	ug/L	ND					QSU
Aroclor 1221			0.060	0.040	ug/L	ND					QSU
Aroclor 1232			0.060	0.049	ug/L	ND					QSU
Aroclor 1242			0.060	0.044	ug/L	ND					QSU
Aroclor 1248			0.060	0.036	ug/L	ND					QSU
Aroclor 1254			0.060	0.015	ug/L	ND					QSU
Aroclor 1260			0.060	0.010	ug/L	ND					QSU
Aroclor 1262			0.060	0.050	ug/L	ND					QSU
Aroclor 1268			0.060	0.024	ug/L	ND					QSU
Surrogate: Decachlorobiphenyl					ug/L		78	26-145			QSU
Surrogate: Tetrachloro-m-xylene					ug/L		69	25-152			QSU
LCS Analyzed: 04/13/10 (Lab Number:10D0875-BS1, Batch: 10D0875)											
Aroclor 1016		1.00	0.060	0.038	ug/L	1.00	100	58-141			QSU
Aroclor 1221			0.060	0.040	ug/L	ND					QSU
Aroclor 1232			0.060	0.049	ug/L	ND					QSU
Aroclor 1242			0.060	0.044	ug/L	ND					QSU
Aroclor 1248			0.060	0.036	ug/L	ND					QSU
Aroclor 1254			0.060	0.015	ug/L	ND					QSU
Aroclor 1260		1.00	0.060	0.010	ug/L	1.12	112	58-144			QSU
Aroclor 1262			0.060	0.050	ug/L	ND					QSU
Aroclor 1268			0.060	0.024	ug/L	ND					QSU
Surrogate: Decachlorobiphenyl					ug/L		89	26-145			QSU
Surrogate: Tetrachloro-m-xylene					ug/L		97	25-152			QSU

Matrix Spike Analyzed: 04/13/10 (Lab Number:10D0875-MS1, Batch: 10D0875)

QC Source Sample: RTD1040-01

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www.testamericainc.com

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10

Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Organochlorine Pesticides and PCBs by EPA Method 808

Matrix Spike Analyzed: 04/13/10 (Lab Number:10D0875-MS1, Batch: 10D0875)

QC Source Sample: RTD1040-01

Aroclor 1016	ND	1.92	0.12	0.074	ug/L	1.82	95	58-141			QSU
Aroclor 1221	ND		0.12	0.077	ug/L	ND					QSU
Aroclor 1232	ND		0.12	0.095	ug/L	ND					QSU
Aroclor 1242	ND		0.12	0.085	ug/L	ND					QSU
Aroclor 1248	ND		0.12	0.069	ug/L	ND					QSU
Aroclor 1254	ND		0.12	0.028	ug/L	ND					QSU
Aroclor 1260	ND	1.92	0.12	0.020	ug/L	1.89	88	58-144			QSU
Aroclor 1262	ND		0.12	0.096	ug/L	ND					QSU
Aroclor 1268	ND		0.12	0.046	ug/L	ND					QSU

Surrogate: Decachlorobiphenyl					ug/L		76	26-145			QSU
Surrogate: Tetrachloro-m-xylene					ug/L		98	25-152			QSU

Matrix Spike Dup Analyzed: 04/13/10 (Lab Number:10D0875-MSD1, Batch: 10D0875)

QC Source Sample: RTD1040-01

Aroclor 1016	ND	1.92	0.12	0.074	ug/L	1.73	90	58-141	5	30	QSU
Aroclor 1221	ND		0.12	0.077	ug/L	ND					QSU
Aroclor 1232	ND		0.12	0.095	ug/L	ND					QSU
Aroclor 1242	ND		0.12	0.085	ug/L	ND					QSU
Aroclor 1248	ND		0.12	0.069	ug/L	ND					QSU
Aroclor 1254	ND		0.12	0.028	ug/L	ND					QSU
Aroclor 1260	ND	1.92	0.12	0.020	ug/L	1.37	71	58-144	21	30	QSU
Aroclor 1262	ND		0.12	0.096	ug/L	ND					QSU
Aroclor 1268	ND		0.12	0.046	ug/L	NO					QSU

Surrogate: Decachlorobiphenyl					ug/L		61	26-145			QSU
Surrogate: Tetrachloro-m-xylene					ug/L		95	25-152			QSU

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% Limits	% RPD	RPD Limit	Data Qualifiers
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Total Metals by EPA 200 Series Methods

Blank Analyzed: 04/13/10 (Lab Number:10D1007-BLK1, Batch: 10D1007)

Antimony			0.0200	0.0068	mg/L	ND					
Arsenic			0.0100	0.0056	mg/L	ND					
Beryllium			0.0020	0.0002	mg/L	ND					
Cadmium			0.0010	0.0003	mg/L	ND					
Calcium			0.5	0.1	mg/L	ND					
Chromium			0.0040	0.0009	mg/L	ND					
Copper			0.0100	0.0013	mg/L	ND					
Lead			0.0050	0.0030	mg/L	ND					
Magnesium			0.200	0.043	mg/L	ND					
Nickel			0.0100	0.0013	mg/L	ND					
Selenium			0.0150	0.0087	mg/L	ND					
Silver			0.0030	0.0012	mg/L	ND					
Sodium			1.0	0.3	mg/L	ND					
Thallium			0.0200	0.0102	mg/L	ND					
Zinc			0.0100	0.0016	mg/L	ND					

LCS Analyzed: 04/13/10 (Lab Number:10D1007-BS1, Batch: 10D1007)

Antimony	0.200	0.0200	0.0068	mg/L	0.198	99	85-115
Arsenic	0.200	0.0100	0.0056	mg/L	0.203	102	85-115
Beryllium	0.200	0.0020	0.0002	mg/L	0.200	100	85-115
Cadmium	0.200	0.0050	0.0003	mg/L	0.192	96	85-115
Calcium	10.0	0.5	0.1	mg/L	9.99	100	85-115
Chromium	0.200	0.0100	0.0009	mg/L	0.199	99	85-115
Copper	0.200	0.0250	0.0013	mg/L	0.192	96	85-115
Lead	0.200	0.0050	0.0030	mg/L	0.198	99	85-115
Magnesium	10.0	0.200	0.043	mg/L	10.0	100	85-115
Nickel	0.200	0.0400	0.0013	mg/L	0.196	98	85-115
Selenium	0.200	0.0150	0.0087	mg/L	0.202	101	85-115
Silver	0.0500	0.0250	0.0012	mg/L	0.0504	101	85-115
Sodium	10.0	1.0	0.3	mg/L	9.75	97	85-115
Thallium	0.200	0.0200	0.0102	mg/L	0.199	100	85-115
Zinc	0.200	0.0200	0.0015	mg/L	0.197	98	85-115

Total Metals by EPA 200 Series Methods

Blank Analyzed: 04/13/10 (Lab Number:10D1099-BLK1, Batch: 10D1099)

Mercury			0.0002	0.0001	mg/L	ND					
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LCS Analyzed: 04/13/10 (Lab Number:10D1099-BS1, Batch: 10D1099)

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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Total Metals by EPA 200 Series Methods

LCS Analyzed: 04/13/10 (Lab Number:10D1099-BS1, Batch: 10D1099)

Mercury		0.00667	0.0002	0.0001	mg/L	0.00653	98	85-115		
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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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General Chemistry Parameters

Blank Analyzed: 04/12/10 (Lab Number:10D0971-BLK1, Batch: 10D0971)

Oil and Grease			5.0	1.4	mg/L	ND				
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LCS Analyzed: 04/12/10 (Lab Number:10D0971-BS1, Batch: 10D0971)

Oil and Grease		25.0	5.0	1.4	mg/L	23.8	94	78-114		
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General Chemistry Parameters

LCS Analyzed: 04/12/10 (Lab Number:10D1002-BS1, Batch: 10D1002)

Specific Conductance (25 C)		1000	NA	0.0	umhos/cm	1000	100	90-110		
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Duplicate Analyzed: 04/12/10 (Lab Number:10D1002-DUP1, Batch: 10D1002)

QC Source Sample: RTD1040-01

Specific Conductance (25 C)	160000		NA	0.0	umhos/cm	158000			1	20
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General Chemistry Parameters

LCS Analyzed: 04/10/10 (Lab Number:10D1046-BS1, Batch: 10D1046)

pH		7.00	NA	0.00	SU	7.02	100	99.3-100.8		
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General Chemistry Parameters

Blank Analyzed: 04/13/10 (Lab Number:10D1135-BLK1, Batch: 10D1135)

Total Dissolved Solids			10.0	4.0	mg/L	5.0				J
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LCS Analyzed: 04/13/10 (Lab Number:10D1135-BS1, Batch: 10D1135)

Total Dissolved Solids		500	10.0	4.0	mg/L	513	103	85-115		B
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General Chemistry Parameters

Blank Analyzed: 04/14/10 (Lab Number:10D1239-BLK1, Batch: 10D1239)

Total Recoverable Phenolics			0.0100	0.0050	mg/L	ND				
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LCS Analyzed: 04/14/10 (Lab Number:10D1239-BS1, Batch: 10D1239)

Total Recoverable Phenolics		0.653	0.0500	0.0250	mg/L	0.514	79	75-125		O08
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General Chemistry Parameters

Blank Analyzed: 04/17/10 (Lab Number:10D1532-BLK1, Batch: 10D1532)

Cyanide			0.0100	NR	mg/L	ND				
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LCS Analyzed: 04/17/10 (Lab Number:10D1532-BS1, Batch: 10D1532)

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2800 fax 716-691-7991
www.testamericainc.com

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFGReceived: 04/09/10
Reported: 04/29/10 10:10**LABORATORY QC DATA**

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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General Chemistry Parameters

LCS Analyzed: 04/17/10 (Lab Number:10D1632-BS1, Batch: 10D1632)

Cyanide		0.400	0.0100	NR	mg/L	0.431	108	90-110			
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General Chemistry Parameters

Blank Analyzed: 04/22/10 (Lab Number:10D1897-BLK1, Batch: 10D1897)

Total Organic Halides (Tox)			20.0	6.5	ug/L	8.4					J
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LCS Analyzed: 04/22/10 (Lab Number:10D1897-BS1, Batch: 10D1897)

Total Organic Halides (Tox)		100	20.0	6.5	ug/L	115	115	75-125			B
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General Chemistry Parameters

Blank Analyzed: 04/20/10 (Lab Number:10D1994-BLK1, Batch: 10D1994)

Chloride			1.00	0.46	mg/L	ND					
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LCS Analyzed: 04/20/10 (Lab Number:10D1994-BS1, Batch: 10D1994)

Chloride		25.0	1.00	0.46	mg/L	25.8	103	90-110			
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General Chemistry Parameters

Blank Analyzed: 04/23/10 (Lab Number:10D2194-BLK1, Batch: 10D2194)

Total Organic Carbon			1.0	0.4	mg/L	ND					
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LCS Analyzed: 04/23/10 (Lab Number:10D2194-BS1, Batch: 10D2194)

Total Organic Carbon		60.0	1.0	0.4	mg/L	60.6	101	90-110			
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2003

COUNTY HIGHWAY SUPERINTENDENT

DAVID S. ROESKE

TOWN SUPERVISOR

JOHN MCCARTHY

TOWN HIGHWAY SUPERINTENDENT

PAUL DRUM

TOTAL MILEAGE - 57.11

ALMOND ALLEGANY COUNTY



STATE SYSTEM

COUNTY SYSTEM

TOWN SYSTEM

IMPROVEMENT PROJECT

GRAVEL SURFACE = Brnc

SCALE - 2 1/2" = 1 MILE

BRIDGES

REVISED 2003
LEO GERACCI, EMS TECH.

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

JAN - 9 2010

Mr. Benjamin Reynolds
Highway Superintendent
Town of Genesee
8296 Main St., PO Box 40
Little Genesee, NY 14754

Dear Mr. Reynolds:

Re: Brine Bud # **B042-12** - Dust Suppression and Road Stabilization

We have reviewed the information submitted in your December 8, 2011 petition for the proposed beneficial use of brine from the National Fuel Gas – Beech Hill Station facility located in Wellsville, New York and the National Fuel Gas facility in Andover, New York as part of your dust control and road stabilization system. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- All vehicles transporting brine must have a valid Part 364 permit.
- Dust control and road stabilization activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied after daylight hours or used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be applied on wet roads, during rain, or when rain is imminent.
- Brine is approved for road spreading use on the roads shown in your petition. Brine may be applied a maximum of ten times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

Town of Genesee

8296 Main Street, P. O. Box 40
Little Genesee, New York 14754
Phone and Fax (585) 928-2178
Hours: Tues. & Wed. 9am-4pm
Thurs. - 9am-6pm

December 8, 2011

NYS Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Technical Support, 11th Floor
625 Broadway
Albany, New York 12233-7020

RE: BUD petition

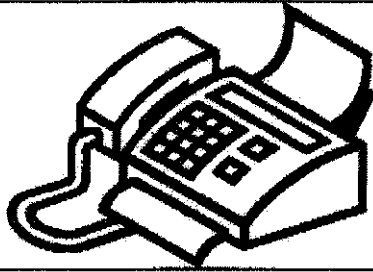
Dear Mr. Aversa,

I, Benjamin Reynolds, Genesee Highway Superintendent, do hereby authorize the use of brine on the roads indicated on the map previously sent.

Sincerely,



Benjamin Reynolds, Highway Superintendent



A facsimile from

TOWN OF GENESEE

661 County Road 5

P.O. BOX 4

LITTLE GENESEE, NY 14754

PHONE: 585-928-1578

FAX: 585-928-1578

To: Jack Aversa

Fax number:

Date: December 8, 2011

Regarding: BUD petition

Comments: If you have any questions or concerns, please contact me.

Thanks, Ben

3 pages plus cover

Town of Genesee

8296 Main Street, P. O. Box 40
Little Genesee, New York 14754
Phone and Fax (585) 928-2178
Hours: Tues. & Wed. 9am-4pm
Thurs. - 9am-6pm

December 8, 2011

#6

Road Spreading Plan

An 8 foot spreader bar, attached to a tank truck which is dedicated to the distribution of brine water, with shut-off controls in the cab of the truck will be used.

Application Restrictions: The brine water is not applied after daylight hours, within 50 feet of a stream, creek, lake or other body of water, wet roads, when it is raining, or on sections of a road having a grade exceeding 10%. Brine water is not used for road de-icing in the Town of Genesee.

#7 Storage of Brine

The Town of Genesee does not store brine.

Town of Genesee

8296 Main Street, P. O. Box 40
Little Genesee, New York 14754
Phone and Fax (585) 928-2178
Hours: Tues. & Wed. 9am-4pm
Thurs. - 9am-6pm

December 8, 2011

The name, address and telephone number of the person seeking the approval is:

Benjamin Reynolds, Highway Superintendent
PO Box 4
661 County Route 5
Little Genesee, NY 14754
585-928-1578

The physical addresses of the brine storage locations from which brine is hauled are #1 - National Fuel

Beech Hill Station
1161 Peet Road
Wellsville, New York 14895

#2 - National Fuel

2210 County Route 22
Andover, New York 14806

New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials
Bureau of Solid Waste, Reduction and Recycling, 9th Floor
625 Broadway, Albany, New York 12233-7253
Phone: (518) 402-8704 • FAX: (518) 402-9024
Website: www.dec.ny.gov



January 2009

NOTICE TO GAS AND OIL WELL & LPG STORAGE FLUID HAULERS

All gas or oil well drilling and production fluids including but not limited to brine and fracturing fluids, and brine from liquefied petroleum gas (LPG) well storage operations, transported for disposal, road spreading, reuse in another gas or oil well, or recycling must be specifically identified in Part C and D of the New York State Waste Transporter Permit Application Form. Transporters must identify the type of fluid proposed to be transported in Section C in the Non-Hazardous Industrial/Commercial box and the Disposal or Destination Facility (or Use) in Part D.

Fracture fluids obtained during flowback operations may not be spread on roads and must be disposed at facilities authorized by the Department. Such disposal facilities must be identified in Part D of the permit application. If fluids are to be transported for use or reuse at another gas or oil well, that location must be identified in Part D of the permit application.

With respect to fluids transported under a Waste Transporter Permit, only production brines or brine from LPG storage operations may be used for road spreading. Drilling, fracing, and plugging fluids are not acceptable for road spreading.

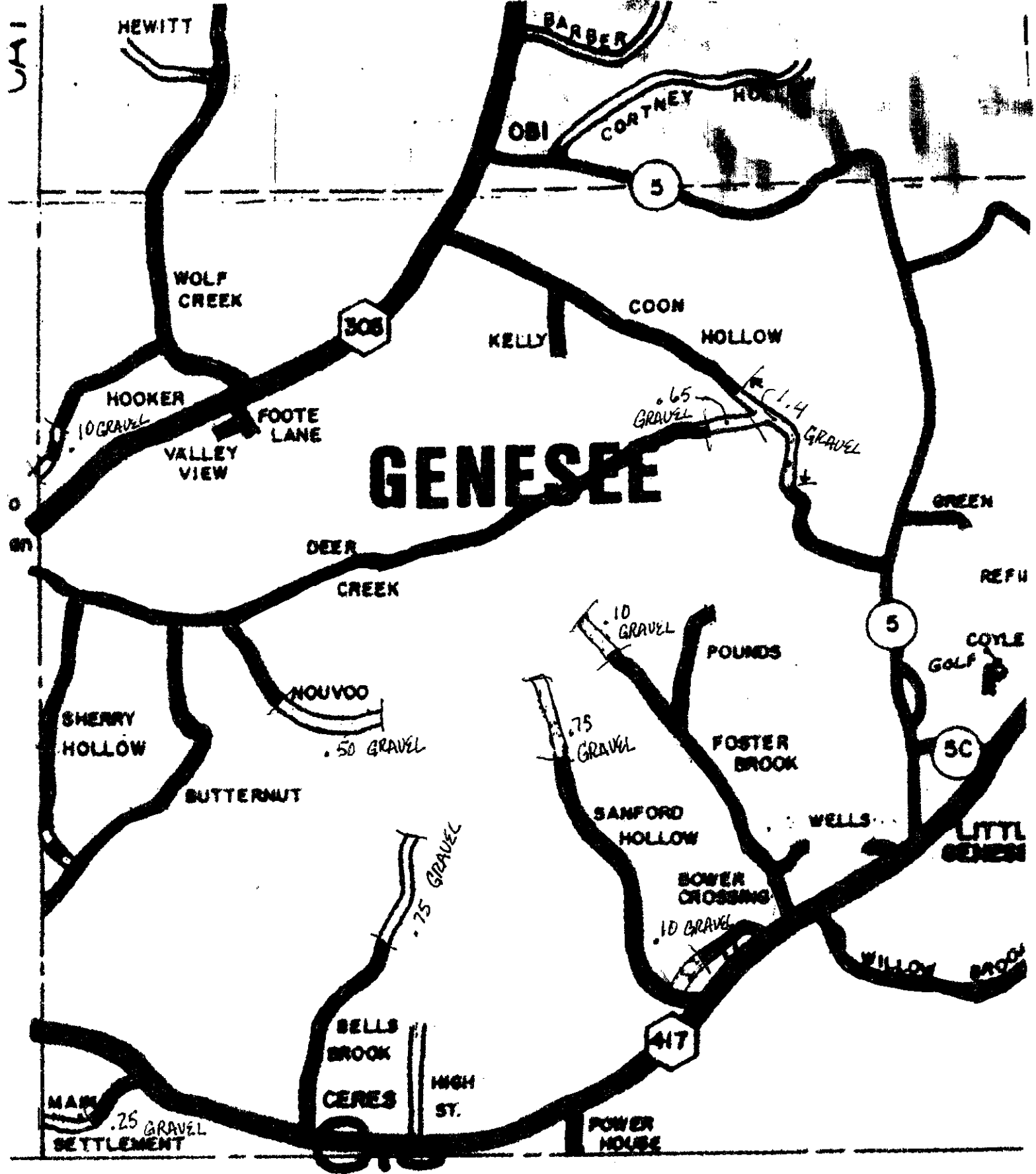
Any person, including any government entity, applying for a Part 364 permit or permit modification to use production brine from oil or gas wells or brine from LPG well storage operations for road spreading purposes (i.e. road de-icing, dust suppression, or road stabilization) must submit a petition for a beneficial use determination (BUD). If a contract hauler is applying for a Part 364 permit or permit modification to deliver brine to a government agency for road spreading purposes, that government agency must submit the BUD petition. The BUD must be granted and the Part 364 permit/modification must be issued before brine can be removed from the well or LPG storage site for road spreading purposes or storage at an offsite facility.

The BUD petition must include:

1. An original letter signed and dated by the government agency representative or other property owner authorizing the use of brine on the locations identified in below item 3.

2. The name, address and telephone number of the person, company or government official seeking the approval.
- ✓ 3. An identification (or map) of the specific roads or other areas that are to receive the brine and any brine storage locations, excluding the well site storage locations.
4. The physical address of the brine storage locations from which the brine is hauled.
- ✓ 5. For each well field or LPG storage facility, a chemical analysis of a representative sample of the brine performed by a NYSDOH approved laboratory for the following parameters: calcium, sodium, chloride, magnesium, total dissolved solids, pH, iron, barium, lead, sulfate, oil & grease, benzene, ethylbenzene, toluene, and xylene. Depending upon the analytical results, the Department may require additional analyses. (This analysis is not required for brine from a LPG well operation with a valid New York State SPDES permit.)
6. A road spreading plan that includes a description of the procedures to prevent the brine from flowing or running off into streams, creeks, lakes and other bodies of water. The plan should include:
 - a description of how the brine will be applied, including the equipment to be used and the method for controlling the rate of application. In general this should indicate that the brine is applied by use of a spreader bar or similar spray device with shut-off controls in the cab of the truck; and with vehicular equipment that is dedicated to this use or cleaned of previously transported waste materials prior to this use;
 - the proposed rate and frequency of application;
 - a description of application restrictions. [For dust control and road stabilization use] this description should indicate that the brine is not applied: after daylight hours; within 50 feet of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent. For road deicing use, this description should indicate that the brine is applied in accordance NYSDOT Guidelines for Anti-Icing with Liquids and include any other restrictions.
7. Where applicable, a brine storage plan that includes: **WE DO NOT STORE BRINE**
 - a description of the type, material, size, and number of storage tanks and the maximum anticipated storage;
 - procedures for run off and run-on control;
 - provisions for secondary containment; and
 - a contingency plan.

If you have any questions concerning your permit, please feel free to call this office at (518) 402-8707. You may also visit our public website at the address above for information and forms to download or print.



TOWN OF GENESSEE

TOTAL 4.6 Miles

PAVED ROAD
 GRAVEL ROAD

Analytical Report

Work Order: RTD1040

Project Description

Brine - Priority Pollutant Analysis

For:

James Clark

National Fuel & Gas - Buffalo, NY

365 Mineral Springs Rd Bldg 8

Buffalo, NY 14221

Melissa Deyo

Melissa Deyo For Paul Morrow

Project Manager

melissa.deyo@testamericainc.com

Thursday, April 29, 2010

RECEIVED

SEP 19 2011

UNITED STATES
TECHNICAL SUPPORT

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

Received: 04/09/10
 Reported: 04/29/10 10:10

TestAmerica Buffalo Current Certifications

As of 12/21/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA, NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP, SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA, RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington*	NELAP CWA, RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA, RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10

Reported: 04/29/10 10:10

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
D02	Dilution required due to sample matrix effects
D08	Dilution required due to high concentration of target analyte(s)
D15	Sample weight / volume has been reduced to eliminate matrix interference. Reporting limits have been adjusted accordingly.
E	Concentration exceeds the calibration range and therefore result is semi-quantitative.
HFT	The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
QSU	Sulfur (EPA 3660) clean-up performed on extract.
S9	Unable to digest full amount of sample due to matrix problem.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water)						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		
<u>Volatile Organic Compounds</u>										
Benzene	36		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloromethane	2.7	J	5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Toluene	5.2		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
<u>Acid and Base/Neutral Extractables by EPA Method 625</u>										
2,4-Dimethylphenol	0.15	J	4.9	0.13	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Naphthalene	0.17	J	4.9	0.079	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenol	13		4.9	0.12	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
<u>Organochlorine Pesticides and PCBs by EPA Method 608</u>										
gamma-BHC (Lindane) [2C]	0.028	J	0.049	0.0058	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
<u>Total Metals by EPA 200 Series Methods</u>										
Arsenic	0.0145		0.0100	0.0056	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Beryllium	0.0114		0.0020	0.0002	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Cadmium	0.0022		0.0010	0.0003	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Calcium	40500	D08	50.0	10.0	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Copper	0.0070	J	0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Magnesium	4390	D08	4.00	0.868	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Sodium	19100	D08	100	32.4	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Zinc	0.0378		0.0100	0.0015	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
<u>General Chemistry Parameters</u>										
Oil and Grease	3.0	J	5.0	1.4	mg/L	1.00	04/12/10 11:40	JME	10D0971	1664A
Chloride	220000	D08	20000	9200	mg/L	20000	04/20/10 15:04	KLD	10D1994	4500-CL E
pH	5.78	HFT	0.00500	0.00	SU	1.00	04/10/10 00:07	JFR	10D1046	9040
Total Recoverable Phenolics	0.0099	J	0.0100	0.0050	mg/L	1.00	04/14/10 16:36	KLD	10D1239	420.4
Total Dissolved Solids	308000	D08, B	2000	800	mg/L	200	04/13/10 22:00	AMP	10D1135	2540C
Specific Conductance (25 C)	160000		NR	0.0	umhos/cm	1.00	04/12/10 10:43	KLD	10D1002	120.1
Total Organic Carbon	127	D08	40.0	17.4	mg/L	40.0	04/22/10 21:15	KLD	10D2194	9060
Total Organic Halides (Tox)	9330	D15, B	5000	1630	ug/L	1.00	04/22/10 10:37	JMM	10D1897	9020

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
BRINE	RTD1040-01	Water	04/09/10 11:15	04/09/10 15:55	

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water)						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		
Volatile Organic Compounds										
1,1,1-Trichloroethane	ND		5.0	0.73	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1,2,2-Tetrachloroethane	ND		5.0	1.2	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1-Dichloroethane	ND		5.0	0.59	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1-Dichloroethene	ND		5.0	0.85	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloroethane	ND		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloropropane	ND		5.0	0.61	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
2-Chloroethyl vinyl ether	ND		25	3.7	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Benzene	36		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromodichloromethane	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromoform	ND		5.0	0.47	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromomethane	ND		5.0	1.2	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Carbon Tetrachloride	ND		5.0	0.51	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chlorobenzene	ND		5.0	0.48	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chlorodibromomethane	ND		5.0	0.41	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloroethane	ND		5.0	0.87	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloroform	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloromethane	2.7	J	5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
cis-1,3-Dichloropropene	ND		5.0	0.57	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Ethylbenzene	ND		5.0	0.46	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Methylene Chloride	ND		5.0	0.81	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Tetrachloroethene	ND		5.0	0.34	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Toluene	5.2		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Trichloroethene	ND		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Trichlorofluoromethane	ND		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Vinyl chloride	ND		5.0	0.75	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloroethane-d4	109 %		Surr Limits: (88-132%)				04/13/10 07:07	TRB	10D0944	624
4-Bromofluorobenzene	93 %		Surr Limits: (78-122%)				04/13/10 07:07	TRB	10D0944	624
Toluene-d8	93 %		Surr Limits: (87-110%)				04/13/10 07:07	TRB	10D0944	624

Acid and Base/Neutral Extractables by EPA Method 625

1,2,4-Trichlorobenzene	ND		9.8	0.48	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,2-Dichlorobenzene	ND		9.8	0.14	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,2-Diphenylhydrazine	ND		9.8	0.062	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,3-Dichlorobenzene	ND		9.8	0.067	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,4-Dichlorobenzene	ND		9.8	0.088	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4,6-Trichlorophenol	ND		4.9	0.23	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dichlorophenol	ND		4.9	0.29	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dimethylphenol	0.15	J	4.9	0.13	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dinitrophenol	ND		9.8	0.82	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dinitrotoluene	ND		4.9	0.26	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,6-Dinitrotoluene	ND		4.9	0.70	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Chloronaphthalene	ND		4.9	0.066	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Chlorophenol	ND		4.9	0.15	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Nitrophenol	ND		4.9	0.14	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

www.testamericainc.com

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		
Acid and Base/Neutral Extractables by EPA Method 625 - cont.										
3,3'-Dichlorobenzidine	ND		4.9	0.81	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4,6-Dinitro-2-methylphenol	ND		9.8	0.75	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Bromophenyl phenyl ether	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Chloro-3-methylphenol	ND		4.9	0.55	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Chlorophenyl phenyl ether	ND		4.9	0.20	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Nitrophenol	ND		9.8	1.3	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Acenaphthene	ND		4.9	0.059	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Acenaphthylene	ND		4.9	0.033	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Anthracene	ND		4.9	0.051	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzidine	ND	L	78	2.5	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(a)anthracene	ND		4.9	0.042	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(a)pyrene	ND		4.9	0.057	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(b)fluoranthene	ND		4.9	0.060	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(ghi)perylene	ND		4.9	0.098	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(k)fluoranthene	ND		4.9	0.041	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-chloroethoxy)methane	ND		4.9	0.083	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-chloroethyl)ether	ND		4.9	1.1	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,2'-Oxybis(1-Chloropropane)	ND		4.9	0.084	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-ethylhexyl)phthalate	ND		9.8	0.85	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Butyl benzyl phthalate	ND		4.9	1.3	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Chrysene	ND		4.9	0.035	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Dibenzo(a,h)anthracene	ND		4.9	0.054	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Diethyl phthalate	ND	L	4.9	0.17	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Dimethyl phthalate	ND	L	4.9	0.16	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Di-n-butyl phthalate	ND	L	4.9	0.92	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Di-n-octyl phthalate	ND		4.9	4.4	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Fluoranthene	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Fluorene	ND		4.9	0.042	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorobenzene	ND		4.9	0.27	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorobutadiene	ND		4.9	0.60	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorocyclopentadiene	ND		4.9	0.44	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachloroethane	ND		4.9	0.47	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Indeno(1,2,3-cd)pyrene	ND		4.9	0.18	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Isophorone	ND		4.9	0.15	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Naphthalene	0.17	J	4.9	0.079	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Nitrobenzene	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodimethylamine	ND		9.8	0.94	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodi-n-propylamine	ND		4.9	0.23	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodiphenylamine	ND	L	4.9	0.39	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Pentachlorophenol	ND		9.8	0.40	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenanthrene	ND	L	4.9	0.070	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenol	13		4.9	0.12	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Pyrene	ND	L	4.9	0.040	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		

Acid and Base/Neutral Extractables by EPA Method 625 - cont.

2-Fluorophenol	85 %						04/13/10 08:29	MAF	10D0825	625
Phenol-d5	103 %						04/13/10 08:29	MAF	10D0825	625
Nitrobenzene-d5	97 %						04/13/10 08:29	MAF	10D0825	625
2-Fluorobiphenyl	84 %						04/13/10 08:29	MAF	10D0825	625
2,4,6-Tribromophenol	113 %						04/13/10 08:29	MAF	10D0825	625
p-Terphenyl-d14	55 %						04/13/10 08:29	MAF	10D0825	625

Organochlorine Pesticides and PCBs by EPA Method 608

Aroclor 1016	ND	QSU	0.058	0.037	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1221	ND	QSU	0.058	0.039	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1232	ND	QSU	0.058	0.048	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1242	ND	QSU	0.058	0.043	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1248	ND	QSU	0.058	0.035	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1254	ND	QSU	0.058	0.014	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1260	ND	QSU	0.058	0.010	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1262	ND	QSU	0.058	0.048	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Aroclor 1268	ND	QSU	0.058	0.023	ug/L	1.00	04/13/10 07:53	JxM	10D0875	608
Decachlorobiphenyl	49 %	QSU	Surr Limits: (26-145%)				04/13/10 07:53	JxM	10D0875	608
Tetrachloro-m-xylene	79 %	QSU	Surr Limits: (25-152%)				04/13/10 07:53	JxM	10D0875	608
4,4'-DDD [2C]	ND		0.049	0.0089	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
4,4'-DDE [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
4,4'-DDT [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Aldrin [2C]	ND		0.049	0.0064	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
alpha-BHC [2C]	ND		0.049	0.0064	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
beta-BHC [2C]	ND		0.049	0.024	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Chlordane [2C]	ND		0.49	0.028	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
delta-BHC [2C]	ND		0.049	0.0098	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Dieldrin [2C]	ND		0.049	0.0095	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan I [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan II [2C]	ND		0.049	0.012	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endosulfan sulfate [2C]	ND		0.049	0.015	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endrin [2C]	ND		0.049	0.013	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Endrin aldehyde [2C]	ND		0.049	0.016	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
gamma-BHC (Lindane) [2C]	0.028	J	0.049	0.0058	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Heptachlor [2C]	ND		0.049	0.0083	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Heptachlor epoxide [2C]	ND		0.049	0.0051	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Toxaphene [2C]	ND		0.49	0.12	ug/L	1.00	04/15/10 13:23	DGB	10D0869	608
Decachlorobiphenyl [2C]	21 %		Surr Limits: (15-139%)				04/15/10 13:23	DGB	10D0869	608
Tetrachloro-m-xylene [2C]	61 %		Surr Limits: (30-139%)				04/15/10 13:23	DGB	10D0869	608

Total Metals by EPA 200 Series Methods

Antimony	ND	D02	0.400	0.136	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Arsenic	0.0145		0.0100	0.0056	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Beryllium	0.0114		0.0020	0.0002	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Cadmium	0.0022		0.0010	0.0003	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Calcium	40500	D08	50.0	10.0	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Chromium	ND		0.0040	0.0009	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Copper	0.0070	J	0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

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National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		

Total Metals by EPA 200 Series Methods - cont.

Lead	ND	D02	0.0250	0.0150	mg/L	5.00	04/14/10 10:53	DAN	10D1007	200.7
Magnesium	4390	D08	4.00	0.868	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Nickel	ND		0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Selenium	ND	D02	0.300	0.174	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Silver	ND		0.0030	0.0012	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Sodium	19100	D08	100	32.4	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Thallium	ND	D02	0.100	0.0512	mg/L	5.00	04/14/10 10:53	DAN	10D1007	200.7
Zinc	0.0378		0.0100	0.0015	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Mercury	ND	S9	0.0012	0.0007	mg/L	1.00	04/13/10 17:12	MXM	10D1099	245.1

General Chemistry Parameters

Oil and Grease	3.0	J	5.0	1.4	mg/L	1.00	04/12/10 11:40	JME	10D0971	1664A
Chloride	220000	D08	20000	9200	mg/L	20000	04/20/10 15:04	KLD	10D1994	4500-CL E
Cyanide	ND		0.0100	NR	mg/L	1.00	04/17/10 11:05	JME	10D1532	335.4
pH	5.78	HFT	0.00500	0.00	SU	1.00	04/10/10 00:07	JFR	10D1046	9040
Total Recoverable Phenolics	0.0099	J	0.0100	0.0050	mg/L	1.00	04/14/10 16:36	KLD	10D1239	420.4
Total Dissolved Solids	308000	D08, B	2000	800	mg/L	200	04/13/10 22:00	AMP	10D1135	2540C
Specific Conductance (25 C)	160000		NA	0.0	umhos/cm	1.00	04/12/10 10:43	KLD	10D1002	120.1
Total Organic Carbon	127	D08	40.0	17.4	mg/L	40.0	04/22/10 21:15	KLD	10D2194	9060
Total Organic Halides (Tox)	9330	D15, B	5000	1630	ug/L	1.00	04/22/10 10:37	JMM	10D1897	9020

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Work Order: RTD1040

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Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	WVVol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Acid and Base/Neutral Extractables by EPA Method 625									
625	10D0825	RTD1040-01	1,020.00	mL	1.00	mL	04/10/10 09:27	LTT	3510C MB
General Chemistry Parameters									
120.1	10D1002	RTD1040-01	50.00	mL	50.00	mL	04/12/10 10:43	KLD	No prep Conductance
1664A	10D0971	RTD1040-01	1,010.00	mL	1,000.00	mL	04/12/10 11:40	JME	No prep Oil and Grease
2540C	10D1135	RTD1040-01	100.00	mL	100.00	mL	04/13/10 22:00	MDM	Solids
335.4	10D1532	RTD1040-01	50.00	mL	50.00	mL	04/16/10 14:05	AMP	Cn Digestion
420.4	10D1239	RTD1040-01	50.00	mL	50.00	mL	04/14/10 12:38	JME	TRP Distillation
4500-CL E	10D1994	RTD1040-01	2.00	mL	2.00	mL	04/20/10 13:04	KLD	No Prep Chloride
9020	10D1897	RTD1040-01	0.40	mL	100.00	mL	04/20/10 12:53	JMM	No prep TOX
9040	10D1046	RTD1040-01	1.00	mL	1.00	mL	04/10/10 00:07	JFR	pH
9060	10D2194	RTD1040-01	40.00	mL	40.00	mL	04/22/10 16:33	KLD	No prep Carbon
Organochlorine Pesticides and PCBs by EPA Method 608									
608	10D0875	RTD1040-01	1,030.00	mL	2.00	mL	04/12/10 05:00	BML	3510C GC
608	10D0869	RTD1040-01	1,030.00	mL	10.00	mL	04/11/10 09:00	KMB	3510C GC
Total Metals by EPA 200 Series Methods									
200.7	10D1007	RTD1040-01	50.00	mL	50.00	mL	04/13/10 07:45	KCW	3005A
245.1	10D1099	RTD1040-01	5.00	mL	50.00	mL	04/13/10 13:30	MXM	7470A
Volatile Organic Compounds									
624	10D0944	RTD1040-01	5.00	mL	5.00	mL	04/12/10 10:54	TRB	5030B MS

National Fuel & Gas - Buffalo, NY
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Project: Brine - Priority Pollutant Analysis
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Received: 04/09/10
 Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds</u>										
Blank Analyzed: 04/12/10 (Lab Number:10D0944-BLK1, Batch: 10D0944)										
1,1,1-Trichloroethane			5.0	0.38	ug/L	ND				
1,1,2,2-Tetrachloroethane			5.0	0.26	ug/L	ND				
1,1,2-Trichloroethane			5.0	0.48	ug/L	ND				
1,1-Dichloroethane			5.0	0.59	ug/L	ND				
1,1-Dichloroethene			5.0	0.85	ug/L	ND				
1,2-Dichlorobenzene			5.0	0.44	ug/L	ND				
1,2-Dichloroethane			5.0	0.60	ug/L	ND				
1,2-Dichloropropane			5.0	0.61	ug/L	ND				
1,3-Dichlorobenzene			5.0	0.54	ug/L	ND				
1,4-Dichlorobenzene			5.0	0.51	ug/L	ND				
2-Chloroethyl vinyl ether			25	1.8	ug/L	ND				
Benzene			5.0	0.60	ug/L	ND				
Bromodichloromethane			5.0	0.54	ug/L	ND				
Bromoform			5.0	0.47	ug/L	ND				
Bromomethane			5.0	1.2	ug/L	ND				
Carbon Tetrachloride			5.0	0.51	ug/L	ND				
Chlorobenzene			5.0	0.48	ug/L	ND				
Chlorodibromomethane			5.0	0.41	ug/L	ND				
Chloroethane			5.0	0.87	ug/L	ND				
Chloroform			5.0	0.54	ug/L	ND				
Chloromethane			5.0	0.64	ug/L	ND				
cis-1,3-Dichloropropene			5.0	0.33	ug/L	ND				
Ethylbenzene			5.0	0.46	ug/L	ND				
Methylene Chloride			5.0	0.81	ug/L	ND				
Tetrachloroethene			5.0	0.34	ug/L	ND				
Toluene			5.0	0.45	ug/L	ND				
trans-1,2-Dichloroethene			5.0	0.59	ug/L	ND				
trans-1,3-Dichloropropene			5.0	0.44	ug/L	ND				
Trichloroethene			5.0	0.60	ug/L	ND				
Trichlorofluoromethane			5.0	0.45	ug/L	ND				
Vinyl chloride			5.0	0.75	ug/L	ND				
<i>Surrogate:</i>					ug/L		96	88-132		
<i>1,2-Dichloroethane-d4</i>										
<i>Surrogate:</i>					ug/L		96	78-122		
<i>4-Bromofluorobenzene</i>										
<i>Surrogate: Toluene-d8</i>					ug/L		99	87-110		

LCS Analyzed: 04/12/10 (Lab Number:10D0944-BS1, Batch: 10D0944)

National Fuel & Gas - Buffalo, NY
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 Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds											
LCS Analyzed: 04/12/10 (Lab Number:10D0944-BS1, Batch: 10D0944)											
1,1,1-Trichloroethane		20.0	5.0	0.38	ug/L	18.5	93	75-125			
1,1,1,2-Tetrachloroethane		20.0	5.0	0.26	ug/L	17.0	85	61-140			
1,1,2-Trichloroethane		20.0	5.0	0.48	ug/L	18.6	93	71-129			
1,1-Dichloroethane		20.0	5.0	0.59	ug/L	19.0	95	73-128			
1,1-Dichloroethene		20.0	5.0	0.85	ug/L	18.7	94	51-150			
1,2-Dichlorobenzene		20.0	5.0	0.44	ug/L	20.7	103	63-137			
1,2-Dichloroethane		20.0	5.0	0.60	ug/L	19.3	97	68-132			
1,2-Dichloropropane		20.0	5.0	0.61	ug/L	19.6	98	34-166			
1,3-Dichlorobenzene		20.0	5.0	0.54	ug/L	21.0	105	73-127			
1,4-Dichlorobenzene		20.0	5.0	0.51	ug/L	20.0	100	63-137			
2-Chloroethyl vinyl ether		100	25	1.8	ug/L	103	103	1-224			
Benzene		20.0	5.0	0.60	ug/L	19.5	97	64-136			
Bromodichloromethane		20.0	5.0	0.54	ug/L	19.4	97	66-135			
Bromoform		20.0	5.0	0.47	ug/L	16.9	85	71-129			
Bromomethane		20.0	5.0	1.2	ug/L	18.8	94	14-186			
Carbon Tetrachloride		20.0	5.0	0.51	ug/L	18.2	91	73-127			
Chlorobenzene		20.0	5.0	0.48	ug/L	19.3	96	66-134			
Chlorodibromomethane		20.0	5.0	0.41	ug/L	18.2	91	68-133			
Chloroethane		20.0	5.0	0.87	ug/L	17.0	85	38-162			
Chloroform		20.0	5.0	0.54	ug/L	18.9	94	68-133			
Chloromethane		20.0	5.0	0.64	ug/L	20.0	100	1-204			
cis-1,3-Dichloropropene		20.0	5.0	0.33	ug/L	19.0	95	24-176			
Ethylbenzene		20.0	5.0	0.46	ug/L	19.1	96	59-141			
Methylene Chloride		20.0	5.0	0.81	ug/L	20.1	101	61-140			
Tetrachloroethene		20.0	5.0	0.34	ug/L	18.4	92	74-127			
Toluene		20.0	5.0	0.45	ug/L	18.9	95	75-126			
trans-1,2-Dichloroethene		20.0	5.0	0.59	ug/L	19.2	96	70-131			
trans-1,3-Dichloropropene		20.0	5.0	0.44	ug/L	18.0	90	50-150			
Trichloroethene		20.0	5.0	0.60	ug/L	18.1	90	67-134			
Trichlorofluoromethane		20.0	5.0	0.45	ug/L	18.9	94	48-152			
Vinyl chloride		20.0	5.0	0.75	ug/L	19.5	97	4-196			
Surrogate:					ug/L		95	88-132			
1,2-Dichloroethane-d4					ug/L		99	78-122			
Surrogate:					ug/L		98	87-110			
4-Bromofluorobenzene					ug/L		98	87-110			
Surrogate: Toluene-d8					ug/L		98	87-110			

National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
 Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 04/13/10 (Lab Number:10D0825-BLK1, Batch: 10D0825)											
1,2,4-Trichlorobenzene			10	0.49	ug/L	ND					
1,2-Dichlorobenzene			10	0.14	ug/L	ND					
1,2-Diphenylhydrazine			10	0.063	ug/L	ND					
1,3-Dichlorobenzene			10	0.069	ug/L	ND					
1,4-Dichlorobenzene			10	0.090	ug/L	ND					
2,4,6-Trichlorophenol			5.0	0.23	ug/L	ND					
2,4-Dichlorophenol			5.0	0.30	ug/L	ND					
2,4-Dimethylphenol			5.0	0.13	ug/L	ND					
2,4-Dinitrophenol			10	0.84	ug/L	ND					
2,4-Dinitrotoluene			5.0	0.26	ug/L	ND					
2,6-Dinitrotoluene			5.0	0.72	ug/L	ND					
2-Chloronaphthalene			5.0	0.068	ug/L	ND					
2-Chlorophenol			5.0	0.16	ug/L	ND					
2-Nitrophenol			5.0	0.14	ug/L	ND					
3,3'-Dichlorobenzidine			5.0	0.82	ug/L	ND					
4,6-Dinitro-2-methylphenol			10	0.76	ug/L	ND					
4-Bromophenyl phenyl ether			5.0	0.11	ug/L	ND					
4-Chloro-3-methylphenol			5.0	0.56	ug/L	ND					
4-Chlorophenyl phenyl ether			5.0	0.21	ug/L	ND					
4-Nitrophenol			10	1.3	ug/L	ND					
Acenaphthene			5.0	0.060	ug/L	ND					
Acenaphthylene			5.0	0.034	ug/L	ND					
Anthracene			5.0	0.052	ug/L	ND					
Benzidine			80	2.5	ug/L	ND					
Benzo(a)anthracene			5.0	0.043	ug/L	ND					
Benzo(a)pyrene			5.0	0.058	ug/L	ND					
Benzo(b)fluoranthene			5.0	0.062	ug/L	ND					
Benzo(ghi)perylene			5.0	0.10	ug/L	0.24					J
Benzo(k)fluoranthene			5.0	0.042	ug/L	ND					
Bis(2-chloroethoxy)methane			5.0	0.085	ug/L	ND					
Bis(2-chloroethyl)ether			5.0	1.1	ug/L	ND					
2,2'-Oxybis(1-Chloropropane)			5.0	0.086	ug/L	ND					
Bis(2-ethylhexyl)phthalate			10	0.86	ug/L	ND					
Butyl benzyl phthalate			5.0	1.3	ug/L	ND					

National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
 Reported: 04/29/10 10:10

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 Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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Acid and Base/Neutral Extractables by EPA Method 625

Blank Analyzed: 04/13/10 (Lab Number:10D0825-BLK1, Batch: 10D0825)

Chrysene			5.0	0.036	ug/L	ND				
Dibenzo(a,h)anthracene			5.0	0.055	ug/L	0.33				J
Diethyl phthalate			5.0	0.17	ug/L	ND				
Dimethyl phthalate			5.0	0.17	ug/L	ND				
Di-n-butyl phthalate			5.0	0.94	ug/L	ND				
Di-n-octyl phthalate			5.0	4.5	ug/L	ND				
Fluoranthene			5.0	0.11	ug/L	ND				
Fluorene			5.0	0.043	ug/L	ND				
Hexachlorobenzene			5.0	0.28	ug/L	ND				
Hexachlorobutadiene			5.0	0.62	ug/L	ND				
Hexachlorocyclopentadiene			5.0	0.45	ug/L	ND				
Hexachloroethane			5.0	0.48	ug/L	ND				
Indeno(1,2,3-cd)pyrene			5.0	0.19	ug/L	ND				
Isophorone			5.0	0.16	ug/L	ND				
Naphthalene			5.0	0.080	ug/L	ND				
Nitrobenzene			5.0	0.11	ug/L	ND				
N-Nitrosodimethylamine			10	0.96	ug/L	ND				
N-Nitrosodi-n-propylamine			5.0	0.23	ug/L	ND				
N-Nitrosodiphenylamine			5.0	0.40	ug/L	ND				
Pentachlorophenol			10	0.41	ug/L	ND				
Phenanthrene			5.0	0.071	ug/L	ND				
Phenol			5.0	0.12	ug/L	ND				
Pyrene			5.0	0.041	ug/L	ND				

Sumogate:					ug/L		53	17-120		
2-Fluorophenol										
Sumogate: Phenol-d5					ug/L		40	10-120		
Sumogate:					ug/L		96	42-120		
Nitrobenzene-d5										
Sumogate:					ug/L		96	44-120		
2-Fluorobiphenyl										
Sumogate:					ug/L		106	49-122		
2,4,6-Tribromophenol										
Sumogate:					ug/L		108	22-125		
p-Terphenyl-d14										

LCS Analyzed: 04/13/10 (Lab Number:10D0825-BS1, Batch: 10D0825)

1,2,4-Trichlorobenzene		50.0	10	0.49	ug/L	39.3	79	44-142		
1,2-Dichlorobenzene		50.0	10	0.14	ug/L	38.7	77	32-129		
1,2-Diphenylhydrazine			10	0.063	ug/L	60.9		47-146		
1,3-Dichlorobenzene		50.0	10	0.069	ug/L	37.2	74	1-172		

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625										
LCS Analyzed: 04/13/10 (Lab Number:10D0825-BS1, Batch: 10D0825)										
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	37.8	76	20-124		
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	61.3	123	37-144		
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	54.7	109	39-135		
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	48.3	97	32-119		
2,4-Dinitrophenol		50.0	10	0.84	ug/L	39.4	79	1-191		
2,4-Dinitrotoluene		50.0	5.0	0.26	ug/L	63.9	128	39-139		
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	66.0	132	50-158		
2-Chloronaphthalene		50.0	5.0	0.068	ug/L	51.2	102	60-118		
2-Chlorophenol		50.0	5.0	0.16	ug/L	46.2	92	23-134		
2-Nitrophenol		50.0	5.0	0.14	ug/L	53.6	107	29-182		
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	85.3	171	1-262		E
4,6-Dinitro-2-methylphenol		50.0	10	0.76	ug/L	66.9	134	1-181		
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	59.0	118	53-127		
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	59.8	120	22-147		
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	55.9	112	25-158		
4-Nitrophenol		50.0	10	1.3	ug/L	28.9	58	1-132		
Acenaphthene		50.0	5.0	0.060	ug/L	55.0	110	47-145		
Acenaphthylene		50.0	5.0	0.034	ug/L	56.9	114	33-145		
Anthracene		50.0	5.0	0.052	ug/L	62.5	125	27-133		
Benzidine		50.0	80	2.5	ug/L	118	237	1-120		L1,E
Benzo(a)anthracene		50.0	5.0	0.043	ug/L	60.3	121	33-143		
Benzo(a)pyrene		50.0	5.0	0.058	ug/L	61.0	122	17-163		
Benzo(b)fluoranthene		50.0	5.0	0.062	ug/L	55.1	110	24-159		
Benzo(ghi)perylene		50.0	5.0	0.10	ug/L	66.4	133	1-219		B
Benzo(k)fluoranthene		50.0	5.0	0.042	ug/L	52.1	104	11-162		
Bis(2-chloroethoxy)methane		50.0	5.0	0.085	ug/L	46.0	92	33-184		
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	42.0	84	12-158		
2,2'-Oxybis(1-Chloropropane)		50.0	5.0	0.086	ug/L	43.6	87	36-166		
Bis(2-ethylhexyl)phthalate		50.0	10	0.86	ug/L	63.5	127	8-158		
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	67.3	135	1-152		
Chrysene		50.0	5.0	0.036	ug/L	62.3	125	17-168		
Dibenzo(a,h)anthracene		50.0	5.0	0.055	ug/L	62.7	125	1-227		B
Diethyl phthalate		50.0	5.0	0.17	ug/L	62.5	125	1-114		L1
Dimethyl phthalate		50.0	5.0	0.17	ug/L	57.2	114	1-112		L1

National Fuel & Gas - Buffalo, NY
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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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Acid and Base/Neutral Extractables by EPA Method 625

LCS Analyzed: 04/13/10 (Lab Number:10D0825-BS1, Batch: 10D0825)

Di-n-butyl phthalate		50.0	5.0	0.94	ug/L	66.9	134	1-118		L1
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	60.8	122	4-146		
Fluoranthene		50.0	5.0	0.11	ug/L	62.4	125	26-137		
Fluorene		50.0	5.0	0.043	ug/L	58.7	117	59-121		
Hexachlorobenzene		50.0	5.0	0.28	ug/L	55.8	112	1-152		
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	37.6	75	24-116		
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	32.1	64	5-120		
Hexachloroethane		50.0	5.0	0.48	ug/L	39.2	78	40-113		
Indeno(1,2,3-cd)pyrene		50.0	5.0	0.19	ug/L	64.5	129	1-171		
Isophorone		50.0	5.0	0.16	ug/L	48.4	97	21-196		
Naphthalene		50.0	5.0	0.080	ug/L	45.9	92	21-133		
Nitrobenzene		50.0	5.0	0.11	ug/L	46.5	93	35-180		
N-Nitrosodimethylamine		50.0	10	0.96	ug/L	27.3	55	19-120		
N-Nitrosodi-n-propylamine		50.0	5.0	0.23	ug/L	51.2	102	1-230		
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	72.8	146	54-125		L1
Pentachlorophenol		50.0	10	0.41	ug/L	64.1	128	14-176		
Phenanthrene		50.0	5.0	0.071	ug/L	62.3	125	54-120		L1
Phenol		50.0	5.0	0.12	ug/L	22.0	44	5-112		
Pyrene		50.0	5.0	0.041	ug/L	64.0	128	52-115		L1

Surrogate:

2-Fluorophenol

Surrogate: Phenol-d5

Surrogate:

Nitrobenzene-d5

Surrogate:

2-Fluorobiphenyl

Surrogate:

2,4,6-Tribromophenol

Surrogate:

p-Terphenyl-d14

LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)

1,2,4-Trichlorobenzene		50.0	10	0.49	ug/L	37.8	76	44-142	4	34
1,2-Dichlorobenzene		50.0	10	0.14	ug/L	37.6	75	32-129	3	38
1,2-Diphenylhydrazine			10	0.063	ug/L	58.9		47-146	3	20
1,3-Dichlorobenzene		50.0	10	0.069	ug/L	35.9	72	1-172	4	37
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	36.7	73	20-124	3	40
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	58.9	118	37-144	4	20
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	53.5	107	39-135	2	23
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	49.5	99	32-119	2	18

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National Fuel & Gas - Buffalo, NY
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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)											
2,4-Dinitrophenol		50.0	10	0.84	ug/L	39.2	78	1-191	0.5	29	
2,4-Dinitrotoluene		50.0	5.0	0.26	ug/L	62.6	125	39-139	2	20	
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	62.8	126	50-158	5	17	
2-Chloronaphthalene		50.0	5.0	0.068	ug/L	48.9	98	60-118	5	30	
2-Chlorophenol		50.0	5.0	0.16	ug/L	44.7	89	23-134	3	26	
2-Nitrophenol		50.0	5.0	0.14	ug/L	51.2	102	29-182	5	28	
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	85.0	170	1-262	0.4	31	E
4,6-Dinitro-2-methylphenol		50.0	10	0.76	ug/L	66.6	133	1-181	0.5	30	
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	56.4	113	53-127	5	16	
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	60.0	120	22-147	0.4	16	
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	53.5	107	25-158	4	15	
4-Nitrophenol		50.0	10	1.3	ug/L	28.5	57	1-132	1	24	
Acenaphthene		50.0	5.0	0.060	ug/L	52.8	106	47-145	4	25	
Acenaphthylene		50.0	5.0	0.034	ug/L	54.6	109	33-145	4	22	
Anthracene		50.0	5.0	0.052	ug/L	60.4	121	27-133	3	15	
Benzidine		50.0	80	2.5	ug/L	127	254	1-120	7	50	L1,E
Benzo(a)anthracene		50.0	5.0	0.043	ug/L	58.4	117	33-143	3	15	
Benzo(a)pyrene		50.0	5.0	0.058	ug/L	58.7	117	17-163	4	15	
Benzo(b)fluoranthene		50.0	5.0	0.062	ug/L	52.6	105	24-159	5	17	
Benzo(ghi)perylene		50.0	5.0	0.10	ug/L	64.8	130	1-219	2	19	B
Benzo(k)fluoranthene		50.0	5.0	0.042	ug/L	51.4	103	11-162	1	19	
Bis(2-chloroethoxy)methane		50.0	5.0	0.085	ug/L	43.9	88	33-184	5	23	
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	40.6	81	12-158	3	33	
2,2'-Oxybis(1-Chloropropane)		50.0	5.0	0.086	ug/L	41.6	83	36-166	5	36	
Bis(2-ethylhexyl)phthalate		50.0	10	0.86	ug/L	62.2	124	8-158	2	15	
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	65.2	130	1-152	3	15	
Chrysene		50.0	5.0	0.036	ug/L	60.3	121	17-168	3	15	
Dibenzo(a,h)anthracene		50.0	5.0	0.055	ug/L	61.6	123	1-227	2	18	B
Diethyl phthalate		50.0	5.0	0.17	ug/L	60.5	121	1-114	3	15	L1
Dimethyl phthalate		50.0	5.0	0.17	ug/L	55.0	110	1-112	4	15	
Di-n-butyl phthalate		50.0	5.0	0.94	ug/L	65.4	131	1-118	2	15	L1
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	59.3	119	4-146	3	15	
Fluoranthene		50.0	5.0	0.11	ug/L	60.8	122	26-137	3	15	
Fluorene		50.0	5.0	0.043	ug/L	56.1	112	59-121	5	18	

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)											
Hexachlorobenzene		50.0	5.0	0.28	ug/L	53.9	108	1-152	3	15	
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	36.9	74	24-116	2	50	
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	31.8	64	5-120	1	50	
Hexachloroethane		50.0	5.0	0.48	ug/L	37.9	76	40-113	3	43	
Indeno(1,2,3-cd)pyrene		50.0	5.0	0.19	ug/L	63.2	126	1-171	2	17	
Isophorone		50.0	5.0	0.16	ug/L	46.1	92	21-196	5	21	
Naphthalene		50.0	5.0	0.080	ug/L	44.3	89	21-133	4	31	
Nitrobenzene		50.0	5.0	0.11	ug/L	44.8	90	35-180	4	27	
N-Nitrosodimethylamine		50.0	10	0.96	ug/L	25.3	51	19-120	8	22	
N-Nitrosodi-n-propylamine		50.0	5.0	0.23	ug/L	49.3	99	1-230	4	23	
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	70.9	142	54-125	3	15	L1
Pentachlorophenol		50.0	10	0.41	ug/L	62.4	125	14-176	3	21	
Phenanthrene		50.0	5.0	0.071	ug/L	60.3	121	54-120	3	16	L1
Phenol		50.0	5.0	0.12	ug/L	21.6	43	5-112	2	36	
Pyrene		50.0	5.0	0.041	ug/L	62.3	125	52-115	3	15	L1
Surrogate:					ug/L		51	17-120			
2-Fluorophenol											
Surrogate: Phenol-d5					ug/L		39	10-120			
Surrogate:					ug/L		89	42-120			
Nitrobenzene-d5											
Surrogate:					ug/L		92	44-120			
2-Fluorobiphenyl											
Surrogate:					ug/L		112	49-122			
2,4,6-Tribromophenol											
Surrogate:					ug/L		108	22-125			
p-Terphenyl-d14											

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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Organochlorine Pesticides and PCBs by EPA Method 608

Blank Analyzed: 04/14/10 (Lab Number:10D0869-BLK1, Batch: 10D0869)

4,4'-DDD			0.050	0.0092	ug/L	ND				
4,4'-DDE			0.050	0.012	ug/L	ND				
4,4'-DDT			0.050	0.011	ug/L	ND				
Aldrin			0.050	0.0066	ug/L	ND				
alpha-BHC			0.050	0.0066	ug/L	ND				
beta-BHC			0.050	0.025	ug/L	ND				
Chlordane			0.50	0.029	ug/L	ND				
delta-BHC			0.050	0.010	ug/L	ND				
Dieldrin			0.050	0.0098	ug/L	ND				
Endosulfan I			0.050	0.011	ug/L	ND				
Endosulfan II			0.050	0.012	ug/L	ND				
Endosulfan sulfate			0.050	0.016	ug/L	ND				
Endrin			0.050	0.014	ug/L	ND				
Endrin aldehyde			0.050	0.016	ug/L	ND				
gamma-BHC (Lindane)			0.050	0.0060	ug/L	ND				
Heptachlor			0.050	0.0085	ug/L	ND				
Heptachlor epoxide			0.050	0.0053	ug/L	ND				
Toxaphene			0.50	0.12	ug/L	ND				

Surrogate:					ug/L		90	15-139		
Decachlorobiphenyl										
Surrogate:					ug/L		70	30-139		
Tetrachloro-m-xylene										

LCS Analyzed: 04/14/10 (Lab Number:10D0869-BS1, Batch: 10D0869)

4,4'-DDD	0.500	0.050	0.0092	ug/L	0.400	80	25-139
4,4'-DDE	0.500	0.050	0.012	ug/L	0.364	73	49-127
4,4'-DDT	0.500	0.050	0.011	ug/L	0.383	77	47-130
Aldrin	0.500	0.050	0.0066	ug/L	0.329	66	35-120
alpha-BHC	0.500	0.050	0.0066	ug/L	0.354	71	39-121
beta-BHC	0.500	0.050	0.025	ug/L	0.409	82	39-138
Chlordane		0.50	0.029	ug/L	ND		
delta-BHC	0.500	0.050	0.010	ug/L	0.385	77	40-121
Dieldrin	0.500	0.050	0.0098	ug/L	0.374	75	41-131
Endosulfan I	0.500	0.050	0.011	ug/L	0.315	63	41-126
Endosulfan II	0.500	0.050	0.012	ug/L	0.340	68	32-134
Endosulfan sulfate	0.500	0.050	0.016	ug/L	0.511	102	46-131
Endrin	0.500	0.050	0.014	ug/L	0.384	77	43-134
Endrin aldehyde	0.500	0.050	0.016	ug/L	0.401	80	39-128
gamma-BHC (Lindane)	0.500	0.050	0.0060	ug/L	0.365	73	68-120

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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Organochlorine Pesticides and PCBs by EPA Method 608

LCS Analyzed: 04/14/10 (Lab Number:10D0869-BS1, Batch: 10D0869)

Heptachlor		0.500	0.050	0.0085	ug/L	0.347	69	52-120		
Heptachlor epoxide		0.500	0.050	0.0053	ug/L	0.369	74	65-120		
Toxaphene			0.50	0.12	ug/L	ND				

Surrogate: Decachlorobiphenyl					ug/L		70	15-139		
Surrogate: Tetrachloro-m-xylene					ug/L		68	30-139		

Organochlorine Pesticides and PCBs by EPA Method 608

Blank Analyzed: 04/13/10 (Lab Number:10D0875-BLK1, Batch: 10D0875)

Aroclor 1016			0.060	0.038	ug/L	ND				QSU
Aroclor 1221			0.060	0.040	ug/L	ND				QSU
Aroclor 1232			0.060	0.049	ug/L	ND				QSU
Aroclor 1242			0.060	0.044	ug/L	ND				QSU
Aroclor 1248			0.060	0.036	ug/L	ND				QSU
Aroclor 1254			0.060	0.015	ug/L	ND				QSU
Aroclor 1260			0.060	0.010	ug/L	ND				QSU
Aroclor 1262			0.060	0.050	ug/L	ND				QSU
Aroclor 1268			0.060	0.024	ug/L	ND				QSU

Surrogate: Decachlorobiphenyl					ug/L		78	26-145		QSU
Surrogate: Tetrachloro-m-xylene					ug/L		89	25-152		QSU

LCS Analyzed: 04/13/10 (Lab Number:10D0875-BS1, Batch: 10D0875)

Aroclor 1016		1.00	0.060	0.038	ug/L	1.00	100	58-141		QSU
Aroclor 1221			0.060	0.040	ug/L	ND				QSU
Aroclor 1232			0.060	0.049	ug/L	ND				QSU
Aroclor 1242			0.060	0.044	ug/L	ND				QSU
Aroclor 1248			0.060	0.036	ug/L	ND				QSU
Aroclor 1254			0.060	0.015	ug/L	ND				QSU
Aroclor 1260		1.00	0.060	0.010	ug/L	1.12	112	56-144		QSU
Aroclor 1262			0.060	0.050	ug/L	ND				QSU
Aroclor 1268			0.060	0.024	ug/L	ND				QSU

Surrogate: Decachlorobiphenyl					ug/L		89	26-145		QSU
Surrogate: Tetrachloro-m-xylene					ug/L		97	25-152		QSU

Matrix Spike Analyzed: 04/13/10 (Lab Number:10D0875-MS1, Batch: 10D0875)

QC Source Sample: RTD1040-01

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

www.testamericainc.com

National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

Received: 04/09/10
 Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Organochlorine Pesticides and PCBs by EPA Method 608

Matrix Spike Analyzed: 04/13/10 (Lab Number:10D0875-MS1, Batch: 10D0875)

QC Source Sample: RTD1040-01

Aroclor 1016	ND	1.92	0.12	0.074	ug/L	1.82	95	58-141			QSU
Aroclor 1221	ND		0.12	0.077	ug/L	ND					QSU
Aroclor 1232	ND		0.12	0.095	ug/L	ND					QSU
Aroclor 1242	ND		0.12	0.085	ug/L	ND					QSU
Aroclor 1248	ND		0.12	0.069	ug/L	ND					QSU
Aroclor 1254	ND		0.12	0.028	ug/L	ND					QSU
Aroclor 1260	ND	1.92	0.12	0.020	ug/L	1.69	88	56-144			QSU
Aroclor 1262	ND		0.12	0.096	ug/L	ND					QSU
Aroclor 1268	ND		0.12	0.046	ug/L	ND					QSU
Surrogate: Decachlorobiphenyl					ug/L		76	26-145			QSU
Surrogate: Tetrachloro-m-xylene					ug/L		98	25-152			QSU

Matrix Spike Dup Analyzed: 04/13/10 (Lab Number:10D0875-MSD1, Batch: 10D0875)

QC Source Sample: RTD1040-01

Aroclor 1016	ND	1.92	0.12	0.074	ug/L	1.73	90	58-141	5	30	QSU
Aroclor 1221	ND		0.12	0.077	ug/L	ND					QSU
Aroclor 1232	ND		0.12	0.095	ug/L	ND					QSU
Aroclor 1242	ND		0.12	0.085	ug/L	ND					QSU
Aroclor 1248	ND		0.12	0.069	ug/L	ND					QSU
Aroclor 1254	ND		0.12	0.028	ug/L	ND					QSU
Aroclor 1260	ND	1.92	0.12	0.020	ug/L	1.37	71	56-144	21	30	QSU
Aroclor 1262	ND		0.12	0.096	ug/L	ND					QSU
Aroclor 1268	ND		0.12	0.046	ug/L	ND					QSU
Surrogate: Decachlorobiphenyl					ug/L		61	26-145			QSU
Surrogate: Tetrachloro-m-xylene					ug/L		95	25-152			QSU

National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

Received: 04/09/10

Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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Total Metals by EPA 200 Series Methods

Blank Analyzed: 04/13/10 (Lab Number:10D1007-BLK1, Batch: 10D1007)

Antimony			0.0200	0.0068	mg/L	ND				
Arsenic			0.0100	0.0056	mg/L	ND				
Beryllium			0.0020	0.0002	mg/L	ND				
Cadmium			0.0010	0.0003	mg/L	ND				
Calcium			0.5	0.1	mg/L	ND				
Chromium			0.0040	0.0009	mg/L	ND				
Copper			0.0100	0.0013	mg/L	ND				
Lead			0.0050	0.0030	mg/L	ND				
Magnesium			0.200	0.043	mg/L	ND				
Nickel			0.0100	0.0013	mg/L	ND				
Selenium			0.0150	0.0087	mg/L	ND				
Silver			0.0030	0.0012	mg/L	ND				
Sodium			1.0	0.3	mg/L	ND				
Thallium			0.0200	0.0102	mg/L	ND				
Zinc			0.0100	0.0015	mg/L	ND				

LCS Analyzed: 04/13/10 (Lab Number:10D1007-BS1, Batch: 10D1007)

Antimony	0.200	0.0200	0.0068	mg/L	0.198	99	85-115
Arsenic	0.200	0.0100	0.0056	mg/L	0.203	102	85-115
Beryllium	0.200	0.0020	0.0002	mg/L	0.200	100	85-115
Cadmium	0.200	0.0050	0.0003	mg/L	0.192	96	85-115
Calcium	10.0	0.5	0.1	mg/L	9.99	100	85-115
Chromium	0.200	0.0100	0.0009	mg/L	0.199	99	85-115
Copper	0.200	0.0250	0.0013	mg/L	0.192	96	85-115
Lead	0.200	0.0050	0.0030	mg/L	0.198	99	85-115
Magnesium	10.0	0.200	0.043	mg/L	10.0	100	85-115
Nickel	0.200	0.0400	0.0013	mg/L	0.196	98	85-115
Selenium	0.200	0.0150	0.0087	mg/L	0.202	101	85-115
Silver	0.0500	0.0250	0.0012	mg/L	0.0504	101	85-115
Sodium	10.0	1.0	0.3	mg/L	9.75	97	85-115
Thallium	0.200	0.0200	0.0102	mg/L	0.199	100	85-115
Zinc	0.200	0.0200	0.0015	mg/L	0.197	98	85-115

Total Metals by EPA 200 Series Methods

Blank Analyzed: 04/13/10 (Lab Number:10D1099-BLK1, Batch: 10D1099)

Mercury			0.0002	0.0001	mg/L	ND				
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LCS Analyzed: 04/13/10 (Lab Number:10D1099-BS1, Batch: 10D1099)

National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
 Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Total Metals by EPA 200 Series Methods											
LCS Analyzed: 04/13/10 (Lab Number:10D1099-BS1, Batch: 10D1099)											
Mercury		0.00667	0.0002	0.0001	mg/L	0.00653	98	85-115			

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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General Chemistry Parameters

Blank Analyzed: 04/12/10 (Lab Number:10D0971-BLK1, Batch: 10D0971)

Oil and Grease			5.0	1.4	mg/L	ND				
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LCS Analyzed: 04/12/10 (Lab Number:10D0971-BS1, Batch: 10D0971)

Oil and Grease		25.0	5.0	1.4	mg/L	23.6	94	78-114		
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General Chemistry Parameters

LCS Analyzed: 04/12/10 (Lab Number:10D1002-BS1, Batch: 10D1002)

Specific Conductance (25 C)		1000	NA	0.0	umhos/cm	1000	100	90-110		
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Duplicate Analyzed: 04/12/10 (Lab Number:10D1002-DUP1, Batch: 10D1002)

QC Source Sample: RTD1040-01

Specific Conductance (25 C)	160000		NA	0.0	umhos/cm	158000			1	20
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General Chemistry Parameters

LCS Analyzed: 04/10/10 (Lab Number:10D1046-BS1, Batch: 10D1046)

pH		7.00	NA	0.00	SU	7.02	100	99.3-100.8		
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General Chemistry Parameters

Blank Analyzed: 04/13/10 (Lab Number:10D1135-BLK1, Batch: 10D1135)

Total Dissolved Solids			10.0	4.0	mg/L	5.0				J
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LCS Analyzed: 04/13/10 (Lab Number:10D1135-BS1, Batch: 10D1135)

Total Dissolved Solids		500	10.0	4.0	mg/L	513	103	85-115		B
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General Chemistry Parameters

Blank Analyzed: 04/14/10 (Lab Number:10D1239-BLK1, Batch: 10D1239)

Total Recoverable Phenolics			0.0100	0.0050	mg/L	ND				
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LCS Analyzed: 04/14/10 (Lab Number:10D1239-BS1, Batch: 10D1239)

Total Recoverable Phenolics		0.653	0.0500	0.0250	mg/L	0.514	79	75-125		D08
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General Chemistry Parameters

Blank Analyzed: 04/17/10 (Lab Number:10D1532-BLK1, Batch: 10D1532)

Cyanide			0.0100	NR	mg/L	ND				
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LCS Analyzed: 04/17/10 (Lab Number:10D1532-BS1, Batch: 10D1532)

National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
 Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
 Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
<u>General Chemistry Parameters</u>										
LCS Analyzed: 04/17/10 (Lab Number:10D1532-BS1, Batch: 10D1532)										
Cyanide		0.400	0.0100	NR	mg/L	0.431	108	90-110		
<u>General Chemistry Parameters</u>										
Blank Analyzed: 04/22/10 (Lab Number:10D1897-BLK1, Batch: 10D1897)										
Total Organic Halides (Tox)			20.0	6.5	ug/L	8.4				J
LCS Analyzed: 04/22/10 (Lab Number:10D1897-BS1, Batch: 10D1897)										
Total Organic Halides (Tox)		100	20.0	6.5	ug/L	115	115	75-125		B
<u>General Chemistry Parameters</u>										
Blank Analyzed: 04/20/10 (Lab Number:10D1994-BLK1, Batch: 10D1994)										
Chloride			1.00	0.46	mg/L	ND				
LCS Analyzed: 04/20/10 (Lab Number:10D1994-BS1, Batch: 10D1994)										
Chloride		25.0	1.00	0.46	mg/L	25.8	103	90-110		
<u>General Chemistry Parameters</u>										
Blank Analyzed: 04/23/10 (Lab Number:10D2194-BLK1, Batch: 10D2194)										
Total Organic Carbon			1.0	0.4	mg/L	ND				
LCS Analyzed: 04/23/10 (Lab Number:10D2194-BS1, Batch: 10D2194)										
Total Organic Carbon		60.0	1.0	0.4	mg/L	60.6	101	90-110		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes No

Chain of Custody Custody Record

TAL-412K (10/07)

Client: **NATIONAL FUEL GAS** Chain of Custody Number: **139805**

Address: **C/O FRONTIER TECHNICAL ASSOCIATES** Date: **4/9/10**

City: **9120 MAIN ST** State: **IN** Zip Code: **46031**

Project Name and Location (State): **CLARENCE IN** Project Manager: **DAVID HARTY**

Telephone Number (Area Code) Fax Number: **(716) 634-2293** Lead Contact: _____

Site Contact: _____

Contract Purchase Order/Quote No: _____

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Analysis (Aliquot list if more space is needed)							Special Instructions/ Conditions of Receipt	
			PP METALS	PP PCB'S	PP PESTICIDES	PP SEMI-VOL'S	TOTAL PHENOLICS	COND.	OIL + GREASE		
BRINE	4/9/10	11:15	X	X	X	X	X	X	X	X	

Containers & Preservatives	Adaptix
None	None

Possible Hazard Identification

Non-Hazard Flammable Skin Irritant Poison B Unknown Lethal To Client Disposal By Lab Analyze For _____ Months longer (than 1 month)

Turn Around Time Required

24 Hours 48 Hours 7 Days 14 Days 21 Days Other STANDARD

QC Requirements (Specify)

1. Requisitioned By: _____ Date: 4/9/10 Time: 15:55

2. Requisitioned By: _____ Date: _____ Time: _____

3. Requisitioned By: _____ Date: _____ Time: _____

Comments: _____

* METALS = Sb, As, Be, Cd, Ca, Cr, Cu, Pb, Mg, Hg, Ni, Se, Ag, Na, Ti, Zn

DISTRIBUTION: WASTE - Returned to Client with Report: CHARTY; Stay with the Sample. Other - Field Copy

Signature: *[Handwritten Signature]*

Signature: *[Handwritten Signature]*

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

MAR 29 2012

Mr. Bradley Schiralli
Highway Superintendent
Town of Bolivar
252 North Main Street
Bolivar, NY 14715

Dear Mr. Schiralli:

Re: Brine Bud # **B045-12** – Dust Control and Road Stabilization

We have reviewed the information submitted in your December 29, 2011 petition for the proposed beneficial use of brine from the National Fuel Gas Beech Hill facility located in Wellsville, New York and the National Fuel Gas facility located in Andover, New York as part of your dust control and road stabilization system. We have also reviewed the analytical report provided by National Fuel Gas for brine from the above sources dated March 6, 2012. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- All vehicles transporting and spreading brine must have a valid Part 364 permit.
- Dust control activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied within 50 feet of any stream, creek, lake or other body of water or in a manner that could cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be spread after daylight hours, during rain or when rain is imminent or on sections of road having a grade exceeding 10 percent.
- Brine is approved for road spreading use on the unpaved sections of the following roads; California Hollow, Anderson Hollow, Wappseny Road, Stoney Lonesome and Willow Brook Road. Brine may be applied a maximum of twenty times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.

Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

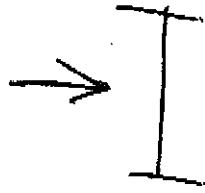
518-402-9024

ATT

Stephen London

NY 5 DEC

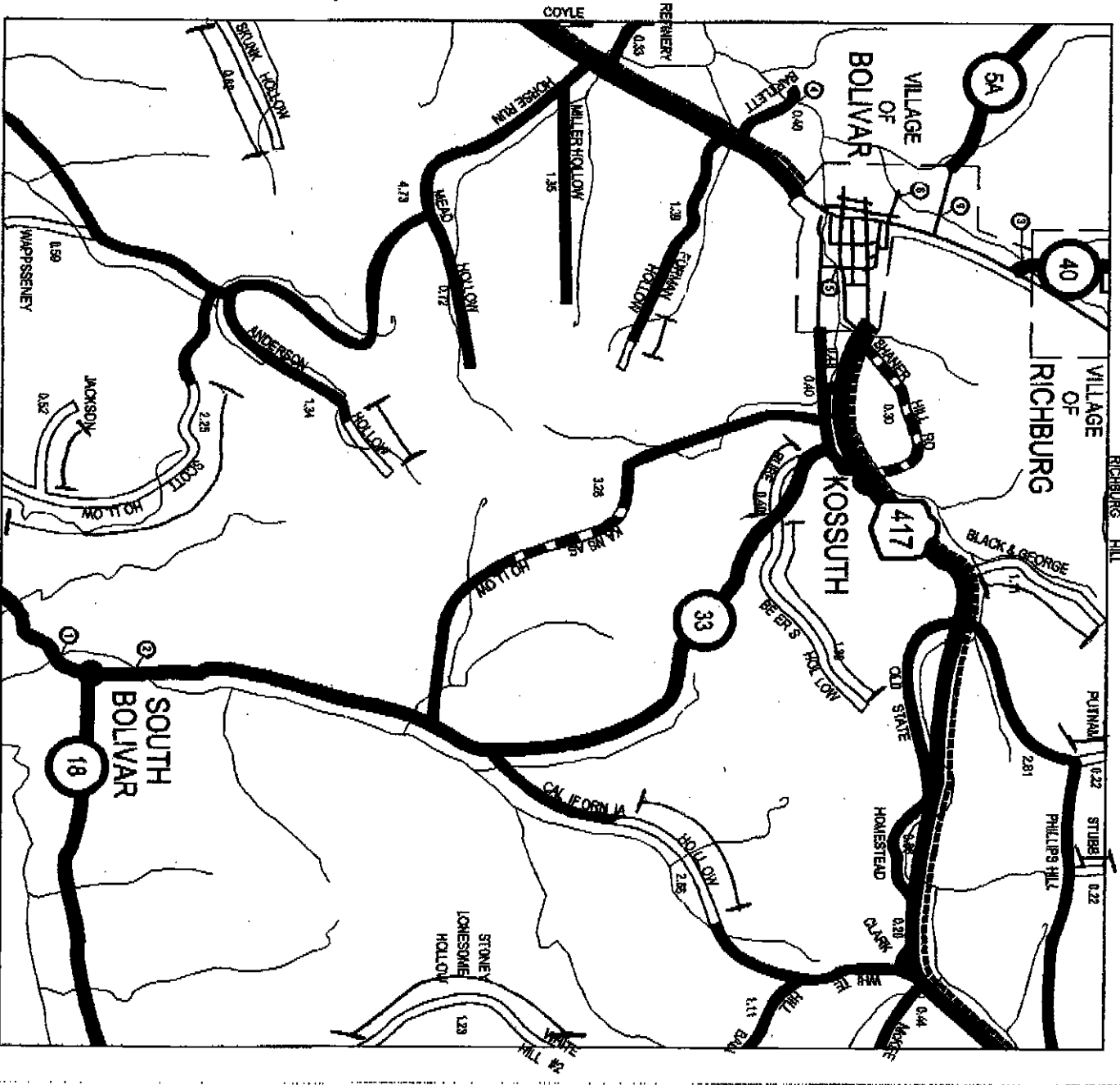
10



Dust Control
APRAYS

From BRAD
SEHIBALLI

Town of Bolivar
252N Main St
Bolivar NY 14715
585-928-1181



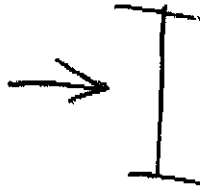
518-402-9024

ATT

Stephen London

NY5 DEC

10

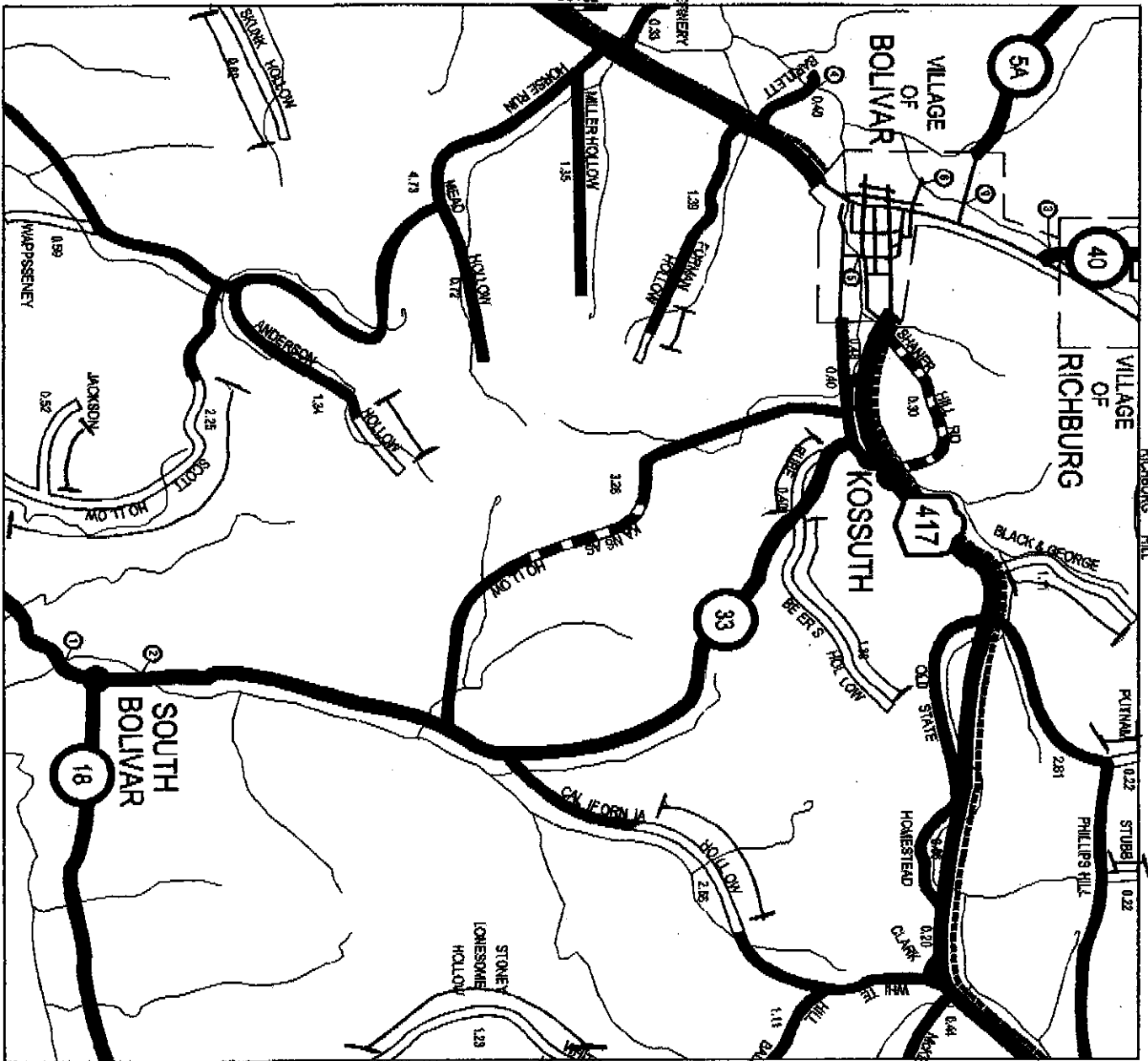


Dust Control
AREAS



From Broad
SERRALLI

Town of Bolivar
25th Main St
Bolivar NY 14715
585-928-1181



Town of Bolivar
252 North Main Street
Bolivar, New York 14715

December 29 2011

NYS Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Technical Support, 11th Floor
625 Broadway
Albany, New York 12233-7020

RE: BUD Petition

Dear Mr. Aversa,

I, Bradley Schiralli, Town of Bolivar Highway Superintendent, do hereby authorize the use of brine on the roads indicated on the map previously sent.

Sincerely,

Bradley Schiralli, Highway Superintendent

Town of Bolivar

252 North Main Street
Bolivar, New York 14715

585/928-1181

Fax: 585/928-2045

Fax Cover Sheet

To: Jack Aversa

From: Bradley Schiralli, Highway Superintendent

Date: January 20, 2012

Pages, including cover: 4

Town of Bolivar
252 North Main Street
Bolivar, New York 14715

December 29, 2011

#6

Road Spreading Plan

An 8 foot spreader bar, attached to a tank truck which is dedicated to the distribution of brine water, with shut-off controls in the cab of the truck will be used.

Application Restrictions: The brine water is not applied after daylight hours, within 50 feet of a stream, creek, lake or other body of water, wet roads, when it is raining, or on sections of a road having a grade exceeding 10%. Brine water is not used for road de-icing in the Town of Bolivar.

#7 Storage of Brine

The Town of Bolivar does not store brine.

Brine will be spread on the following dirt roads:

- California Hollow
- Anderson Hollow
- Wappseny Road
- Stoney Lonesome
- Willow Brook Road

Town of Bolivar
252 North Main Street
Bolivar, New York 14715

December 29, 2011

The name, address and telephone number of the person seeking the approval is:

Bradley Schiralli, Highway Superintendent
252 North Main Street
Bolivar, New York 14715
585/ 928-1181

The physical address of the brine storage locations from which brine is hauled:

#1 – National Fuel
Beech Hill Station
1161 Peet Road
Wellsville, New York 14895

#2 – National Fuel
2210 County Route 22
Andover, New York 14806

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
825 Broadway, 11th Floor, Albany NY 12233-7020

WASTE TRANSPORTER PERMIT RENEWAL NOTICE & APPLICATION

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law, 6 NYCRR Part 364 & 8 NYCRR Part 381

PART 1 - RENEWAL NOTICE

TOWN OF BOLIVAR
BRAD SCHIRALLI
252 NORTH MAIN STREET
BOLIVAR, NY 14715

PERMIT NO.

9A-502

Date of Notice: 12/08/2011

Expiration Date: 08/31/2011

Application Due Date: 08/01/2011

Your current 6 NYCRR Part 364 Waste Transporter Permit (and Part 381 Low-Level Radioactive Waste (LLRW) Transporter Permit - if applicable) expires on 08/31/2011. If you wish to renew your permit(s), please complete this renewal form and mail it to the above address by **08/01/2011**. If modifications need to be made to your permit(s), please make the appropriate changes on this Notice and all attached forms. All forms must be submitted by mail.

If you do not submit your renewal application by 08/01/2011, your permit will expire on 08/31/2011. If your permit expires, you will have to apply for a new permit, in which case you will be assigned a new permit number.

NOTE: In order to process your renewal, you must at this time:

- > Pay all outstanding Regulatory Fees in full by calling 1-800-225-2565.
- > Provide proof of liability insurance, as required by New York State Environmental Conservation Law.
- > Submit an Annual Report for the previous calendar year.

If you have any questions concerning this renewal notice and/or application, please call the Waste Transporter Program at (518) 402-8792 (for Low-Level Radioactive Waste Transporter Program call (518) 402-8579).

PART 2 - RENEWAL APPLICATION

I authorize the NYS Department of Environmental Conservation, Division of Environmental Remediation, to take the following action on my Part 364 Waste Transporter Permit (and Part 381 Low-Level Radioactive Waste (LLRW) Transporter Permit, if applicable):

- Renew (with no changes)
- Renew with modifications (PLEASE MAKE APPROPRIATE CHANGES ON THIS FORM.)
- Do not renew

If any of the following information listed below is incorrect, please draw a line through the incorrect information and print the corrections below it. Please provide any missing information as well:

NAME: TOWN OF BOLIVAR	EPA ID#:
STREET: 252 NORTH MAIN STREET	CONTACT: BRAD SCHIRALLI
STREET:	PHONE: (565)928-1181
CITY: BOLIVAR	COUNTY: Allegany
STATE: NY	ZIP: 14715

CERTIFICATION:

I hereby affirm that I will deliver waste only to facilities authorized by the host state to accept such waste. I understand that I will be responsible for payment of Regulatory Fees associated with this permit even if the vehicle(s) are not used.

I also affirm that all transfer, storage, treatment and disposal facilities to which I transported waste, indicated by my annual report amounts entered in the following pages, are authorized to accept this type of waste, and can so demonstrate if requested to do so. The reported waste amount information provided in this form is true to the best of my knowledge and belief.

False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the NYS Penal Law and may result in revocation of my transporter permit.

Print Name BRADLEY C SCHIRALLI	Title Hwy Superintendent
Authorized Signature <i>Bradley Schiralli</i>	Date Dec 28 2011

Town of Bolivar
252 North Main Street
Bolivar, New York 14715
585/928-1181
Fax: 585/928-2045

Fax Cover Sheet

To: Jack Aversa
From: Bradley Schiralli, Highway Superintendent
Date: January 20, 2012
Pages, including cover: 4

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 DIVISION OF ENVIRONMENTAL REMEDIATION
 625 Broadway, 11th Floor, Albany NY 12233-7020

WASTE TRANSPORTER PERMIT RENEWAL NOTICE & APPLICATION

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law, 6 NYCRR Part 584 & 6 NYCRR Part 581

Transporter Name: TOWN OF BOLIVAR	Permit No. 9A-502 Expires: 08/31/2011
---	--

Annual Report Destination Facility Information
 For reporting period January 1, 2010 to December 31, 2010

Destination Facility

If any information is incorrect, please draw a line through the incorrect information and print or type corrections below it.

FACILITY NAME:	SALT BRINE BUD - NYSDEC	CONTACT NAME:	NATIONAL FUEL GAS
	APPROVED SITES ONLY		2210 County Rt 22
STREET ADDRESS:	APPROVED		ANDOVER NY 14895
CITY: VARIOUS	STATE: NY	ZIP: 000	PHONE:

Waste Information

For your renewal		Waste Description	Annual Report Amounts		Units**
Add	Delete*		Within NYS	Outside NYS	
<input type="checkbox"/>	<input type="checkbox"/>	Non-Hazardous Industrial/Commercial	15,000 GAL		tons
<input type="checkbox"/>	<input type="checkbox"/>	Waste Tires			tons
<input type="checkbox"/>	<input type="checkbox"/>	Asbestos			tons
<input type="checkbox"/>	<input type="checkbox"/>	Petroleum Contaminated Soil			tons
<input type="checkbox"/>	<input type="checkbox"/>	Grease Trap Waste			gallons
<input type="checkbox"/>	<input type="checkbox"/>	Septage only (residential)			gallons
<input type="checkbox"/>	<input type="checkbox"/>	Residential Raw Sewage including Portable Toilet Waste			gallons
<input type="checkbox"/>	<input type="checkbox"/>	Non-Residential Raw Sewage or Sewage-Contaminated Wastes			gallons
<input type="checkbox"/>	<input type="checkbox"/>	Sludge from Sewage or Water Supply Treatment Plant			gallons
<input type="checkbox"/>	<input type="checkbox"/>	Hazardous Industrial/Commercial			tons
<input type="checkbox"/>	<input type="checkbox"/>	Waste Oil			gallons
<input type="checkbox"/>	<input type="checkbox"/>	Medical			tons
<input type="checkbox"/>	<input type="checkbox"/>	Low-Level Radioactive Waste (LLRW)			tons
<input type="checkbox"/>	<input type="checkbox"/>	Mixed Waste (LLRW mixed with Hazardous Waste)			tons

* If you are removing a waste type from this destination facility, you must still fill in an Annual Report Amount for the reporting period indicated at the top of the page.

** Units must be indicated in GALLONS or TONS ONLY.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
625 Broadway, 11th Floor, Albany NY 12233-7020

WASTE TRANSPORTER PERMIT RENEWAL NOTICE & APPLICATION

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law, 8 NYCRR Part 394 & 6 NYCRR Part 391

Transporter Name: TOWN OF BOLIVAR	Permit No. 9A-502 Expires: 08/31/2011
---	--

Annual Report Waste Collection Information
For reporting period January 1, 2010 to December 31, 2010

**** Units MUST be indicated in gallons or tons ONLY ****
Waste picked up outside of NYS and transported to a facility outside of NYS does not need to be reported.

Type of Waste	Amount of waste picked up	
	Within NYS	Outside NYS
Non-Hazardous Industrial/Commercial	15,000	gal tons
Waste Tires		tons
Asbestos		tons
Petroleum Contaminated Soil		tons
Grease Trap Waste		gallons
Septage only (residential)		gallons
Residential Raw Sewage including Portable Toilet Waste		gallons
Non-Residential Raw Sewage or Sewage-Contaminated Wastes		gallons
Sludge from Sewage or Water Supply Treatment Plant		gallons
Hazardous Industrial/Commercial		tons
Waste Oil		gallons
Medical		tons
Low-Level Radioactive Waste (LLRW)		tons
Mixed Waste (LLRW mixed with Hazardous Waste)		tons

New York State Department of Environmental Conservation

Division of Environmental Remediation

Bureau of Technical Support, 11th Floor
625 Broadway, Albany, New York 12233-7020
Phone: (518) 402-9543 • Fax: (518) 402-9547
Website: www.dec.ny.gov



August 1, 2011

518-928-1181
Mr. Brad Schiralli
Town of Bolivar
252 North Main Street
Bolivar, NY 14715

Dear Mr. Schiralli:

Re: Waste Transporter Permit Renewal – Brine Application

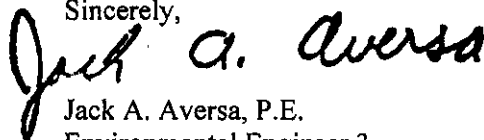
We are unable to process your application for renewal of your New York State Part 364 Waste Transporter Permit (Permit No. 9A-502) as we do not have an approved Beneficial Use Determination (BUD) on file. Per the enclosed fact sheet (2009), a BUD petition must be submitted and approved by the Department prior to application of the brine on roads. Therefore, please prepare and submit a BUD petition to my attention. My fax number is 518-402-9577.

As noted in the fact sheet, no sampling is required for brine from a liquefied petroleum gas (LGP) operation with a valid New York State SPDES permit. If this is the case for your situation, please contact the brine supplier to obtain their SPDES permit number and include it with your BUD petition. Upon receipt, I will forward to Mr. Steve Condon, Organic Recycling and Beneficial Use Section, Division of Materials Management, for review. Once the BUD is approved, we will process your application for renewal of the waste transporter permit. The appropriate Town road(s) will be listed as the destination facility.

Please note that the phone number listed in the fact sheet is incorrect. For questions regarding the BUD petition, please contact Mr. Condon, at 518-402-8706.

If you have any other questions, please contact me at 518-402-8792.

Sincerely,



Jack A. Aversa, P.E.
Environmental Engineer 3
Registration and Permits Section
Bureau of Technical Support
Division of Environmental Remediation

Enclosure

cc: S. Condon



January 2009

NOTICE TO GAS AND OIL WELL & LPG STORAGE FLUID HAULERS

All gas or oil well drilling and production fluids including but not limited to brine and fracturing fluids, and brine from liquefied petroleum gas (LPG) well storage operations, transported for disposal, road spreading, reuse in another gas or oil well, or recycling must be specifically identified in Part C and D of the New York State Waste Transporter Permit Application Form. Transporters must identify the type of fluid proposed to be transported in Section C in the Non-Hazardous Industrial/Commercial box and the Disposal or Destination Facility (or Use) in Part D.

Fracture fluids obtained during flowback operations may not be spread on roads and must be disposed at facilities authorized by the Department. Such disposal facilities must be identified in Part D of the permit application. If fluids are to be transported for use or reuse at another gas or oil well, that location must be identified in Part D of the permit application.

With respect to fluids transported under a Waste Transporter Permit, only production brines or brine from LPG storage operations may be used for road spreading. Drilling, fracing, and plugging fluids are not acceptable for road spreading.

Any person, including any government entity, applying for a Part 364 permit or permit modification to use production brine from oil or gas wells or brine from LPG well storage operations for road spreading purposes (i.e. road de-icing, dust suppression, or road stabilization) must submit a petition for a beneficial use determination (BUD). If a contract hauler is applying for a Part 364 permit or permit modification to deliver brine to a government agency for road spreading purposes, that government agency must submit the BUD petition. The BUD must be granted and the Part 364 permit/modification must be issued before brine can be removed from the well or LPG storage site for road spreading purposes or storage at an offsite facility.

The BUD petition must include:

1. An original letter signed and dated by the government agency representative or other property owner authorizing the use of brine on the locations identified in below item 3.

2. The name, address and telephone number of the person, company or government official seeking the approval.
3. An identification (or map) of the specific roads or other areas that are to receive the brine and any brine storage locations, excluding the well site storage locations.
4. The physical address of the brine storage locations from which the brine is hauled.
5. For each well field or LPG storage facility, a chemical analysis of a representative sample of the brine performed by a NYSDOH approved laboratory for the following parameters: calcium, sodium, chloride, magnesium, total dissolved solids, pH, iron, barium, lead, sulfate, oil & grease, benzene, ethylbenzene, toluene, and xylene. Depending upon the analytical results, the Department may require additional analyses. (This analysis is not required for brine from a LPG well operation with a valid New York State SPDES permit.)
6. A road spreading plan that includes a description of the procedures to prevent the brine from flowing or running off into streams, creeks, lakes and other bodies of water. The plan should include:
 - a description of how the brine will be applied, including the equipment to be used and the method for controlling the rate of application. In general this should indicate that the brine is applied by use of a spreader bar or similar spray device with shut-off controls in the cab of the truck; and with vehicular equipment that is dedicated to this use or cleaned of previously transported waste materials prior to this use;
 - the proposed rate and frequency of application;
 - a description of application restrictions. For dust control and road stabilization use this description should indicate that the brine is not applied: after daylight hours; within 50 feet of a stream, creek, lake or other body of water; on sections of road having a grade exceeding 10 percent; or on wet roads, during rain, or when rain is imminent. For road deicing use, this description should indicate that the brine is applied in accordance NYSDOT Guidelines for Anti-Icing with Liquids and include any other restrictions.
7. Where applicable, a brine storage plan that includes:
 - a description of the type, material, size, and number of storage tanks and the maximum anticipated storage;
 - procedures for run off and run-on control;
 - provisions for secondary containment; and
 - a contingency plan.

If you have any questions concerning your permit, please feel free to call this office at (518) 402-8707. You may also visit our public website at the address above for information and forms to download or print.

Waste Transporter Permit Program

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

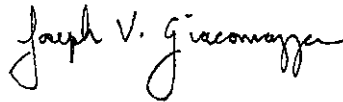
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-16320-1
Client Project/Site: Brine Priority Pollutant Analysis

For:
National Fuel Gas Supply Company
5955 New Taylor Road
Orchard Park, New York 14127

Attn: James Clark



Authorized for release by:
3/6/2012 10:14:33 AM
Joe Giacomazza
Project Administrator
joe.giacomazza@testamericainc.com
Designee for
John Schove
Project Manager I
john.schove@testamericainc.com

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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.



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	6
Client Sample Results	7
Surrogate Summary	12
QC Sample Results	14
QC Association Summary	27
Lab Chronicle	31
Certification Summary	32
Method Summary	33
Sample Summary	34
Chain of Custody	35
Receipt Checklists	36

Definitions/Glossary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☆	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Job ID: 480-16320-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-16320-1

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

No analytical or quality issues were noted.

GC/MS Semi VOA

Method 625: The method blank for batch 52174 contained multiple analytes above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

GC Semi VOA

Method 608: The following sample: (LCS 480-52444/2-A), has Surrogate outside recovery limits, though the secondary surrogate is within limits.

Method 608: The following sample was diluted due to the nature of the sample matrix: BRINE (480-16320-1). Therefore, surrogate recoveries are not representative, and elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals

Method 200.7 Rev 4.4: The Method Blank for batch 480-52385 contained total sodium and calcium above the method detection limits. These target analyte concentrations were less than the reporting limits (RLs); therefore, re-extraction and/or re-analysis of sample BRINE (480-16320-1) was not performed.

Method 200.7 Rev 4.4: The following sample was diluted for total silver, lead and selenium due to the nature of the sample matrix: BRINE (480-16320-1). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following sample was diluted due to the abundance of target analyte total calcium & magnesium: BRINE (480-16320-1). Elevated reporting limits (RLs) are provided.

Method 200.7, 3005A: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: BRINE (480-16320-1). The reporting limits (RLs) have been adjusted proportionately.

Method 245.1, 7470A: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples: BRINE (480-16320-1). This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample was prepared and analyzed at a 5x dilution, which maintained the purple color during digestion.

No other analytical or quality issues were noted.

General Chemistry

Method SM 2540C: The method blank for batch 52430 contained total dissolved solids above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method SM 2540C: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: BRINE (480-16320-1). The reporting limits (RLs) have been adjusted proportionately.

Method 335.4, 9012A: The laboratory control sample (LCS) for batch 52395 exceeded control limits for the following analytes: Cyanide. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. BRINE (480-16320-1)

Case Narrative

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Job ID: 480-16320-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method 420.4: The method blank for batch 52948 contained phenol above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. BRINE (480-16320-1)

Method 9020: Breakthrough exceeded 10% for the following sample: BRINE (480-16320-1). Re-analysis was performed with concurring results. The data have been reported.

Method 9020: This method uses a dilution applied during the preparation portion of the procedure. The dilution factor (DF) presented on the final report represents only the analytical dilution, not the dilution factor applied in the preparation batch. BRINE (480-16320-1)

Method 9060: The method blank for batch 53807 contained TOC above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

Organic Prep

Method 625: Precipitate formed when sodium hydroxide was added.

No other analytical or quality issues were noted.

Detection Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	53		5.0	0.60	ug/L	1			624	Total/NA
Chloromethane	2.8	J	5.0	0.64	ug/L	1			624	Total/NA
Toluene	11		5.0	0.45	ug/L	1			624	Total/NA
Benzo[a]anthracene	0.30	J B	5.0	0.043	ug/L	1			625	Total/NA
Bis(2-ethylhexyl) phthalate	0.93	J B	9.9	0.85	ug/L	1			625	Total/NA
Chrysene	0.28	J B	5.0	0.035	ug/L	1			625	Total/NA
Naphthalene	0.32	J	5.0	0.079	ug/L	1			625	Total/NA
Pyrene	0.13	J	5.0	0.040	ug/L	1			625	Total/NA
2,4-Dichlorophenol	0.39	J	5.0	0.30	ug/L	1			625	Total/NA
2,4-Dimethylphenol	0.57	J	5.0	0.13	ug/L	1			625	Total/NA
Phenol	25		5.0	0.12	ug/L	1			625	Total/NA
Calcium	48800		50.0	10.0	mg/L	50			200.7 Rev 4.4	Total/NA
Chromium	0.0025	J	0.0080	0.0017	mg/L	1			200.7 Rev 4.4	Total/NA
Magnesium	5220		4.0	0.87	mg/L	10			200.7 Rev 4.4	Total/NA
Nickel	0.013	J	0.020	0.0025	mg/L	1			200.7 Rev 4.4	Total/NA
Sodium	6450	B	2.0	0.65	mg/L	1			200.7 Rev 4.4	Total/NA
Zinc	0.11		0.020	0.0034	mg/L	1			200.7 Rev 4.4	Total/NA
Oil & Grease	330		4.8	1.3	mg/L	1			1664A	Total/NA
Phenolics, Total Recoverable	0.069	B	0.050	0.025	mg/L	5			420.4	Total/NA
Halogens, Total Organic	39000		4000	1300	ug/L	1			9020	Total/NA
Total Organic Carbon	1.9		1.0	0.43	mg/L	1			9060	Total/NA
Total Dissolved Solids	217000		2000	800	mg/L	1			SM 2540C	Total/NA
Chloride	209000		6050	2780	mg/L	6050			SM 4500 Cl- E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	19300		1.00	1.00	umhos/cm	1			120.1	Total/NA
pH	4.81		0.100	0.100	SU	1			9040B	Total/NA

5

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

No Detections

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	53		5.0	0.60	ug/L			02/20/12 15:09	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 15:09	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 15:09	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 15:09	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 15:09	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 15:09	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 15:09	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 15:09	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 15:09	1
Chloromethane	2.8	J	5.0	0.64	ug/L			02/20/12 15:09	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 15:09	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 15:09	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 15:09	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 15:09	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 15:09	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 15:09	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 15:09	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 15:09	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 15:09	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 15:09	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 15:09	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 15:09	1
Toluene	.11		5.0	0.45	ug/L			02/20/12 15:09	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 15:09	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 15:09	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 15:09	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 15:09	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 15:09	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 15:09	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 15:09	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		72 - 130		02/20/12 15:09	1
4-Bromofluorobenzene (Surr)	98		69 - 121		02/20/12 15:09	1
Toluene-d8 (Surr)	99		70 - 123		02/20/12 15:09	1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.059	ug/L		02/20/12 10:21	02/21/12 12:15	1
Acenaphthylene	ND		5.0	0.034	ug/L		02/20/12 10:21	02/21/12 12:15	1
Anthracene	ND		5.0	0.052	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzidine	ND		79	2.5	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[a]anthracene	0.30	J B	5.0	0.043	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[a]pyrene	ND		5.0	0.057	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[b]fluoranthene	ND		5.0	0.061	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[g,h,i]perylene	ND		5.0	0.099	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[k]fluoranthene	ND		5.0	0.041	ug/L		02/20/12 10:21	02/21/12 12:15	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		02/20/12 10:21	02/21/12 12:15	1
Bis(2-chloroethoxy)methane	ND		5.0	0.084	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,2'-oxybis[1-chloropropane]	ND		5.0	0.085	ug/L		02/20/12 10:21	02/21/12 12:15	1



Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.93	J B	9.9	0.85	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Chloronaphthalene	ND		5.0	0.067	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L		02/20/12 10:21	02/21/12 12:15	1
Chrysene	0.28	J B	5.0	0.035	ug/L		02/20/12 10:21	02/21/12 12:15	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		02/20/12 10:21	02/21/12 12:15	1
Di-n-butyl phthalate	ND		5.0	0.93	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2-Dichlorobenzene	ND		9.9	0.14	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,3-Dichlorobenzene	ND		9.9	0.068	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,4-Dichlorobenzene	ND		9.9	0.089	ug/L		02/20/12 10:21	02/21/12 12:15	1
3,3'-Dichlorobenzidine	ND		5.0	0.81	ug/L		02/20/12 10:21	02/21/12 12:15	1
Diethyl phthalate	ND		5.0	0.17	ug/L		02/20/12 10:21	02/21/12 12:15	1
Dimethyl phthalate	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,6-Dinitrotoluene	ND		5.0	0.71	ug/L		02/20/12 10:21	02/21/12 12:15	1
Di-n-octyl phthalate	ND		5.0	4.4	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2-Diphenylhydrazine	ND		9.9	0.062	ug/L		02/20/12 10:21	02/21/12 12:15	1
Fluoranthene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
Fluorene	ND		5.0	0.042	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorobenzene	ND		5.0	0.27	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorobutadiene	ND		5.0	0.61	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachloroethane	ND		5.0	0.48	ug/L		02/20/12 10:21	02/21/12 12:15	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.18	ug/L		02/20/12 10:21	02/21/12 12:15	1
Isophorone	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 12:15	1
Naphthalene	0.32	J	5.0	0.079	ug/L		02/20/12 10:21	02/21/12 12:15	1
Nitrobenzene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodimethylamine	ND		9.9	0.95	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodiphenylamine	ND		5.0	0.39	ug/L		02/20/12 10:21	02/21/12 12:15	1
Phenanthrene	ND		5.0	0.070	ug/L		02/20/12 10:21	02/21/12 12:15	1
Pyrene	0.13	J	5.0	0.040	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2,4-Trichlorobenzene	ND		9.9	0.49	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Chloro-3-methylphenol	ND		5.0	0.55	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Chlorophenol	ND		5.0	0.15	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dichlorophenol	0.39	J	5.0	0.30	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dimethylphenol	0.57	J	5.0	0.13	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dinitrophenol	ND		9.9	0.83	ug/L		02/20/12 10:21	02/21/12 12:15	1
4,6-Dinitro-2-methylphenol	ND		9.9	0.75	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Nitrophenol	ND		5.0	0.14	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Nitrophenol	ND		9.9	1.3	ug/L		02/20/12 10:21	02/21/12 12:15	1
Pentachlorophenol	ND		9.9	0.41	ug/L		02/20/12 10:21	02/21/12 12:15	1
Phenol	25		5.0	0.12	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 12:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	112		52 - 151				02/20/12 10:21	02/21/12 12:15	1
2-Fluorobiphenyl	84		44 - 120				02/20/12 10:21	02/21/12 12:15	1
2-Fluorophenol	70		17 - 120				02/20/12 10:21	02/21/12 12:15	1
Nitrobenzene-d5	90		42 - 120				02/20/12 10:21	02/21/12 12:15	1

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5	86		10 - 120	02/20/12 10:21	02/21/12 12:15	1
p-Terphenyl-d14	26		22 - 125	02/20/12 10:21	02/21/12 12:15	1

6

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.25	0.032	ug/L		02/22/12 07:58	02/24/12 18:11	5
alpha-BHC	ND		0.25	0.032	ug/L		02/22/12 07:58	02/24/12 18:11	5
beta-BHC	ND		0.25	0.12	ug/L		02/22/12 07:58	02/24/12 18:11	5
delta-BHC	ND		0.25	0.049	ug/L		02/22/12 07:58	02/24/12 18:11	5
gamma-BHC (Lindane)	ND		0.25	0.029	ug/L		02/22/12 07:58	02/24/12 18:11	5
Chlordane (technical)	ND		2.5	0.14	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDD	ND		0.25	0.045	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDE	ND		0.25	0.057	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDT	ND		0.25	0.054	ug/L		02/22/12 07:58	02/24/12 18:11	5
Dieldrin	ND		0.25	0.048	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan I	ND		0.25	0.054	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan II	ND		0.25	0.059	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan sulfate	ND		0.25	0.077	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endrin	ND		0.25	0.068	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endrin aldehyde	ND		0.25	0.080	ug/L		02/22/12 07:58	02/24/12 18:11	5
Heptachlor	ND		0.25	0.042	ug/L		02/22/12 07:58	02/24/12 18:11	5
Heptachlor epoxide	ND		0.25	0.026	ug/L		02/22/12 07:58	02/24/12 18:11	5
Toxaphene	ND		2.5	0.59	ug/L		02/22/12 07:58	02/24/12 18:11	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	15 - 125	02/22/12 07:58	02/24/12 18:11	5
Tetrachloro-m-xylene	0	X	36 - 121	02/22/12 07:58	02/24/12 18:11	5

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1221	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1232	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1242	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1248	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1254	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1260	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1262	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1268	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		10 - 158	02/21/12 07:54	02/21/12 18:28	1
Tetrachloro-m-xylene	90		18 - 146	02/21/12 07:54	02/21/12 18:28	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.040	0.014	mg/L		02/22/12 08:15	02/22/12 18:17	1
Arsenic	ND		0.020	0.011	mg/L		02/22/12 08:15	02/22/12 18:17	1
Beryllium	ND		0.0040	0.00060	mg/L		02/22/12 08:15	02/22/12 18:17	1
Cadmium	ND		0.0020	0.00066	mg/L		02/22/12 08:15	02/22/12 18:17	1
Calcium	48800		50.0	10.0	mg/L		02/22/12 08:15	02/24/12 23:18	50
Chromium	0.0025	J	0.0080	0.0017	mg/L		02/22/12 08:15	02/22/12 18:17	1

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.020	0.0030	mg/L		02/22/12 08:15	02/22/12 18:17	1
Lead	ND		0.50	0.30	mg/L		02/22/12 08:15	02/29/12 22:49	50
Magnesium	5220		4.0	0.87	mg/L		02/22/12 08:15	02/24/12 23:11	10
Nickel	0.013	J	0.020	0.0025	mg/L		02/22/12 08:15	02/22/12 18:17	1
Selenium	ND		0.30	0.17	mg/L		02/22/12 08:15	02/24/12 23:11	10
Silver	ND		0.060	0.034	mg/L		02/22/12 08:15	02/24/12 23:11	10
Sodium	6450	B	2.0	0.65	mg/L		02/22/12 08:15	02/22/12 18:17	1
Thallium	ND		0.040	0.020	mg/L		02/22/12 08:15	02/22/12 18:17	1
Zinc	0.11		0.020	0.0034	mg/L		02/22/12 08:15	02/22/12 18:17	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0010	0.00060	mg/L		02/20/12 09:05	02/20/12 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	330		4.8	1.3	mg/L		02/21/12 15:10	02/21/12 15:18	1
Cyanide, Total	ND		0.010	0.0050	mg/L		02/20/12 17:00	02/21/12 15:00	1
Phenolics, Total Recoverable	0.069	B	0.050	0.025	mg/L		02/20/12 19:46	02/25/12 10:40	5
Halogens, Total Organic	39000		4000	1300	ug/L			02/27/12 07:29	1
Total Organic Carbon	1.9		1.0	0.43	mg/L			03/03/12 18:28	1
Total Dissolved Solids	217000		2000	800	mg/L			02/22/12 19:10	1
Chloride	209000		6050	2780	mg/L			02/20/12 23:36	6050
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	19300		1.00	1.00	umhos/cm			02/21/12 09:56	1
pH	4.81		0.100	0.100	SU			02/17/12 19:28	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	0.60	ug/L			02/20/12 15:32	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 15:32	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 15:32	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 15:32	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 15:32	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 15:32	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 15:32	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 15:32	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 15:32	1
Chloromethane	ND		5.0	0.64	ug/L			02/20/12 15:32	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 15:32	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 15:32	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 15:32	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 15:32	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 15:32	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 15:32	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 15:32	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 15:32	1

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 15:32	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 15:32	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 15:32	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 15:32	1
Toluene	ND		5.0	0.45	ug/L			02/20/12 15:32	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 15:32	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 15:32	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 15:32	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 15:32	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 15:32	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 15:32	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 15:32	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 15:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		72 - 130					02/20/12 15:32	1
4-Bromofluorobenzene (Surr)	100		69 - 121					02/20/12 15:32	1
Toluene-d8 (Surr)	100		70 - 123					02/20/12 15:32	1



Surrogate Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (72-130)	BFB (69-121)	TOL (70-123)
480-16320-1	BRINE	105	98	99
480-16320-2	TRIP BLANK	97	100	100
LCS 480-52148/4	Lab Control Sample	95	101	100
MB 480-52148/5	Method Blank	100	99	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 TOL = Toluene-d8 (Surr)

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBP (52-151)	FBP (44-120)	2FP (17-120)	NBZ (42-120)	PHL (10-120)	TPH (22-125)
480-16320-1	BRINE	112	84	70	90	86	26
LCS 480-52174/2-A	Lab Control Sample	109	85	54	91	41	90
LCS 480-52174/3-A	Lab Control Sample Dup	117	90	54	93	42	96
MB 480-52174/1-A	Method Blank	109	68	40	73	31	87

Surrogate Legend

TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 PHL = Phenol-d5
 TPH = p-Terphenyl-d14

Method: 608 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (15-125)	TCX1 (36-121)
480-16320-1	BRINE	0 X	0 X
LCS 480-52444/2-A	Lab Control Sample	-1 X	83
LCS 480-52444/3-A	Lab Control Sample Dup	15	76
MB 480-52444/1-A	Method Blank	18	84

Surrogate Legend

DCB = DCB Decachlorobiphenyl
 TCX = Tetrachloro-m-xylene

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-158)	TCX2 (18-146)
480-16320-1	BRINE	62	90
LCS 480-52270/2-A	Lab Control Sample	75	112

Surrogate Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-158)	TCX2 (18-146)
LCSD 480-52270/3-A	Lab Control Sample Dup	70	110
MB 480-52270/1-A	Method Blank	73	109

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene



QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-52148/5

Matrix: Water

Analysis Batch: 52148

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	0.60	ug/L			02/20/12 12:46	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 12:46	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 12:46	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 12:46	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 12:46	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 12:46	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 12:46	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 12:46	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 12:46	1
Chloromethane	ND		5.0	0.64	ug/L			02/20/12 12:46	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 12:46	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 12:46	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 12:46	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 12:46	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 12:46	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 12:46	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 12:46	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 12:46	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 12:46	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 12:46	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 12:46	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 12:46	1
Toluene	ND		5.0	0.45	ug/L			02/20/12 12:46	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 12:46	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 12:46	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 12:46	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 12:46	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 12:46	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 12:46	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 12:46	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 12:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		02/20/12 12:46	1
4-Bromofluorobenzene (Surr)	99		69 - 121		02/20/12 12:46	1
Toluene-d8 (Surr)	98		70 - 123		02/20/12 12:46	1

Lab Sample ID: LCS 480-52148/4

Matrix: Water

Analysis Batch: 52148

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	20.0	20.1		ug/L		101	64 - 136
Bromodichloromethane	20.0	19.5		ug/L		98	66 - 135
Bromoform	20.0	18.0		ug/L		90	71 - 129
Bromomethane	20.0	22.9		ug/L		115	14 - 186
Carbon tetrachloride	20.0	19.9		ug/L		100	73 - 127
Chlorobenzene	20.0	19.8		ug/L		99	66 - 134
Chloroethane	20.0	21.8		ug/L		109	38 - 162

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-52148/4
 Matrix: Water
 Analysis Batch: 52148

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec. Limits
	Added	Result	Qualifier				
2-Chloroethyl vinyl ether	100	104		ug/L		104	1 - 224
Chloroform	20.0	20.3		ug/L		102	68 - 133
Chloromethane	20.0	20.8		ug/L		104	1 - 204
Chlorodibromomethane	20.0	19.0		ug/L		95	68 - 133
1,1-Dichloroethane	20.0	20.1		ug/L		101	73 - 128
1,2-Dichloroethane	20.0	19.9		ug/L		100	68 - 132
1,1-Dichloroethene	20.0	18.2		ug/L		91	51 - 150
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	72 - 133
1,2-Dichloropropane	20.0	20.6		ug/L		103	34 - 166
cis-1,3-Dichloropropene	20.0	20.1		ug/L		101	24 - 176
trans-1,3-Dichloropropene	20.0	19.8		ug/L		99	50 - 150
Ethylbenzene	20.0	20.3		ug/L		102	59 - 141
Methylene Chloride	20.0	19.8		ug/L		99	61 - 140
1,1,2,2-Tetrachloroethane	20.0	20.4		ug/L		102	61 - 140
Tetrachloroethene	20.0	20.0		ug/L		100	74 - 127
Toluene	20.0	20.0		ug/L		100	75 - 126
1,1,1-Trichloroethane	20.0	20.9		ug/L		105	75 - 125
1,1,2-Trichloroethane	20.0	19.5		ug/L		98	71 - 129
Trichloroethene	20.0	20.2		ug/L		101	67 - 134
Vinyl chloride	20.0	21.3		ug/L		107	4 - 196
1,2-Dichlorobenzene	20.0	19.3		ug/L		97	63 - 137
1,3-Dichlorobenzene	20.0	19.6		ug/L		98	73 - 127
1,4-Dichlorobenzene	20.0	19.1		ug/L		96	63 - 137
Trichlorofluoromethane	20.0	23.5		ug/L		118	48 - 152

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	95		72 - 130
4-Bromofluorobenzene (Surr)	101		69 - 121
Toluene-d8 (Surr)	100		70 - 123

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-52174/1-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52174

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		5.0	0.060	ug/L		02/20/12 10:21	02/21/12 11:03	1
Acenaphthylene	ND		5.0	0.034	ug/L		02/20/12 10:21	02/21/12 11:03	1
Anthracene	ND		5.0	0.052	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzidine	ND		80	2.5	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[a]anthracene	0.216	J	5.0	0.043	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[a]pyrene	ND		5.0	0.058	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[b]fluoranthene	ND		5.0	0.062	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[g,h,i]perylene	ND		5.0	0.10	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[k]fluoranthene	ND		5.0	0.042	ug/L		02/20/12 10:21	02/21/12 11:03	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		02/20/12 10:21	02/21/12 11:03	1
Bis(2-chloroethoxy)methane	ND		5.0	0.085	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,2'-oxybis[1-chloropropane]	ND		5.0	0.086	ug/L		02/20/12 10:21	02/21/12 11:03	1

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-52174/1-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52174

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bis(2-ethylhexyl) phthalate	1.02	J	10	0.86	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 11:03	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		02/20/12 10:21	02/21/12 11:03	1
2-Chloronaphthalene	ND		5.0	0.068	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L		02/20/12 10:21	02/21/12 11:03	1
Chrysene	0.165	J	5.0	0.036	ug/L		02/20/12 10:21	02/21/12 11:03	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		02/20/12 10:21	02/21/12 11:03	1
Di-n-butyl phthalate	ND		5.0	0.94	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,2-Dichlorobenzene	ND		10	0.15	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,3-Dichlorobenzene	ND		10	0.069	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,4-Dichlorobenzene	ND		10	0.090	ug/L		02/20/12 10:21	02/21/12 11:03	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		02/20/12 10:21	02/21/12 11:03	1
Diethyl phthalate	ND		5.0	0.17	ug/L		02/20/12 10:21	02/21/12 11:03	1
Dimethyl phthalate	ND		5.0	0.17	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,6-Dinitrotoluene	ND		5.0	0.72	ug/L		02/20/12 10:21	02/21/12 11:03	1
Di-n-octyl phthalate	ND		5.0	4.5	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,2-Diphenylhydrazine	ND		10	0.063	ug/L		02/20/12 10:21	02/21/12 11:03	1
Fluoranthene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 11:03	1
Fluorene	ND		5.0	0.043	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachlorobenzene	ND		5.0	0.28	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachlorobutadiene	ND		5.0	0.62	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachloroethane	ND		5.0	0.48	ug/L		02/20/12 10:21	02/21/12 11:03	1
Indeno[1,2,3-cd]pyrene	0.211	J	5.0	0.19	ug/L		02/20/12 10:21	02/21/12 11:03	1
Isophorone	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 11:03	1
Naphthalene	ND		5.0	0.080	ug/L		02/20/12 10:21	02/21/12 11:03	1
Nitrobenzene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 11:03	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 11:03	1
N-Nitrosodimethylamine	ND		10	0.96	ug/L		02/20/12 10:21	02/21/12 11:03	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		02/20/12 10:21	02/21/12 11:03	1
Phenanthrene	ND		5.0	0.071	ug/L		02/20/12 10:21	02/21/12 11:03	1
Pyrene	ND		5.0	0.041	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,2,4-Trichlorobenzene	ND		10	0.49	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Chloro-3-methylphenol	ND		5.0	0.56	ug/L		02/20/12 10:21	02/21/12 11:03	1
2-Chlorophenol	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dichlorophenol	ND		5.0	0.30	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dimethylphenol	ND		5.0	0.13	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dinitrophenol	ND		10	0.84	ug/L		02/20/12 10:21	02/21/12 11:03	1
4,6-Dinitro-2-methylphenol	ND		10	0.76	ug/L		02/20/12 10:21	02/21/12 11:03	1
2-Nitrophenol	ND		5.0	0.14	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Nitrophenol	ND		10	1.3	ug/L		02/20/12 10:21	02/21/12 11:03	1
Pentachlorophenol	ND		10	0.41	ug/L		02/20/12 10:21	02/21/12 11:03	1
Phenol	ND		5.0	0.12	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 11:03	1

8

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	109		52 - 151	02/20/12 10:21	02/21/12 11:03	1
2-Fluorobiphenyl	68		44 - 120	02/20/12 10:21	02/21/12 11:03	1

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-52174/1-A

Matrix: Water

Analysis Batch: 52316

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 52174

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	40		17 - 120	02/20/12 10:21	02/21/12 11:03	1
Nitrobenzene-d5	73		42 - 120	02/20/12 10:21	02/21/12 11:03	1
Phenol-d5	31		10 - 120	02/20/12 10:21	02/21/12 11:03	1
p-Terphenyl-d14	87		22 - 125	02/20/12 10:21	02/21/12 11:03	1

Lab Sample ID: LCS 480-52174/2-A

Matrix: Water

Analysis Batch: 52316

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 52174

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Acenaphthene	100	89.4		ug/L		89	47 - 145
Acenaphthylene	100	90.4		ug/L		90	33 - 145
Anthracene	100	97.5		ug/L		98	27 - 133
Benzo[a]anthracene	100	98.9		ug/L		99	33 - 143
Benzo[a]pyrene	100	99.5		ug/L		100	17 - 163
Benzo[b]fluoranthene	100	99.1		ug/L		99	24 - 159
Benzo[g,h,i]perylene	100	102		ug/L		102	1 - 219
Benzo[k]fluoranthene	100	93.1		ug/L		93	11 - 162
Bis(2-chloroethyl)ether	100	80.6		ug/L		81	12 - 158
Bis(2-chloroethoxy)methane	100	86.8		ug/L		87	33 - 184
2,2'-oxybis[1-chloropropane]	100	76.3		ug/L		76	36 - 166
Bis(2-ethylhexyl) phthalate	100	107		ug/L		107	8 - 158
4-Bromophenyl phenyl ether	100	101		ug/L		101	53 - 127
Butyl benzyl phthalate	100	112		ug/L		112	1 - 152
2-Chloronaphthalene	100	81.0		ug/L		81	60 - 118
4-Chlorophenyl phenyl ether	100	92.5		ug/L		93	25 - 158
Chrysene	100	94.6		ug/L		95	17 - 168
Dibenz(a,h)anthracene	100	97.5		ug/L		98	1 - 227
Di-n-butyl phthalate	100	108		ug/L		108	1 - 118
1,2-Dichlorobenzene	100	55.2		ug/L		55	32 - 129
1,3-Dichlorobenzene	100	52.3		ug/L		52	1 - 172
1,4-Dichlorobenzene	100	52.8		ug/L		53	20 - 124
3,3'-Dichlorobenzidine	100	83.3		ug/L		83	1 - 262
Diethyl phthalate	100	105		ug/L		105	1 - 114
Dimethyl phthalate	100	99.9		ug/L		100	1 - 112
2,4-Dinitrotoluene	100	108		ug/L		108	39 - 139
2,6-Dinitrotoluene	100	111		ug/L		111	50 - 158
Di-n-octyl phthalate	100	115		ug/L		115	4 - 146
Fluoranthene	100	100		ug/L		100	26 - 137
Fluorene	100	94.7		ug/L		95	59 - 121
Hexachlorobenzene	100	99.3		ug/L		99	1 - 152
Hexachlorocyclopentadiene	100	62.4		ug/L		62	5 - 120
Hexachloroethane	100	50.2		ug/L		50	40 - 113
Indeno[1,2,3-cd]pyrene	100	95.6		ug/L		96	1 - 171
Isophorone	100	92.1		ug/L		92	21 - 196
Naphthalene	100	67.7		ug/L		68	21 - 133
Nitrobenzene	100	87.0		ug/L		87	35 - 180
N-Nitrosodi-n-propylamine	100	93.7		ug/L		94	1 - 230
N-Nitrosodiphenylamine	100	103		ug/L		103	54 - 125

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-52174/2-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
Phenanthrene	100	96.0		ug/L		96	54 - 120	
Pyrene	100	95.4		ug/L		95	52 - 115	
1,2,4-Trichlorobenzene	100	57.2		ug/L		57	44 - 142	
4-Chloro-3-methylphenol	100	100		ug/L		100	22 - 147	
2-Chlorophenol	100	82.5		ug/L		83	23 - 134	
2,4-Dichlorophenol	100	91.2		ug/L		91	39 - 135	
2,4-Dimethylphenol	100	93.9		ug/L		94	32 - 119	
2,4-Dinitrophenol	100	89.9		ug/L		90	1 - 191	
4,6-Dinitro-2-methylphenol	100	103		ug/L		103	1 - 181	
2-Nitrophenol	100	92.1		ug/L		92	29 - 182	
4-Nitrophenol	100	62.8		ug/L		63	1 - 132	
Pentachlorophenol	100	107		ug/L		107	14 - 176	
Phenol	100	43.8		ug/L		44	5 - 112	
2,4,6-Trichlorophenol	100	103		ug/L		103	37 - 144	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	109		52 - 151
2-Fluorobiphenyl	85		44 - 120
2-Fluorophenol	54		17 - 120
Nitrobenzene-d5	91		42 - 120
Phenol-d5	41		10 - 120
p-Terphenyl-d14	90		22 - 125

Lab Sample ID: LCSD 480-52174/3-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 52174

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	100	95.0		ug/L		95	47 - 145	6	25
Acenaphthylene	100	96.4		ug/L		96	33 - 145	6	22
Anthracene	100	104		ug/L		104	27 - 133	6	15
Benzo[a]anthracene	100	105		ug/L		105	33 - 143	6	15
Benzo[a]pyrene	100	107		ug/L		107	17 - 163	8	15
Benzo[b]fluoranthene	100	105		ug/L		105	24 - 159	6	17
Benzo[g,h,i]perylene	100	109		ug/L		109	1 - 219	6	19
Benzo[k]fluoranthene	100	101		ug/L		101	11 - 162	9	19
Bis(2-chloroethyl)ether	100	83.6		ug/L		84	12 - 158	4	33
Bis(2-chloroethoxy)methane	100	90.7		ug/L		91	33 - 184	4	23
2,2'-oxybis[1-chloropropane]	100	79.8		ug/L		80	36 - 166	4	36
Bis(2-ethylhexyl) phthalate	100	115		ug/L		115	8 - 158	6	15
4-Bromophenyl phenyl ether	100	107		ug/L		107	53 - 127	6	16
Butyl benzyl phthalate	100	119		ug/L		119	1 - 152	6	15
2-Chloronaphthalene	100	86.5		ug/L		87	60 - 118	7	30
4-Chlorophenyl phenyl ether	100	99.0		ug/L		99	25 - 158	7	15
Chrysene	100	100		ug/L		100	17 - 168	6	15
Dibenz(a,h)anthracene	100	104		ug/L		104	1 - 227	7	18
Di-n-butyl phthalate	100	115		ug/L		115	1 - 118	6	15
1,2-Dichlorobenzene	100	56.1		ug/L		56	32 - 129	2	38
1,3-Dichlorobenzene	100	53.1		ug/L		53	1 - 172	2	37

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-52174/3-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 52174

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Added	Result	Qualifier						
1,4-Dichlorobenzene	100	53.6		ug/L		54	20 - 124	-2	40
3,3'-Dichlorobenzidine	100	87.0		ug/L		87	1 - 262	4	31
Diethyl phthalate	100	112		ug/L		112	1 - 114	6	15
Dimethyl phthalate	100	107		ug/L		107	1 - 112	6	15
2,4-Dinitrotoluene	100	116		ug/L		116	39 - 139	7	20
2,6-Dinitrotoluene	100	119		ug/L		119	50 - 158	7	17
Di-n-octyl phthalate	100	123		ug/L		123	4 - 146	6	15
Fluoranthene	100	107		ug/L		107	26 - 137	6	15
Fluorene	100	101		ug/L		101	59 - 121	7	18
Hexachlorobenzene	100	105		ug/L		105	1 - 152	5	15
Hexachlorocyclopentadiene	100	65.7		ug/L		66	5 - 120	5	50
Hexachloroethane	100	51.2		ug/L		51	40 - 113	2	43
Indeno[1,2,3-cd]pyrene	100	102		ug/L		102	1 - 171	7	17
Isophorone	100	96.3		ug/L		96	21 - 196	4	21
Naphthalene	100	70.1		ug/L		70	21 - 133	3	31
Nitrobenzene	100	90.6		ug/L		91	35 - 180	4	27
N-Nitrosodi-n-propylamine	100	101		ug/L		101	1 - 230	7	23
N-Nitrosodiphenylamine	100	111		ug/L		111	54 - 125	7	15
Phenanthrene	100	101		ug/L		101	54 - 120	5	16
Pyrene	100	101		ug/L		101	52 - 115	5	15
1,2,4-Trichlorobenzene	100	59.2		ug/L		59	44 - 142	3	34
4-Chloro-3-methylphenol	100	106		ug/L		106	22 - 147	5	16
2-Chlorophenol	100	85.2		ug/L		85	23 - 134	3	26
2,4-Dichlorophenol	100	93.8		ug/L		94	39 - 135	3	23
2,4-Dimethylphenol	100	95.0		ug/L		95	32 - 119	1	18
2,4-Dinitrophenol	100	94.2		ug/L		94	1 - 191	5	29
4,6-Dinitro-2-methylphenol	100	111		ug/L		111	1 - 181	7	30
2-Nitrophenol	100	96.2		ug/L		96	29 - 182	4	28
4-Nitrophenol	100	66.1		ug/L		66	1 - 132	5	24
Pentachlorophenol	100	113		ug/L		113	14 - 176	6	21
Phenol	100	45.3		ug/L		45	5 - 112	3	36
2,4,6-Trichlorophenol	100	109		ug/L		109	37 - 144	6	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	117		52 - 151
2-Fluorobiphenyl	90		44 - 120
2-Fluorophenol	54		17 - 120
Nitrobenzene-d5	93		42 - 120
Phenol-d5	42		10 - 120
p-Terphenyl-d14	96		22 - 125

Method: 608 - Organochlorine Pesticides in Water

Lab Sample ID: MB 480-52444/1-A
 Matrix: Water
 Analysis Batch: 52783

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52444

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin	ND		0.050	0.0066	ug/L		02/22/12 07:58	02/24/12 13:24	1

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 480-52444/1-A
 Matrix: Water
 Analysis Batch: 52783

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52444

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
alpha-BHC	ND		0.050	0.0066	ug/L		02/22/12 07:58	02/24/12 13:24	1
beta-BHC	ND		0.050	0.025	ug/L		02/22/12 07:58	02/24/12 13:24	1
delta-BHC	ND		0.050	0.010	ug/L		02/22/12 07:58	02/24/12 13:24	1
gamma-BHC (Lindane)	ND		0.050	0.0060	ug/L		02/22/12 07:58	02/24/12 13:24	1
Chlordane (technical)	ND		0.50	0.029	ug/L		02/22/12 07:58	02/24/12 13:24	1
4,4'-DDD	ND		0.050	0.0092	ug/L		02/22/12 07:58	02/24/12 13:24	1
4,4'-DDE	ND		0.050	0.012	ug/L		02/22/12 07:58	02/24/12 13:24	1
4,4'-DDT	ND		0.050	0.011	ug/L		02/22/12 07:58	02/24/12 13:24	1
Dieldrin	ND		0.050	0.0098	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endosulfan I	ND		0.050	0.011	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endosulfan II	ND		0.050	0.012	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endrin	ND		0.050	0.014	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endrin aldehyde	ND		0.050	0.016	ug/L		02/22/12 07:58	02/24/12 13:24	1
Heptachlor	ND		0.050	0.0085	ug/L		02/22/12 07:58	02/24/12 13:24	1
Heptachlor epoxide	ND		0.050	0.0053	ug/L		02/22/12 07:58	02/24/12 13:24	1
Toxaphene	ND		0.50	0.12	ug/L		02/22/12 07:58	02/24/12 13:24	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	18		15 - 125	02/22/12 07:58	02/24/12 13:24	1
Tetrachloro-m-xylene	84		36 - 121	02/22/12 07:58	02/24/12 13:24	1

Lab Sample ID: LCS 480-52444/2-A
 Matrix: Water
 Analysis Batch: 52783

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52444

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Aldrin	0.500	0.350		ug/L		70	35 - 120
alpha-BHC	0.500	0.403		ug/L		81	39 - 121
beta-BHC	0.500	0.412		ug/L		82	39 - 138
delta-BHC	0.500	0.404		ug/L		81	40 - 121
gamma-BHC (Lindane)	0.500	0.399		ug/L		80	54 - 134
4,4'-DDD	0.500	0.394		ug/L		79	54 - 142
4,4'-DDE	0.500	0.344		ug/L		69	48 - 128
4,4'-DDT	0.500	0.363		ug/L		73	53 - 136
Dieldrin	0.500	0.397		ug/L		79	52 - 132
Endosulfan I	0.500	0.370		ug/L		74	47 - 126
Endosulfan II	0.500	0.395		ug/L		79	48 - 134
Endosulfan sulfate	0.500	0.438		ug/L		88	57 - 140
Endrin	0.500	0.434		ug/L		87	54 - 135
Endrin aldehyde	0.500	0.409		ug/L		82	55 - 132
Heptachlor	0.500	0.395		ug/L		79	42 - 126
Heptachlor epoxide	0.500	0.399		ug/L		80	53 - 134

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	-1	X	15 - 125
Tetrachloro-m-xylene	83		36 - 121

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 480-52444/3-A
 Matrix: Water
 Analysis Batch: 52783

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 52444

Analyte	Spike Added	LCSD		Unit	D	%Rec.	%Rec.		RPD	Limit
		Result	Qualifier				Limits	RPD		
Aldrin	0.500	0.326		ug/L		65	35 - 120	7	50	
alpha-BHC	0.500	0.383		ug/L		77	39 - 121	5	50	
beta-BHC	0.500	0.388		ug/L		78	39 - 138	6	50	
delta-BHC	0.500	0.385		ug/L		77	40 - 121	5	50	
gamma-BHC (Lindane)	0.500	0.374		ug/L		75	54 - 134	6	50	
4,4'-DDD	0.500	0.380		ug/L		76	54 - 142	4	50	
4,4'-DDE	0.500	0.363		ug/L		73	48 - 128	5	50	
4,4'-DDT	0.500	0.371		ug/L		74	53 - 136	2	50	
Dieldrin	0.500	0.376		ug/L		75	52 - 132	5	50	
Endosulfan I	0.500	0.353		ug/L		71	47 - 126	5	50	
Endosulfan II	0.500	0.381		ug/L		76	48 - 134	4	50	
Endosulfan sulfate	0.500	0.413		ug/L		83	57 - 140	6	50	
Endrin	0.500	0.412		ug/L		82	54 - 135	5	50	
Endrin aldehyde	0.500	0.390		ug/L		78	55 - 132	5	50	
Heptachlor	0.500	0.369		ug/L		74	42 - 126	7	50	
Heptachlor epoxide	0.500	0.377		ug/L		75	53 - 134	6	50	

8

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	15		15 - 125
Tetrachloro-m-xylene	76		36 - 121

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 480-52270/1-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52270

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1221	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1232	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1242	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1248	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1254	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1260	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1262	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1268	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	73		10 - 158	02/21/12 07:54	02/21/12 16:57	1
Tetrachloro-m-xylene	109		18 - 146	02/21/12 07:54	02/21/12 16:57	1

Lab Sample ID: LCS 480-52270/2-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52270

Analyte	Spike Added	LCS		Unit	D	%Rec.	%Rec.	
		Result	Qualifier				Limits	RPD
PCB-1016	1.00	0.843		ug/L		84	44 - 154	
PCB-1260	1.00	0.840		ug/L		84	34 - 150	

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 480-52270/2-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52270

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	75		10 - 158
Tetrachloro-m-xylene	112		18 - 146

Lab Sample ID: LCSD 480-52270/3-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 52270

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec.		RPD	Limit
		Result	Qualifier				Limits	RPD		
PCB-1016	1.00	0.936		ug/L		94	44 - 154	10	30	
PCB-1260	1.00	0.832		ug/L		83	34 - 150	1	30	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	70		10 - 158
Tetrachloro-m-xylene	110		18 - 146

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-52385/1-A
 Matrix: Water
 Analysis Batch: 52637

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52385

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		0.020	0.0068	mg/L		02/22/12 08:15	02/22/12 16:55	1
Arsenic	ND		0.010	0.0056	mg/L		02/22/12 08:15	02/22/12 16:55	1
Beryllium	ND		0.0020	0.00030	mg/L		02/22/12 08:15	02/22/12 16:55	1
Cadmium	ND		0.0010	0.00033	mg/L		02/22/12 08:15	02/22/12 16:55	1
Calcium	0.203	J	0.50	0.10	mg/L		02/22/12 08:15	02/22/12 16:55	1
Chromium	ND		0.0040	0.00087	mg/L		02/22/12 08:15	02/22/12 16:55	1
Copper	ND		0.010	0.0015	mg/L		02/22/12 08:15	02/22/12 16:55	1
Lead	ND		0.0050	0.0030	mg/L		02/22/12 08:15	02/22/12 16:55	1
Magnesium	ND		0.20	0.043	mg/L		02/22/12 08:15	02/22/12 16:55	1
Nickel	ND		0.010	0.0013	mg/L		02/22/12 08:15	02/22/12 16:55	1
Selenium	ND		0.015	0.0087	mg/L		02/22/12 08:15	02/22/12 16:55	1
Silver	ND		0.0030	0.0017	mg/L		02/22/12 08:15	02/22/12 16:55	1
Sodium	0.877	J	1.0	0.32	mg/L		02/22/12 08:15	02/22/12 16:55	1
Thallium	ND		0.020	0.010	mg/L		02/22/12 08:15	02/22/12 16:55	1
Zinc	ND		0.010	0.0017	mg/L		02/22/12 08:15	02/22/12 16:55	1

Lab Sample ID: LCS 480-52385/2-A
 Matrix: Water
 Analysis Batch: 52637

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52385

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	RPD
Antimony	0.200	0.201		mg/L		101	85 - 115	
Arsenic	0.200	0.204		mg/L		102	85 - 115	
Beryllium	0.200	0.203		mg/L		102	85 - 115	
Cadmium	0.200	0.207		mg/L		103	85 - 115	
Calcium	10.0	10.05		mg/L		100	85 - 115	
Chromium	0.200	0.206		mg/L		103	85 - 115	

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-52385/2-A
 Matrix: Water
 Analysis Batch: 52637

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52385

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Copper	0.200	0.208		mg/L		104	85 - 115
Lead	0.200	0.202		mg/L		101	85 - 115
Magnesium	10.0	9.84		mg/L		98	85 - 115
Nickel	0.200	0.198		mg/L		99	85 - 115
Selenium	0.200	0.205		mg/L		103	85 - 115
Silver	0.0500	0.0492		mg/L		98	85 - 115
Sodium	10.0	10.40		mg/L		104	85 - 115
Thallium	0.200	0.210		mg/L		105	85 - 115
Zinc	0.200	0.200		mg/L		100	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-52143/1-A
 Matrix: Water
 Analysis Batch: 52218

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52143

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020	0.00012	mg/L		02/20/12 09:05	02/20/12 13:16	1

Lab Sample ID: LCS 480-52143/2-A
 Matrix: Water
 Analysis Batch: 52218

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52143

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Mercury	0.00667	0.00682		mg/L		102	85 - 115

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: LCS 480-52321/1
 Matrix: Water
 Analysis Batch: 52321

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Specific Conductance	998	1047		umhos/cm		105	90 - 110

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-52389/1-A
 Matrix: Water
 Analysis Batch: 52391

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52389

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Oil & Grease	ND		5.0	1.4	mg/L		02/21/12 15:10	02/21/12 15:18	1

Lab Sample ID: LCS 480-52389/2-A
 Matrix: Water
 Analysis Batch: 52391

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52389

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Oil & Grease	38.5	31.54		mg/L		82	78 - 114

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-52257/1-A
 Matrix: Water
 Analysis Batch: 52395

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52257

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Cyanide, Total			ND		0.010	0.0050	mg/L		02/20/12 17:00	02/21/12 14:53		1

Lab Sample ID: LCS 480-52257/2-A
 Matrix: Water
 Analysis Batch: 52395

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52257

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits
Cyanide, Total	Added	0.400	0.479	*		mg/L		120	90 - 110	

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-52253/1-A
 Matrix: Water
 Analysis Batch: 52948

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52253

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Phenolics, Total Recoverable			0.00603	J	0.010	0.0050	mg/L		02/20/12 16:00	02/25/12 09:00		1

Lab Sample ID: LCS 480-52253/2-A
 Matrix: Water
 Analysis Batch: 52948

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52253

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits
Phenolics, Total Recoverable	Added	0.100	0.0961			mg/L		96	90 - 110	

Method: 9020 - Organic Halides, Total (TOX)

Lab Sample ID: MB 480-52866/1
 Matrix: Water
 Analysis Batch: 52866

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Halogens, Total Organic			ND		20.0	6.5	ug/L			02/24/12 13:40		1

Lab Sample ID: LCS 480-52866/2
 Matrix: Water
 Analysis Batch: 52866

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits
Halogens, Total Organic	Added	100	104.9			ug/L		105	75 - 125	

Method: 9040B - pH

Lab Sample ID: LCS 480-52085/1
 Matrix: Water
 Analysis Batch: 52085

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits
pH	Added	7.00	6.990			SU		100	99 - 101	

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-53807/27
 Matrix: Water
 Analysis Batch: 53807

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0	0.43	mg/L			03/03/12 06:02	1

Lab Sample ID: LCS 480-53807/28
 Matrix: Water
 Analysis Batch: 53807

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	30.0	30.82		mg/L		103	90 - 110

8

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 480-52580/1
 Matrix: Water
 Analysis Batch: 52580

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0	4.0	mg/L			02/22/12 19:00	1

Lab Sample ID: LCS 480-52580/2
 Matrix: Water
 Analysis Batch: 52580

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	515	484.0		mg/L		94	85 - 115

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-52263/39
 Matrix: Water
 Analysis Batch: 52263

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.46	mg/L			02/20/12 20:34	1

Lab Sample ID: MB 480-52263/60
 Matrix: Water
 Analysis Batch: 52263

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.46	mg/L			02/20/12 22:36	1

Lab Sample ID: MB 480-52263/66
 Matrix: Water
 Analysis Batch: 52263

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.46	mg/L			02/20/12 23:36	1

QC Sample Results

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 480-52263/38
Matrix: Water
Analysis Batch: 52263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.78		mg/L		107	90 - 110

Lab Sample ID: LCS 480-52263/65
Matrix: Water
Analysis Batch: 52263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.65		mg/L		107	90 - 110



QC Association Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

GC/MS VOA

Analysis Batch: 52148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	624	
480-16320-2	TRIP BLANK	Total/NA	Water	624	
LCS 480-52148/4	Lab Control Sample	Total/NA	Water	624	
MB 480-52148/5	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 52174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	625	
LCS 480-52174/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-52174/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 480-52174/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 52316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	625	52174
LCS 480-52174/2-A	Lab Control Sample	Total/NA	Water	625	52174
LCSD 480-52174/3-A	Lab Control Sample Dup	Total/NA	Water	625	52174
MB 480-52174/1-A	Method Blank	Total/NA	Water	625	52174

GC Semi VOA

Prep Batch: 52270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	3510C	
LCS 480-52270/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-52270/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-52270/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 52404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	608	52270
LCS 480-52270/2-A	Lab Control Sample	Total/NA	Water	608	52270
LCSD 480-52270/3-A	Lab Control Sample Dup	Total/NA	Water	608	52270
MB 480-52270/1-A	Method Blank	Total/NA	Water	608	52270

Prep Batch: 52444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	3510C	
LCS 480-52444/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-52444/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-52444/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 52783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	608	52444
LCS 480-52444/2-A	Lab Control Sample	Total/NA	Water	608	52444
LCSD 480-52444/3-A	Lab Control Sample Dup	Total/NA	Water	608	52444
MB 480-52444/1-A	Method Blank	Total/NA	Water	608	52444

QC Association Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Metals

Prep Batch: 52143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	245.1	
LCS 480-52143/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 480-52143/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 52218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	245.1	52143
LCS 480-52143/2-A	Lab Control Sample	Total/NA	Water	245.1	52143
MB 480-52143/1-A	Method Blank	Total/NA	Water	245.1	52143

Prep Batch: 52385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7	
LCS 480-52385/2-A	Lab Control Sample	Total/NA	Water	200.7	
MB 480-52385/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 52637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385
LCS 480-52385/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	52385
MB 480-52385/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	52385

Analysis Batch: 53019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385

Analysis Batch: 53451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385

General Chemistry

Analysis Batch: 52085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	9040B	
LCS 480-52085/1	Lab Control Sample	Total/NA	Water	9040B	

Prep Batch: 52253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	Distill/Phenol	
LCS 480-52253/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
MB 480-52253/1-A	Method Blank	Total/NA	Water	Distill/Phenol	

Prep Batch: 52257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	Distill/CN	
LCS 480-52257/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 480-52257/1-A	Method Blank	Total/NA	Water	Distill/CN	

9

QC Association Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

General Chemistry (Continued)

Analysis Batch: 52263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	SM 4500 Cl- E	
LCS 480-52263/38	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-52263/65	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 480-52263/39	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-52263/60	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-52263/66	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 52321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	120.1	
LCS 480-52321/1	Lab Control Sample	Total/NA	Water	120.1	

Prep Batch: 52389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	1664A	
LCS 480-52389/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 480-52389/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 52391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	1664A	52389
LCS 480-52389/2-A	Lab Control Sample	Total/NA	Water	1664A	52389
MB 480-52389/1-A	Method Blank	Total/NA	Water	1664A	52389

Analysis Batch: 52395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	335.4	52257
LCS 480-52257/2-A	Lab Control Sample	Total/NA	Water	335.4	52257
MB 480-52257/1-A	Method Blank	Total/NA	Water	335.4	52257

Analysis Batch: 52580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	SM 2540C	
LCS 480-52580/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 480-52580/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 52866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	9020	
LCS 480-52866/2	Lab Control Sample	Total/NA	Water	9020	
MB 480-52866/1	Method Blank	Total/NA	Water	9020	

Analysis Batch: 52948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	420.4	52253
LCS 480-52253/2-A	Lab Control Sample	Total/NA	Water	420.4	52253
MB 480-52253/1-A	Method Blank	Total/NA	Water	420.4	52253

Analysis Batch: 53807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	9060	
LCS 480-53807/28	Lab Control Sample	Total/NA	Water	9060	

QC Association Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

General Chemistry (Continued)

Analysis Batch: 53807 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-53807/27	Method Blank	Total/NA	Water	9060	



Lab Chronicle

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	52148	02/20/12 15:09	TRB	TAL BUF
Total/NA	Prep	625			52174	02/20/12 10:21	TR	TAL BUF
Total/NA	Analysis	625		1	52316	02/21/12 12:15	AM	TAL BUF
Total/NA	Prep	3510C			52270	02/21/12 07:54	MZ	TAL BUF
Total/NA	Analysis	608		1	52404	02/21/12 18:28	JM	TAL BUF
Total/NA	Prep	3510C			52444	02/22/12 07:58	TR	TAL BUF
Total/NA	Analysis	608		5	52783	02/24/12 18:11	DB	TAL BUF
Total/NA	Prep	245.1			52143	02/20/12 09:05	JM	TAL BUF
Total/NA	Analysis	245.1		1	52218	02/20/12 13:50	JM	TAL BUF
Total/NA	Prep	200.7			52385	02/22/12 08:15	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	52637	02/22/12 18:17	LH	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		10	53019	02/24/12 23:11	LH	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		50	53019	02/24/12 23:18	LH	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		50	53451	02/29/12 22:49	AH	TAL BUF
Total/NA	Analysis	9040B		1	52085	02/17/12 19:28	KS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		6050	52263	02/20/12 23:36	KS	TAL BUF
Total/NA	Analysis	120.1		1	52321	02/21/12 09:56	JS	TAL BUF
Total/NA	Prep	1664A			52389	02/21/12 15:10	EGN	TAL BUF
Total/NA	Analysis	1664A		1	52391	02/21/12 15:18	EGN	TAL BUF
Total/NA	Prep	Distill/CN			52257	02/20/12 17:00	ML	TAL BUF
Total/NA	Analysis	335.4		1	52395	02/21/12 15:00	JR	TAL BUF
Total/NA	Analysis	SM 2540C		1	52580	02/22/12 19:10	KJ	TAL BUF
Total/NA	Analysis	9020		1	52866	02/27/12 07:29	JM	TAL BUF
Total/NA	Prep	Distill/Phenol			52253	02/20/12 19:46	KS	TAL BUF
Total/NA	Analysis	420.4		5	52948	02/25/12 10:40	PN	TAL BUF
Total/NA	Analysis	9060		1	53807	03/03/12 18:28	KAC	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	52148	02/20/12 15:32	TRB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas DEQ	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Georgia	State Program	4	N/A
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Kentucky (UST)	State Program	4	30
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	USDA	Federal		P330-08-00242
TestAmerica Buffalo	Virginia	NELAC Secondary AB	3	460185
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	West Virginia DEP	State Program	3	252
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL BUF
608	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
120.1	Conductivity, Specific Conductance	MCAWW	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
9020	Organic Halides, Total (TOX)	SW846	TAL BUF
9040B	pH	SW846	TAL BUF
9060	Organic Carbon, Total (TOC)	SW846	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 4500 Cl- E	Chloride, Total	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



Sample Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-16320-1	BRINE	Water	02/17/12 01:20	02/17/12 15:50
480-16320-2	TRIP BLANK	Water	02/17/12 01:20	02/17/12 15:50



TestAmerica Buffalo
 10 Hazelwood Drive
 Amherst, NY 14226-2298
 Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information		COC No: 480-21372-1755.1	
Client Contact: Dave Harty		Page: Page 1 of 1	
Company: Frontier Technical Associates		Job #:	
Address: 9120 Main Street		Camera Tracking (Yes):	
City:	Clarence	Lab PM: Schove, John	
State Zc:	NY, 14031	E-Mail: john.schove@testamericainc.com	
Phone:		Lab PM: Schove, John	
Email: davenport@aol.com		E-Mail: john.schove@testamericainc.com	
Project Name: Brine Priority Pollutant Analysis		Analysis Requested	
Site: NYC WALSVILLE		9020 Calc - Halogens, Total Organic 1201, 5040B 335A - Cyanide, Total 2540C Calc - Total Dissolved Solids 525 - Priority Pollutant List - SVOA - 525 508 - Pest - Priority Pollutant Pesticides 908 PCB - (MCD) Local Method 524 - 5ml - (MCD) Priority Pollutant List - VOA - 52 9060 - Total Organic Carbon 420A - Phenolics, Total Recoverable 1554A Calc - Oil & Grease 2007, 2451 SM4500, Cl, E - Chloride 9020 Calc - Halogens, Total Organic 1201, 5040B 335A - Cyanide, Total 2540C Calc - Total Dissolved Solids 525 - Priority Pollutant List - SVOA - 525 508 - Pest - Priority Pollutant Pesticides 908 PCB - (MCD) Local Method 524 - 5ml - (MCD) Priority Pollutant List - VOA - 52 9060 - Total Organic Carbon 420A - Phenolics, Total Recoverable 1554A Calc - Oil & Grease 2007, 2451 SM4500, Cl, E - Chloride	
Due Date Requested:		Special Instructions/Note:	
TAT Requested (days):			
PO #: DNYG1000008411			
WO #:			
Project #:	48002956		
SSDW#:			
Sample Date	8/12/12		
Sample Time	1:20		
Sample Type (C=comp, G=grab)	G		
Matrix (Weigh, Sample, Composite, BT-Tissue, Ash)	Water		
	Water		
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by:	Date: 8/12/12 3:50	Time:	
Relinquished by:	Date/Time:	Received by:	
Relinquished by:	Date/Time:	Received by:	
Custody Seal Intact: A Yes A No	Custody Seal No.	Cooler Temperature(s) and Other Remarks: 1.9 Hz	

Login Sample Receipt Checklist

Client: National Fuel Gas Supply Company

Job Number: 480-16320-1

Login Number: 16320

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8 #2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	FRONTIER ASS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

New York State Department of Environmental Conservation

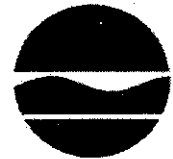
Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

MAY 14 2012

Mr. Scott D. Murphy
Highway Superintendent
Town of Jasper
Drawer 10
Jasper, NY 14855

Dear Mr. Murphy:

Re: Brine Bud # **B048-12** – Dust Control and Road Stabilization

We have reviewed the information submitted in your March 24, 2012 petition for the proposed beneficial use of brine from the National Fuel Gas facility located in Wellsville, New York and the National Fuel Gas facility located in Andover, New York as part of your dust control and road stabilization system. We have also reviewed the analytical report provided by National Fuel Gas for brine from the above sources dated March 6, 2012. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- All vehicles transporting and spreading brine must have a valid Part 364 permit.
- Dust control activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied within 50 feet of any stream, creek, lake or other body of water or in a manner that could cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be spread after daylight hours, during rain or when rain is imminent or on sections of road having a grade exceeding 10 percent.
- Brine is approved for road spreading use on the unpaved sections of Town of Jasper roads as listed and outlined on the submitted map. Brine may be applied a maximum of twenty times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

Town of Jasper
Drawer 10, Jasper, NY 14855
Phone/Fax: 607-792-3791
jasperhighwaydept@yahoo.com

March 24, 2012

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Materials Management
625 Broadway 9th Floor
Albany, NY 12233-7253

Division of Solid and Hazardous Materials

I Scott D. Murphy am seeking approval for the 364 Permit. I am Jasper Town Highway Superintendent; my address is Drawer 10, Jasper, NY 14855. The phone number at the town barns is 607-792-3791.

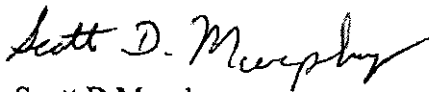
The addresses where the brine will be hauled from are:

1. 1161 Peet Road, Wellsville, NY 14895
2. 2210 County Road 22, Andover NY 14806

The brine will be applied by a spreader bar with a shut-off control in the cab of the truck. For road stabilization and dust control, the brine will be applied during daylight hours; it will not be applied within 50 feet of streams, creeks, lakes, or other bodies of water. It will not be applied to any road having a grade exceeding 10 percent or on wet roads, during rain or when rain is eminent, it will not be used for road deicing. The brine will be applied in small enough amounts that it does not run off.

If you have any questions, please feel free to call this office at (607) 792-3791. I am in the office Monday thru Thursday 6:00 a.m. to 4:30 p.m. I can also be faxed at the same number.

Sincerely yours



Scott D Murphy
Jasper Town Highway Superintendent

Enclosures

CF 3/24/12



JASPER

Dennis Corners

Hampshire

21

36

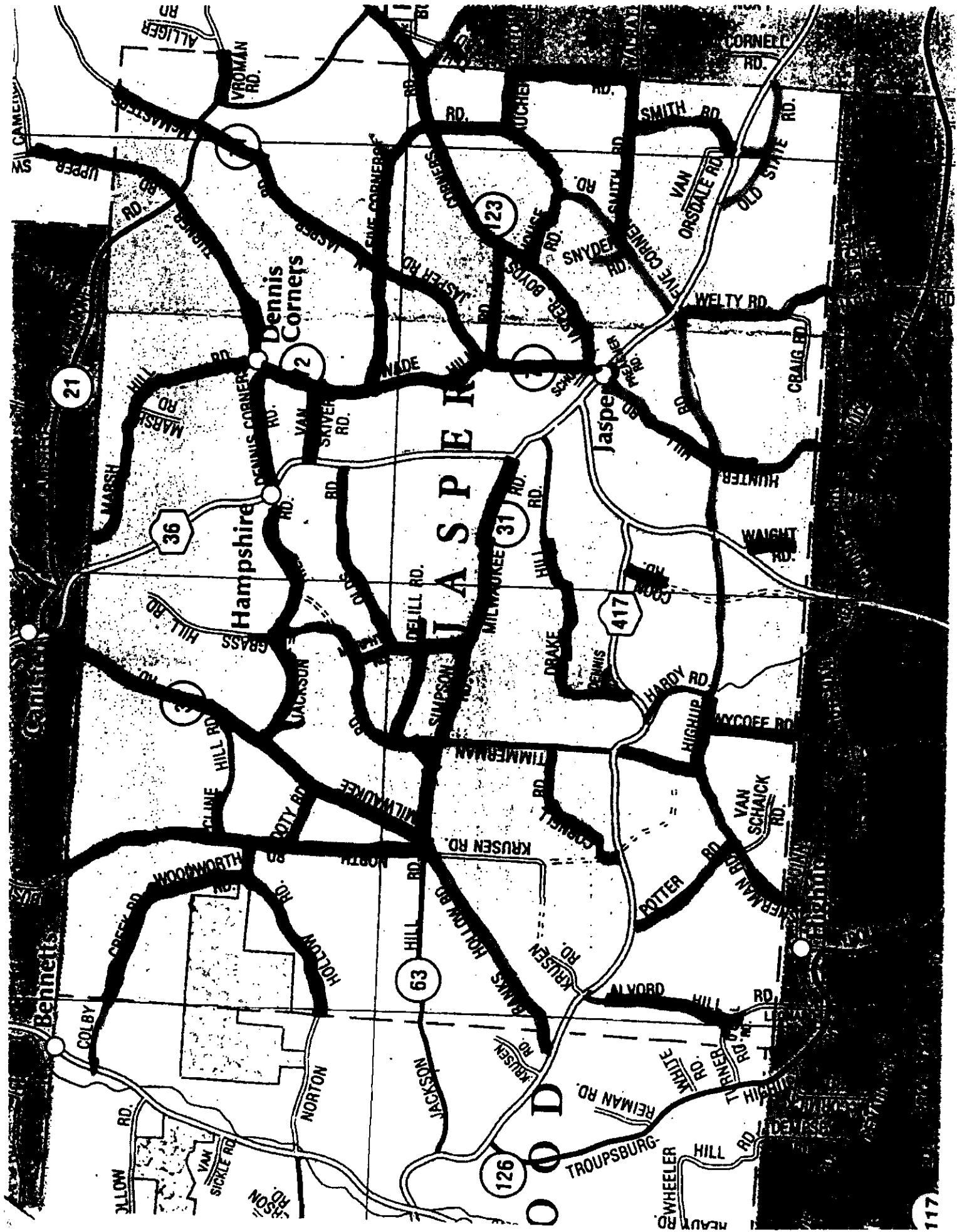
31

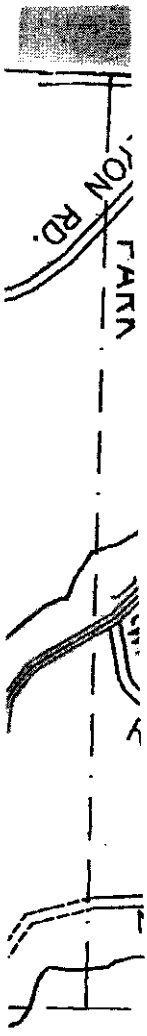
417

63

126

117





- 1 OAK HILL
- 2 OREGON
- 3 ELLISON
- 4 STONE HOUSE
- 5 GULF
- 6 BONNY
- 7 CAMERON-NORTH
- 8 WEST CAMERON
- 9 SAUERBIER
- 10 CLINTON
- 11 PUMP STATION
- 12 YOST
- 13 JACKSON HILL
- 14 OWENS
- 15 WHEATON
- 16 COON
- 17 SOUTH CHURCH
- 18 McMASTER
- 19 LYON
- 20 ALLEN

- 21 SWALE
- 22 ANGEL
- 23 BUMP
- 24 COSS CORNERS
- 25 LEWIS
- 26 SHAUGER ROAD EXT.
- 27 CLARK
- 28 WITCUS
- 29 BALD HILL
- 30 COVEL
- 31 PAGE
- 32 HALLETT
- 33 BENEDICT
- 34 ZEH
- 35 BARRETT
- 36 WILSON
- 37 DEPOT ST.
- 38 BATH ST.
- 39 RAILROAD ST.
- 40 UPPER SWALE

- 41 ALLIGER
- 42 WINDFALL
- 43 BLOOM
- 44 KNOTT
- 45 CARTWRIGHT
- 46 MAYLAND
- 47 MATT DICKEY
- 48 THOMAS
- 49 SHAUGER
- 50 BARRETT ROAD EXT.

*All Roads in
Town of CAMERON*

121 LAUREL MILES



National Fuel & Gas - Buffalo, NY
 365 Mineral Springs Rd Bldg 8
 Buffalo, NY 14221

Work Order: RTD1040
 Received: 04/09/10
 Reported: 04/29/10 10:10
 Project: Btme - Priority Pollutant Analysis
 Project Number: NFG

**TestAmerica Buffalo
 Current Certifications**

As of 12/21/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA, NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SWCS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP, SDWA, CWA, RCRA	NY456
New York*	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA, RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	1104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington*	NELAP CWA, RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA, RCRA	282

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14226 tel 718-691-2600 fax 718-691-7991
 www.testamericainc.com

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

DATA QUALIFIERS AND DEFINITIONS

B Analyte was detected in the associated Method Blank.
D02 Dilution required due to sample matrix effects
D08 Dilution required due to high concentration of target analyte(s)
D16 Sample weight / volume has been reduced to eliminate matrix interference. Reporting limits have been adjusted accordingly.
E Concentration exceeds the calibration range and therefore result is semi-quantitative.
HFT The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
L Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
L1 Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
MNR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
QSU Sulfur (EPA 3660) clean-up performed on extract.
S9 Unable to digest full amount of sample due to matrix problem.
NR Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
305 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10

Reported: 04/29/10 10:10

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water)							Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55	
<u>Volatile Organic Compounds</u>										
Benzene	36		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloromethane	2.7	J	5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Toluene	5.2		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
<u>Acid and Base/Neutral Extractables by EPA Method 625</u>										
2,4-Dimethylphenol	0.15	J	4.9	0.13	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Naphthalene	0.17	J	4.9	0.079	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenol	13		4.9	0.12	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
<u>Organochlorine Pesticides and PCBs by EPA Method 608</u>										
gamma-BHC (Lindane) [2C]	0.028	J	0.049	0.0058	ug/L	1.00	04/15/10 13:23	DGB	10D0889	608
<u>Total Metals by EPA 200 Series Methods</u>										
Arsenic	0.0145		0.0100	0.0056	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Beryllium	0.0114		0.0020	0.0002	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Cadmium	0.0022		0.0010	0.0003	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Calcium	40500	D08	50.0	10.0	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Copper	0.0070	J	0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Magnesium	4390	D08	4.00	0.868	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Sodium	19100	D08	100	32.4	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Zinc	0.0378		0.0100	0.0015	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
<u>General Chemistry Parameters</u>										
Oil and Grease	3.0	J	5.0	1.4	mg/L	1.00	04/12/10 11:40	JME	10D0971	1664A
Chloride	220000	D08	20000	8200	mg/L	20000	04/20/10 15:04	KLD	10D1994	4500-CLE
pH	5.78	HFT	0.00500	0.00	SU	1.00	04/10/10 00:07	JFR	10D1046	9040
Total Recoverable Phenolics	0.0099	J	0.0100	0.0050	mg/L	1.00	04/14/10 15:38	KLD	10D1239	420.4
Total Dissolved Solids	308000	D08, B	2000	800	mg/L	200	04/13/10 22:00	AMP	10D1196	2640C
Specific Conductance (25 C)	180000		NR	0.0	umhos/cm	1.00	04/12/10 10:43	KLD	10D1002	120.1
Total Organic Carbon	127	D08	40.0	17.4	mg/L	40.0	04/22/10 21:16	KLD	10D2194	9060
Total Organic Halides (Tox)	8330	D15, B	5000	1630	ug/L	1.00	04/22/10 10:37	JMM	10D1897	9020

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
BRINE	RTD1040-01	Water	04/09/10 11:15	04/09/10 15:55	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/08/10
Reported: 04/29/10 10:10

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water)										
Sampled: 04/09/10 11:15 Recvd: 04/09/10 15:58										
Volatile Organic Compounds										
1,1,1-Trichloroethane	ND		5.0	0.73	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1,2,2-Tetrachloroethane	ND		5.0	1.2	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1-Dichloroethane	ND		5.0	0.59	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,1-Dichloroethane	ND		5.0	0.85	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloroethane	ND		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloropropane	ND		5.0	0.61	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
2-Chloroethyl vinyl ether	ND		25	3.7	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Benzene	36		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromodichloromethane	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromoform	ND		5.0	0.47	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Bromomethane	ND		5.0	1.2	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Carbon Tetrachloride	ND		5.0	0.51	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chlorobenzene	ND		5.0	0.48	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chlorodibromomethane	ND		5.0	0.41	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloroethane	ND		5.0	0.87	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloroform	ND		5.0	0.54	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Chloromethane	2.7	J	5.0	0.64	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
cis-1,3-Dichloropropene	ND		5.0	0.57	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Ethylbenzene	ND		5.0	0.46	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Methylene Chloride	ND		5.0	0.61	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Tetrachloroethane	ND		5.0	0.34	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Toluene	5.2		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
trans-1,2-Dichloroethane	ND		5.0	0.59	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
trans-1,3-Dichloropropane	ND		5.0	0.44	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Trichloroethane	ND		5.0	0.60	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Trichlorofluoromethane	ND		5.0	0.45	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
Vinyl chloride	ND		5.0	0.75	ug/L	1.00	04/13/10 07:07	TRB	10D0944	624
1,2-Dichloroethane-d4	109 %		Surr Limits: (88-132%)				04/13/10 07:07	TRB	10D0944	624
4-Bromofluorobenzene	83 %		Surr Limits: (78-122%)				04/13/10 07:07	TRB	10D0944	624
Toluene-d8	83 %		Surr Limits: (87-110%)				04/13/10 07:07	TRB	10D0944	624

Acid and Base/Neutral Extractables by EPA Method 625

1,2,4-Trichlorobenzene	ND		9.8	0.48	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,2-Dichlorobenzene	ND		9.8	0.14	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,2-Diphenylhydrazine	ND		9.8	0.062	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,3-Dichlorobenzene	ND		9.8	0.067	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
1,4-Dichlorobenzene	ND		9.8	0.088	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4,6-Trichlorophenol	ND		4.9	0.23	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dichlorophenol	ND		4.9	0.29	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dimethylphenol	0.15	J	4.9	0.13	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dinitrophenol	ND		9.8	0.82	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,4-Dinitrotoluene	ND		4.9	0.26	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,6-Dinitrotoluene	ND		4.9	0.70	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Chloronaphthalene	ND		4.9	0.066	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Chlorophenol	ND		4.9	0.15	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2-Nitrophenol	ND		4.9	0.14	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

www.testamericainc.com

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	DII Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		
<u>Acid and Base/Neutral Extractables by EPA Method 625 - cont.</u>										
3,3'-Dichlorobenzidine	ND		4.9	0.81	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4,6-Dinitro-2-methylphenol	ND		9.8	0.75	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Bromophenyl phenyl ether	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Chloro-3-methylphenol	ND		4.9	0.55	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Chlorophenyl phenyl ether	ND		4.9	0.20	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
4-Nitrophenol	ND		9.8	1.3	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Acenaphthene	ND		4.9	0.059	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Acenaphthylene	ND		4.9	0.033	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Anthracene	ND		4.9	0.051	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(a)anthracene	ND	L	78	2.5	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(a)pyrene	ND		4.9	0.042	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(b)fluoranthene	ND		4.9	0.057	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(b)fluoranthene	ND		4.9	0.060	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(ghi)perylene	ND		4.9	0.098	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Benzo(k)fluoranthene	ND		4.9	0.041	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-chloroethoxy)methane	ND		4.9	0.083	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-chloroethyl)ether	ND		4.9	1.1	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
2,2'-Oxybis(1-Chloropropane)	ND		4.9	0.084	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Bis(2-ethylhexyl)phthalate	ND		9.8	0.85	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Butyl benzyl phthalate	ND		4.9	1.3	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Chrysene	ND		4.9	0.035	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Dibenzo(a,h)anthracene	ND		4.9	0.054	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Diethyl phthalate	ND	L	4.9	0.17	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Dimethyl phthalate	ND	L	4.9	0.16	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Di-n-butyl phthalate	ND	L	4.9	0.92	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Di-n-octyl phthalate	ND		4.9	4.4	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Fluoranthene	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Fluorene	ND		4.9	0.042	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorobenzene	ND		4.9	0.27	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorobutadiene	ND		4.9	0.60	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachlorocyclopentadiene	ND		4.9	0.44	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Hexachloroethane	ND		4.9	0.47	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Indeno(1,2,3-cd)pyrene	ND		4.9	0.18	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Isophorone	ND		4.9	0.15	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Naphthalene	0.17	J	4.9	0.079	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Nitrobenzene	ND		4.9	0.11	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodimethylamine	ND		9.8	0.94	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodi-n-propylamine	ND		4.9	0.23	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
N-Nitrosodiphenylamine	ND	L	4.9	0.39	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Pentachlorophenol	ND		9.8	0.40	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenanthrene	ND	L	4.9	0.070	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Phenol	13		4.9	0.12	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625
Pyrene	ND	L	4.9	0.040	ug/L	1.00	04/13/10 08:29	MAF	10D0825	625

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National Fuel & Gas - Buffalo, NY
395 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10

Reported: 04/29/10 10:10

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.										
						Sampled: 04/09/10 11:15		Recvd: 04/09/10 15:55		

Acid and Base/Neutral Extractables by EPA Method 825 - cont.

2-Fluorophenol	85 %						04/13/10 08:29	MAF	10D0825	825
Phenol-d5	103 %						04/13/10 08:29	MAF	10D0825	825
Nitrobenzene-d5	97 %						04/13/10 08:29	MAF	10D0825	825
2-Fluorobiphenyl	84 %						04/13/10 08:29	MAF	10D0825	825
2,4,6-Tribromophenol	113 %						04/13/10 08:29	MAF	10D0825	825
p-Terphenyl-d14	56 %						04/13/10 08:29	MAF	10D0825	825

Organochlorine Pesticides and PCBs by EPA Method 808

Aroclor 1016	ND	QSU	0.058	0.037	ug/L	1.00	04/13/10 07:53	JxM	10D0875	808
Aroclor 1221	ND	QSU	0.058	0.039	ug/L	1.00	04/13/10 07:53	JxM	10D0875	808
Aroclor 1232	ND	QSU	0.058	0.048	ug/L	1.00	04/13/10 07:53	JxM	10D0875	808
Aroclor 1242	ND	QSU	0.058	0.043	ug/L	1.00	04/13/10 07:53	JxM	10D0875	808
Aroclor 1248	ND	QSU	0.058	0.035	ug/L	1.00	04/13/10 07:53	JxM	10D0875	808
Aroclor 1264	ND	QSU	0.058	0.014	ug/L	1.00	04/13/10 07:53	JxM	10D0875	808
Aroclor 1260	ND	QSU	0.058	0.010	ug/L	1.00	04/13/10 07:53	JxM	10D0875	808
Aroclor 1262	ND	QSU	0.058	0.048	ug/L	1.00	04/13/10 07:53	JxM	10D0875	808
Aroclor 1268	ND	QSU	0.058	0.023	ug/L	1.00	04/13/10 07:53	JxM	10D0875	808

Decachlorobiphenyl	49 %	QSU	Surr Limits: (26-145%)				04/13/10 07:53	JxM	10D0875	808
Tetrachloro-m-xylene	79 %	QSU	Surr Limits: (25-152%)				04/13/10 07:53	JxM	10D0875	808
4,4'-DDD [2C]	ND		0.049	0.0089	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
4,4'-DDE [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
4,4'-DDT [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Aldrin [2C]	ND		0.049	0.0064	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
alpha-BHC [2C]	ND		0.049	0.0064	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
beta-BHC [2C]	ND		0.049	0.024	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Chlordane [2C]	ND		0.49	0.028	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
delta-BHC [2C]	ND		0.049	0.0098	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Dieldrin [2C]	ND		0.049	0.0085	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Endosulfan I [2C]	ND		0.049	0.011	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Endosulfan II [2C]	ND		0.049	0.012	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Endosulfan sulfate [2C]	ND		0.049	0.016	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Erdrin [2C]	ND		0.049	0.013	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Erdrin aldehyde [2C]	ND		0.049	0.016	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
gamma-BHC (Lindane) [2C]	0.028	J	0.049	0.0058	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Heptachlor [2C]	ND		0.049	0.0083	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Heptachlor epoxide [2C]	ND		0.049	0.0051	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808
Toxaphene [2C]	ND		0.49	0.12	ug/L	1.00	04/15/10 13:23	DGB	10D0869	808

Decachlorobiphenyl [2C]	21 %						04/15/10 13:23	DGB	10D0869	808
Tetrachloro-m-xylene [2C]	61 %						04/15/10 13:23	DGB	10D0869	808

Total Metals by EPA 200 Series Methods

Antimony	ND	D02	0.400	0.136	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Arsenic	0.0145		0.0100	0.0056	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Beryllium	0.0114		0.0020	0.0002	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Cadmium	0.0022		0.0010	0.0003	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Calcium	40890	D08	50.0	10.0	mg/L	100	04/14/10 10:43	DAN	10D1007	200.7
Chromium	ND		0.0040	0.0009	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Copper	0.0070	J	0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7

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National Fuel & Gas - Buffalo, NY
305 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Oil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTD1040-01 (BRINE - Water) - cont.						Sampled: 04/08/10 11:15		Recvd: 04/09/10 15:55		
Total Metals by EPA 200 Series Methods - cont.										
Lead	ND	D02	0.0250	0.0150	mg/L	6.00	04/14/10 10:53	DAN	10D1007	200.7
Magnesium	4390	D08	4.00	0.868	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Nickel	ND		0.0100	0.0013	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Selenium	ND	D02	0.300	0.174	mg/L	20.0	04/14/10 10:48	DAN	10D1007	200.7
Silver	ND		0.0030	0.0012	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Sodium	19100	D08	100	32.4	mg/L	100	04/14/10 10:49	DAN	10D1007	200.7
Thallium	ND	D02	0.100	0.0512	mg/L	5.00	04/14/10 10:53	DAN	10D1007	200.7
Zinc	0.0378		0.0100	0.0016	mg/L	1.00	04/13/10 20:19	DAN	10D1007	200.7
Mercury	ND	S9	0.0012	0.0007	mg/L	1.00	04/13/10 17:12	MXM	10D1099	245.1
General Chemistry Parameters										
Oil and Grease	3.0	J	5.0	1.4	mg/L	1.00	04/12/10 11:40	JME	10D0971	1664A
Chloride	220000	D08	20000	9200	mg/L	20000	04/20/10 16:04	KLD	10D1994	4600-CL E
Cyanide	ND		0.0100	NR	mg/L	1.00	04/17/10 11:06	JME	10D1532	335.4
pH	5.78	HFT	0.00500	0.00	SU	1.00	04/10/10 00:07	JFR	10D1048	9040
Total Recoverable Phenolics	0.0089	J	0.0100	0.0050	mg/L	1.00	04/14/10 16:36	KLD	10D1239	420.4
Total Dissolved Solids	308000	D08, B	2000	800	mg/L	200	04/13/10 22:00	AMP	10D1135	2540C
Specific Conductance (25 C)	180000		NA	0.0	umhos/cm	1.00	04/12/10 10:43	KLD	10D1002	120.1
Total Organic Carbon	127	D08	40.0	17.4	mg/L	40.0	04/22/10 21:15	KLD	10D2194	9060
Total Organic Halides (Tox)	8330	D15, B	5000	1630	ug/L	1.00	04/22/10 10:37	JMM	10D1887	8020

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Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10

Reported: 04/29/10 10:10

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extract	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Acid and Base/Neutral Extractables by EPA Method 625									
625	10D0825	RTD1040-01	1,020.00	mL	1.00	mL	04/10/10 09:27	LTT	3510C MB
General Chemistry Parameters									
120.1	10D1002	RTD1040-01	50.00	mL	50.00	mL	04/12/10 10:43	KLD	No prep Conductance
1664A	10D0871	RTD1040-01	1,010.00	mL	1,000.00	mL	04/12/10 11:40	JME	No prep Oil and Grease
2540C	10D1135	RTD1040-01	100.00	mL	100.00	mL	04/13/10 22:00	MDM	Solids
335.4	10D1532	RTD1040-01	50.00	mL	50.00	mL	04/16/10 14:05	AMP	On Digestion
420.4	10D1239	RTD1040-01	50.00	mL	50.00	mL	04/14/10 12:38	JME	TRP Distillation
4500-CL E	10D1994	RTD1040-01	2.00	mL	2.00	mL	04/20/10 13:04	KLD	No Prep Chloride
9020	10D1897	RTD1040-01	0.40	mL	100.00	mL	04/20/10 12:53	JMM	No prep TOX
9040	10D1046	RTD1040-01	1.00	mL	1.00	mL	04/10/10 00:07	JFR	pH
9060	10D2194	RTD1040-01	40.00	mL	40.00	mL	04/22/10 16:33	KLD	No prep Carbon
Organochlorine Pesticides and PCBs by EPA Method 608									
608	10D0875	RTD1040-01	1,030.00	mL	2.00	mL	04/12/10 05:00	BML	3510C GC
608	10D0859	RTD1040-01	1,030.00	mL	10.00	mL	04/11/10 09:00	KMB	3510C GC
Total Metals by EPA 200 Series Methods									
200.7	10D1007	RTD1040-01	50.00	mL	50.00	mL	04/13/10 07:45	KCW	3005A
245.1	10D1099	RTD1040-01	5.00	mL	50.00	mL	04/13/10 13:30	MXM	7470A
Volatile Organic Compounds									
624	10D0944	RTD1040-01	5.00	mL	5.00	mL	04/12/10 10:54	TRB	5030B MS

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Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis

Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds											
Blank Analyzed: 04/12/10 (Lab Number:10D0944-BLK1, Batch: 10D0944)											
1,1,1-Trichloroethane			5.0	0.38	ug/L	ND					
1,1,2,2-Tetrachloroethane			5.0	0.28	ug/L	ND					
1,1,2-Trichloroethane			5.0	0.48	ug/L	ND					
1,1-Dichloroethane			5.0	0.59	ug/L	ND					
1,1-Dichloroethene			5.0	0.85	ug/L	ND					
1,2-Dichlorobenzene			5.0	0.44	ug/L	ND					
1,2-Dichloroethane			5.0	0.60	ug/L	ND					
1,2-Dichloropropane			5.0	0.61	ug/L	ND					
1,3-Dichlorobenzene			5.0	0.54	ug/L	ND					
1,4-Dichlorobenzene			5.0	0.51	ug/L	ND					
2-Chloroethyl vinyl ether			25	1.8	ug/L	ND					
Benzene			5.0	0.60	ug/L	ND					
Bromodichloromethane			5.0	0.54	ug/L	ND					
Bromoform			5.0	0.47	ug/L	ND					
Bromomethane			5.0	1.2	ug/L	ND					
Carbon Tetrachloride			5.0	0.51	ug/L	ND					
Chlorobenzene			5.0	0.48	ug/L	ND					
Chlorodibromomethane			5.0	0.41	ug/L	ND					
Chloroethane			5.0	0.87	ug/L	ND					
Chloroform			5.0	0.54	ug/L	ND					
Chloromethane			5.0	0.64	ug/L	ND					
cis-1,3-Dichloropropene			5.0	0.33	ug/L	ND					
Ethylbenzene			5.0	0.46	ug/L	ND					
Methylene Chloride			5.0	0.81	ug/L	ND					
Tetrachloroethene			5.0	0.34	ug/L	ND					
Toluene			5.0	0.45	ug/L	ND					
trans-1,2-Dichloroethene			5.0	0.59	ug/L	ND					
trans-1,3-Dichloropropene			5.0	0.44	ug/L	ND					
Trichloroethene			5.0	0.60	ug/L	ND					
Trichlorofluoromethane			5.0	0.45	ug/L	ND					
Vinyl chloride			5.0	0.75	ug/L	ND					

Surrogate:	ug/L	96	88-132
1,2-Dichloroethane-d4	ug/L	86	78-122
Surrogate:	ug/L		
4-Bromofluorobenzene	ug/L	99	87-110
Surrogate: Toluene-d8	ug/L		

LCS Analyzed: 04/12/10 (Lab Number:10D0944-BS1, Batch: 10D0944)

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Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Volatile Organic Compounds										
LCS Analyzed: 04/12/10 (Lab Number:10D0944-B51, Batch: 10D0944)										
1,1,1-Trichloroethane		20.0	5.0	0.38	ug/L	18.6	93	75-125		
1,1,2,2-Tetrachloroethane		20.0	5.0	0.26	ug/L	17.0	85	61-140		
1,1,2-Trichloroethane		20.0	5.0	0.48	ug/L	18.6	93	71-129		
1,1-Dichloroethane		20.0	5.0	0.59	ug/L	19.0	95	73-128		
1,1-Dichloroethane		20.0	5.0	0.85	ug/L	18.7	94	61-150		
1,2-Dichlorobenzene		20.0	5.0	0.44	ug/L	20.7	109	63-137		
1,2-Dichloroethane		20.0	5.0	0.60	ug/L	19.3	97	68-132		
1,2-Dichloropropane		20.0	5.0	0.61	ug/L	19.6	98	34-166		
1,3-Dichlorobenzene		20.0	5.0	0.54	ug/L	21.0	106	73-127		
1,4-Dichlorobenzene		20.0	5.0	0.51	ug/L	20.0	100	63-137		
2-Chloroethyl vinyl ether		100	25	1.8	ug/L	103	103	1-224		
Benzene		20.0	5.0	0.60	ug/L	19.5	97	64-136		
Bromodichloromethane		20.0	5.0	0.54	ug/L	19.4	97	66-135		
Bromoform		20.0	5.0	0.47	ug/L	16.8	85	71-129		
Bromomethane		20.0	5.0	1.2	ug/L	18.8	94	14-186		
Carbon Tetrachloride		20.0	5.0	0.61	ug/L	18.2	91	73-127		
Chlorobenzene		20.0	5.0	0.48	ug/L	19.3	98	66-134		
Chlorodibromomethane		20.0	5.0	0.41	ug/L	18.2	91	68-133		
Chloroethane		20.0	5.0	0.67	ug/L	17.0	85	38-162		
Chloroform		20.0	5.0	0.54	ug/L	18.9	94	66-133		
Chloromethane		20.0	5.0	0.64	ug/L	20.0	100	1-204		
cis-1,3-Dichloropropene		20.0	5.0	0.33	ug/L	19.0	95	24-176		
Ethylbenzene		20.0	5.0	0.46	ug/L	19.1	98	59-141		
Methylene Chloride		20.0	5.0	0.61	ug/L	20.1	101	61-140		
Tetrachloroethene		20.0	5.0	0.34	ug/L	18.4	92	74-127		
Toluene		20.0	5.0	0.45	ug/L	18.9	95	75-126		
trans-1,2-Dichloroethene		20.0	5.0	0.59	ug/L	19.2	98	70-131		
trans-1,3-Dichloropropene		20.0	5.0	0.44	ug/L	18.0	90	60-150		
Trichloroethene		20.0	5.0	0.60	ug/L	18.1	90	67-134		
Trichlorofluoromethane		20.0	5.0	0.45	ug/L	18.9	94	48-162		
Vinyl chloride		20.0	5.0	0.75	ug/L	19.5	97	4-196		
Surrogate: 1,2-Dichloroethane-d4					ug/L		95	88-132		
Surrogate: 4-Bromofluorobenzene					ug/L		99	76-122		
Surrogate: Toluene-d8					ug/L		98	87-110		

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Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/08/10

Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 825											
Blank Analyzed: 04/13/10 (Lab Number:10D0825-BLK1, Batch: 10D0825)											
1,2,4-Trichlorobenzene			10	0.49	ug/L	ND					
1,2-Dichlorobenzene			10	0.14	ug/L	ND					
1,2-Diphenylhydrazine			10	0.083	ug/L	ND					
1,3-Dichlorobenzene			10	0.069	ug/L	ND					
1,4-Dichlorobenzene			10	0.080	ug/L	ND					
2,4,6-Trichlorophenol			5.0	0.23	ug/L	ND					
2,4-Dichlorophenol			5.0	0.30	ug/L	ND					
2,4-Dimethylphenol			5.0	0.13	ug/L	ND					
2,4-Dinitrophenol			10	0.84	ug/L	ND					
2,4-Dinitrotoluene			5.0	0.26	ug/L	ND					
2,6-Dinitrotoluene			5.0	0.72	ug/L	ND					
2-Chloronaphthalene			5.0	0.068	ug/L	ND					
2-Chlorophenol			5.0	0.18	ug/L	ND					
2-Nitrophenol			5.0	0.14	ug/L	ND					
3,3'-Dichlorobenzidine			5.0	0.82	ug/L	ND					
4,6-Dinitro-2-methylphenol			10	0.76	ug/L	ND					
4-Bromophenyl phenyl ether			5.0	0.11	ug/L	ND					
4-Chloro-3-methylphenol			5.0	0.56	ug/L	ND					
4-Chlorophenyl phenyl ether			5.0	0.21	ug/L	ND					
4-Nitrophenol			10	1.3	ug/L	ND					
Acenaphthene			5.0	0.060	ug/L	ND					
Acenaphthylene			5.0	0.034	ug/L	ND					
Anthracene			5.0	0.062	ug/L	ND					
Benzidine			80	2.5	ug/L	ND					
Benzo(a)anthracene			5.0	0.043	ug/L	ND					
Benzo(a)pyrene			5.0	0.058	ug/L	ND					
Benzo(b)fluoranthene			5.0	0.062	ug/L	ND					
Benzo(ghi)perylene			5.0	0.10	ug/L	0.24					J
Benzo(k)fluoranthene			5.0	0.042	ug/L	ND					
Bis(2-chloroethoxy)methane			5.0	0.085	ug/L	ND					
Bis(2-chloroethyl)ether			5.0	1.1	ug/L	ND					
2,2'-Oxybis(1-Chloropropane)			5.0	0.086	ug/L	ND					
Bis(2-ethylhexyl)phthalate			10	0.88	ug/L	ND					
Butyl benzyl phthalate			5.0	1.3	ug/L	ND					

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 825											
Blank Analyzed: 04/13/10 (Lab Number:10D0825-BLK1, Batch: 10D0825)											
Chrysene			5.0	0.038	ug/L	ND					
Dibenzo(a,h)anthracene			5.0	0.055	ug/L	0.33					J
Diethyl phthalate			5.0	0.17	ug/L	ND					
Dimethyl phthalate			5.0	0.17	ug/L	ND					
Di-n-butyl phthalate			5.0	0.94	ug/L	ND					
Di-n-octyl phthalate			5.0	4.5	ug/L	ND					
Fluoranthene			5.0	0.11	ug/L	ND					
Fluorene			5.0	0.043	ug/L	ND					
Hexachlorobenzene			5.0	0.28	ug/L	ND					
Hexachlorobutadiene			5.0	0.82	ug/L	ND					
Hexachlorocyclopentadiene			5.0	0.45	ug/L	ND					
Hexachloroethane			5.0	0.48	ug/L	ND					
Indeno(1,2,3-cd)pyrene			5.0	0.19	ug/L	ND					
Isophorone			5.0	0.16	ug/L	ND					
Naphthalene			5.0	0.080	ug/L	ND					
Nitrobenzene			5.0	0.11	ug/L	ND					
N-Nitrosodimethylamine			10	0.98	ug/L	ND					
N-Nitrosodi-n-propylamine			5.0	0.23	ug/L	ND					
N-Nitrosodiphenylamine			5.0	0.40	ug/L	ND					
Pentachlorophenol			10	0.41	ug/L	ND					
Phenanthrene			5.0	0.071	ug/L	ND					
Phenol			5.0	0.12	ug/L	ND					
Pyrene			5.0	0.041	ug/L	ND					

Surrogate: 2-Fluorophenol					ug/L		53	17-120			
Surrogate: Phenol-d5					ug/L		40	10-120			
Surrogate: Nitrobenzene-d5					ug/L		96	42-120			
Surrogate: 2-Fluorobiphenyl					ug/L		96	44-120			
Surrogate: 2,4,6-Tribromophenol					ug/L		108	48-122			
Surrogate: p-Terphenyl-d14					ug/L		108	22-125			

LCS Analyzed: 04/13/10 (Lab Number:10D0825-BS1, Batch: 10D0825)

1,2,4-Trichlorobenzene	50.0	10	0.49	ug/L	39.3	79	44-142				
1,2-Dichlorobenzene	50.0	10	0.14	ug/L	38.7	77	32-129				
1,2-Diphenylhydrazine		10	0.063	ug/L	60.9		47-146				
1,3-Dichlorobenzene	50.0	10	0.069	ug/L	37.2	74	1-172				

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National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 5
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/09/10

Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625										
LCS Analyzed: 04/13/10 (Lab Number: 10D0825-BB1, Batch: 10D0825)										
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	37.8	78	20-124		
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	61.3	123	37-144		
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	54.7	109	39-135		
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	48.3	97	32-118		
2,4-Dinitrophenol		50.0	10	0.64	ug/L	39.4	79	1-191		
2,4-Dinitrotoluene		50.0	5.0	0.25	ug/L	63.9	128	38-139		
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	66.0	132	50-168		
2-Chloronaphthalene		50.0	5.0	0.068	ug/L	51.2	102	60-118		
2-Chlorophenol		50.0	5.0	0.16	ug/L	48.2	92	23-134		
2-Nitrophenol		50.0	5.0	0.14	ug/L	53.6	107	28-182		
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	85.3	171	1-262		E
4,6-Dinitro-2-methylphenol		50.0	10	0.76	ug/L	66.9	134	1-181		
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	59.0	118	53-127		
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	59.8	120	22-147		
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	55.9	112	25-158		
4-Nitrophenol		50.0	10	1.3	ug/L	28.9	58	1-132		
Acenaphthene		50.0	5.0	0.060	ug/L	55.0	110	47-145		
Acenaphthylene		50.0	5.0	0.034	ug/L	56.9	114	33-145		
Anthracene		50.0	6.0	0.052	ug/L	82.5	125	27-133		
Benzidine		50.0	80	2.5	ug/L	116	237	1-120		L1,E
Benzo(a)anthracene		50.0	6.0	0.043	ug/L	80.3	121	33-143		
Benzo(a)pyrene		50.0	6.0	0.058	ug/L	61.0	122	17-183		
Benzo(b)fluoranthene		50.0	5.0	0.062	ug/L	55.1	110	24-158		
Benzo(ghi)perylene		50.0	6.0	0.10	ug/L	66.4	133	1-219		B
Benzo(k)fluoranthene		50.0	5.0	0.042	ug/L	52.1	104	11-162		
Bis(2-chloroethoxy)methane		50.0	5.0	0.085	ug/L	48.0	92	33-184		
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	42.0	84	12-158		
2,2'-Oxybis(1-Chloropropane)		50.0	5.0	0.086	ug/L	43.6	87	36-185		
Bis(2-ethylhexyl)phthalate		50.0	10	0.88	ug/L	63.5	127	8-158		
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	67.3	135	1-152		
Chrysene		50.0	5.0	0.036	ug/L	62.3	125	17-168		
Dibenz(a,h)anthracene		50.0	5.0	0.055	ug/L	82.7	125	1-227		B
Diethyl phthalate		50.0	5.0	0.17	ug/L	62.5	125	1-114		L1
Dimethyl phthalate		50.0	5.0	0.17	ug/L	57.2	114	1-112		L1

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625										
LCS Analyzed: 04/13/10 (Lab Number:10D0825-BB1, Batch: 10D0825)										
Di-n-butyl phthalate		50.0	5.0	0.94	ug/L	66.9	134	1-118		L1
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	60.8	122	4-146		
Fluoranthene		50.0	5.0	0.11	ug/L	62.4	125	26-137		
Fluorene		50.0	5.0	0.043	ug/L	58.7	117	59-121		
Hexachlorobenzene		50.0	5.0	0.28	ug/L	55.8	112	1-152		
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	37.6	75	24-116		
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	32.1	64	5-120		
Hexachloroethane		50.0	5.0	0.48	ug/L	39.2	78	40-113		
Indeno(1,2,3-cd)pyrene		50.0	5.0	0.19	ug/L	64.5	129	1-171		
Isophorone		50.0	5.0	0.16	ug/L	48.4	97	21-198		
Naphthalene		50.0	5.0	0.060	ug/L	45.9	92	21-133		
Nitrobenzene		50.0	5.0	0.11	ug/L	46.5	93	35-180		
N-Nitrosodimethylamine		50.0	10	0.98	ug/L	27.3	55	19-120		
N-Nitrosodi-n-propylamine		50.0	5.0	0.23	ug/L	51.2	102	1-230		
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	72.8	146	54-125		L1
Pentachlorophenol		50.0	10	0.41	ug/L	64.1	128	14-176		
Phenanthrene		50.0	5.0	0.071	ug/L	62.3	125	54-120		L1
Phenol		50.0	5.0	0.12	ug/L	22.0	44	6-112		
Pyrene		50.0	5.0	0.041	ug/L	64.0	128	52-115		L1
Surrogate: 2-Fluorophenol					ug/L		54	17-120		
Surrogate: Phenol-d5					ug/L		40	10-120		
Surrogate: Nitrobenzene-d5					ug/L		95	42-120		
Surrogate: 2-Fluorobiphenyl					ug/L		98	44-120		
Surrogate: 2,4,6-Tribromophenol					ug/L		116	49-122		
Surrogate: p-Terphenyl-d14					ug/L		109	22-125		
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)										
1,2,4-Trichlorobenzene		50.0	10	0.49	ug/L	37.8	76	44-142	4	34
1,2-Dichlorobenzene		50.0	10	0.14	ug/L	37.8	76	32-129	3	38
1,2-Diphenylhydrazine			10	0.063	ug/L	58.9		47-148	3	20
1,3-Dichlorobenzene		50.0	10	0.069	ug/L	35.9	72	1-172	4	37
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	36.7	73	20-124	3	40
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	58.9	118	37-144	4	20
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	53.5	107	39-135	2	23
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	49.6	99	32-119	2	18

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National Fuel & Gas - Buffalo, NY
385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10

Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers	
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)											
2,4-Dinitrophenol		50.0	10	0.84	ug/L	39.2	78	1-191	0.5	29	
2,4-Dinitrotoluene		50.0	5.0	0.28	ug/L	62.6	125	39-139	2	20	
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	62.8	126	50-158	5	17	
2-Chloronaphthalene		50.0	5.0	0.088	ug/L	48.9	98	60-116	6	30	
2-Chlorophenol		50.0	5.0	0.16	ug/L	44.7	89	23-134	3	28	
2-Nitrophenol		50.0	5.0	0.14	ug/L	51.2	102	29-182	6	28	
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	85.0	170	1-262	0.4	31	E
4,6-Dinitro-2-methylphenol		50.0	10	0.79	ug/L	66.6	133	1-181	0.5	30	
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	56.4	113	53-127	5	16	
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	60.0	120	22-147	0.4	18	
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	53.5	107	25-158	4	15	
4-Nitrophenol		60.0	10	1.3	ug/L	28.5	57	1-132	1	24	
Acenaphthene		60.0	5.0	0.060	ug/L	52.8	106	47-145	4	25	
Acenaphthylene		50.0	5.0	0.034	ug/L	54.6	109	33-145	4	22	
Anthracene		50.0	5.0	0.052	ug/L	60.4	121	27-133	3	15	
Benzidine		50.0	80	2.5	ug/L	127	254	1-120	7	60	L1,E
Benzo(a)anthracene		60.0	5.0	0.043	ug/L	58.4	117	33-143	3	15	
Benzo(a)pyrene		50.0	5.0	0.058	ug/L	58.7	117	17-163	4	16	
Benzo(b)fluoranthene		50.0	5.0	0.062	ug/L	52.6	105	24-159	5	17	
Benzo(ghi)perylene		50.0	5.0	0.10	ug/L	64.8	130	1-219	2	19	B
Benzo(k)fluoranthene		50.0	5.0	0.042	ug/L	51.4	103	11-162	1	19	
Bis(2-chloroethoxy)methane		50.0	5.0	0.085	ug/L	43.9	88	33-184	5	23	
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	40.6	81	12-158	3	33	
2,2'-Oxybis(1-Chloropropane)		50.0	5.0	0.086	ug/L	41.6	83	36-166	5	36	
Bis(2-ethoxyethyl)phthalate		50.0	10	0.86	ug/L	62.2	124	6-158	2	15	
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	65.2	130	1-152	3	15	
Chrysene		50.0	5.0	0.036	ug/L	60.3	121	17-168	3	15	
Dibenzo(a,h)anthracene		50.0	5.0	0.055	ug/L	61.6	123	1-227	2	18	B
Diethyl phthalate		50.0	5.0	0.17	ug/L	60.5	121	1-114	3	15	L1
Dimethyl phthalate		50.0	5.0	0.17	ug/L	55.0	110	1-112	4	15	
Di-n-butyl phthalate		50.0	5.0	0.84	ug/L	65.4	131	1-118	2	15	L1
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	59.3	119	4-148	3	15	
Fluoranthene		50.0	5.0	0.11	ug/L	60.8	122	26-137	3	15	
Fluorene		50.0	5.0	0.043	ug/L	58.1	112	59-121	5	18	

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385 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Dup Analyzed: 04/13/10 (Lab Number:10D0825-BSD1, Batch: 10D0825)											
Hexachlorobenzene		50.0	5.0	0.28	ug/L	53.9	106	1-152	3	15	
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	36.9	74	24-116	2	50	
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	31.8	64	5-120	1	50	
Hexachloroethane		50.0	5.0	0.48	ug/L	37.9	76	40-113	3	43	
Indeno(1,2,3-cd)pyrene		50.0	5.0	0.19	ug/L	63.2	126	1-171	2	17	
Isophorone		50.0	5.0	0.16	ug/L	46.1	92	21-196	5	21	
Naphthalene		50.0	5.0	0.080	ug/L	44.3	89	21-133	4	31	
Nitrobenzene		50.0	5.0	0.11	ug/L	44.8	90	35-180	4	27	
N-Nitrosodimethylamine		50.0	10	0.96	ug/L	25.3	51	19-120	8	22	
N-Nitrosodi-n-propylamine		50.0	5.0	0.23	ug/L	49.3	99	1-230	4	23	
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	70.9	142	54-125	3	15	L1
Pentachlorophenol		50.0	10	0.41	ug/L	62.4	125	14-178	3	21	
Phenanthrene		50.0	5.0	0.071	ug/L	60.3	121	54-120	3	16	L1
Phenol		50.0	5.0	0.12	ug/L	21.6	43	5-112	2	36	
Pyrene		50.0	5.0	0.041	ug/L	62.3	125	62-115	3	15	L1
Surrogate:					ug/L		51	17-120			
2-Fluorophenol					ug/L		39	10-120			
Surrogate: Phenol-d5					ug/L		89	42-120			
Surrogate:					ug/L		92	44-120			
Nitrobenzene-d5					ug/L		112	49-122			
Surrogate:					ug/L		108	22-125			
2-Fluorobiphenyl					ug/L						
Surrogate:					ug/L						
2,4,6-Tribromophenol					ug/L						
Surrogate:					ug/L						
p-Terphenyl-d14					ug/L						

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/28/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Organochlorine Pesticides and PCBs by EPA Method 808											
Blank Analyzed: 04/14/10 (Lab Number:10D0869-BLK1, Batch: 10D0869)											
4,4'-DDD			0.050	0.0092	ug/L	ND					
4,4'-DDE			0.050	0.012	ug/L	ND					
4,4'-DDT			0.050	0.011	ug/L	ND					
Aldrin			0.050	0.0088	ug/L	ND					
alpha-BHC			0.050	0.0086	ug/L	ND					
beta-BHC			0.050	0.025	ug/L	ND					
Chlordane			0.50	0.029	ug/L	ND					
delta-BHC			0.050	0.010	ug/L	ND					
Dieldrin			0.050	0.0098	ug/L	ND					
Endosulfan I			0.050	0.011	ug/L	ND					
Endosulfan II			0.050	0.012	ug/L	ND					
Endosulfan sulfate			0.050	0.018	ug/L	ND					
Endrin			0.050	0.014	ug/L	ND					
Endrin aldehyde			0.050	0.018	ug/L	ND					
gamma-BHC (Lindane)			0.050	0.0060	ug/L	ND					
Heptachlor			0.050	0.0085	ug/L	ND					
Heptachlor epoxide			0.050	0.0053	ug/L	ND					
Toxaphene			0.50	0.12	ug/L	ND					

Surrogate:					ug/L		90	15-139			
Decachlorobiphenyl					ug/L		70	30-139			
Surrogate:											
Tetrachloro-m-xylene											

LCS Analyzed: 04/14/10 (Lab Number:10D0869-BS1, Batch: 10D0869)

4,4'-DDD	0.500	0.050	0.0092	ug/L	0.400	80	25-139				
4,4'-DDE	0.500	0.050	0.012	ug/L	0.364	73	49-127				
4,4'-DDT	0.500	0.050	0.011	ug/L	0.383	77	47-130				
Aldrin	0.500	0.050	0.0088	ug/L	0.329	68	35-120				
alpha-BHC	0.500	0.050	0.0086	ug/L	0.354	71	39-121				
beta-BHC	0.500	0.050	0.025	ug/L	0.409	82	39-138				
Chlordane		0.50	0.029	ug/L	ND						
delta-BHC	0.500	0.050	0.010	ug/L	0.385	77	40-121				
Dieldrin	0.500	0.050	0.0098	ug/L	0.374	75	41-131				
Endosulfan I	0.500	0.050	0.011	ug/L	0.315	63	41-126				
Endosulfan II	0.500	0.050	0.012	ug/L	0.340	68	32-134				
Endosulfan sulfate	0.500	0.050	0.018	ug/L	0.511	102	46-131				
Endrin	0.500	0.050	0.014	ug/L	0.384	77	43-134				
Endrin aldehyde	0.500	0.050	0.018	ug/L	0.401	80	39-128				
gamma-BHC (Lindane)	0.500	0.050	0.0060	ug/L	0.365	73	68-120				

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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Organochlorine Pesticides and PCBs by EPA Method 608

LCS Analyzed: 04/14/10 (Lab Number:10D0869-BS1, Batch: 10D0869)

Heptachlor		0.500	0.050	0.0085	ug/L	0.347	69	52-120		
Heptachlor epoxide		0.500	0.050	0.0053	ug/L	0.369	74	65-120		
Toxaphene			0.50	0.12	ug/L	ND				

Surrogate: Decachlorobiphenyl					ug/L		70	15-139		
Surrogate: Tetrachloro-m-xylene					ug/L		68	30-139		

Organochlorine Pesticides and PCBs by EPA Method 608

Blank Analyzed: 04/13/10 (Lab Number:10D0875-BLK1, Batch: 10D0875)

Aroclor 1016			0.060	0.036	ug/L	ND				QSU
Aroclor 1221			0.060	0.040	ug/L	ND				QSU
Aroclor 1232			0.060	0.049	ug/L	ND				QSU
Aroclor 1242			0.060	0.044	ug/L	ND				QSU
Aroclor 1248			0.060	0.036	ug/L	ND				QSU
Aroclor 1254			0.060	0.015	ug/L	ND				QSU
Aroclor 1260			0.060	0.010	ug/L	ND				QSU
Aroclor 1262			0.060	0.050	ug/L	ND				QSU
Aroclor 1268			0.060	0.024	ug/L	ND				QSU

Surrogate: Decachlorobiphenyl					ug/L		78	28-145		QSU
Surrogate: Tetrachloro-m-xylene					ug/L		89	25-152		QSU

LCS Analyzed: 04/13/10 (Lab Number:10D0875-BS1, Batch: 10D0875)

Aroclor 1016		1.00	0.060	0.036	ug/L	1.00	100	58-141		QSU
Aroclor 1221			0.060	0.040	ug/L	ND				QSU
Aroclor 1232			0.060	0.049	ug/L	ND				QSU
Aroclor 1242			0.060	0.044	ug/L	ND				QSU
Aroclor 1248			0.060	0.036	ug/L	ND				QSU
Aroclor 1254			0.060	0.015	ug/L	ND				QSU
Aroclor 1260		1.00	0.060	0.010	ug/L	1.12	112	58-144		QSU
Aroclor 1262			0.060	0.050	ug/L	ND				QSU
Aroclor 1268			0.060	0.024	ug/L	ND				QSU

Surrogate: Decachlorobiphenyl					ug/L		89	28-145		QSU
Surrogate: Tetrachloro-m-xylene					ug/L		97	25-152		QSU

Matrix Spike Analyzed: 04/13/10 (Lab Number:10D0875-MS1, Batch: 10D0875)

QC Source Sample: RTD1040-01

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10
Reported: 04/28/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Organochlorine Pesticides and PCBs by EPA Method 608

Matrix Spike Analyzed: 04/13/10 (Lab Number:10D0875-MS1, Batch: 10D0875)

QC Source Sample: RTD1040-01

Aroclor 1016	ND	1.92	0.12	0.074	ug/L	1.82	95	58-141			QSU
Aroclor 1221	ND		0.12	0.077	ug/L	ND					QSU
Aroclor 1232	ND		0.12	0.095	ug/L	ND					QSU
Aroclor 1242	ND		0.12	0.066	ug/L	ND					QSU
Aroclor 1248	ND		0.12	0.069	ug/L	ND					QSU
Aroclor 1254	ND		0.12	0.028	ug/L	ND					QSU
Aroclor 1260	ND	1.92	0.12	0.020	ug/L	1.69	88	58-144			QSU
Aroclor 1262	ND		0.12	0.096	ug/L	ND					QSU
Aroclor 1268	ND		0.12	0.048	ug/L	ND					QSU

Surrogate: Decachlorobiphenyl					ug/L		76	26-146			QSU
Surrogate: Tetrachloro-m-xylene					ug/L		98	25-152			QSU

Matrix Spike Dup Analyzed: 04/13/10 (Lab Number:10D0875-MSD1, Batch: 10D0875)

QC Source Sample: RTD1040-01

Aroclor 1016	ND	1.92	0.12	0.074	ug/L	1.73	90	58-141	5	30	QSU
Aroclor 1221	ND		0.12	0.077	ug/L	ND					QSU
Aroclor 1232	ND		0.12	0.095	ug/L	ND					QSU
Aroclor 1242	ND		0.12	0.085	ug/L	ND					QSU
Aroclor 1248	ND		0.12	0.069	ug/L	ND					QSU
Aroclor 1254	ND		0.12	0.028	ug/L	ND					QSU
Aroclor 1260	ND	1.92	0.12	0.020	ug/L	1.37	71	58-144	21	30	QSU
Aroclor 1262	ND		0.12	0.096	ug/L	ND					QSU
Aroclor 1268	ND		0.12	0.048	ug/L	ND					QSU

Surrogate: Decachlorobiphenyl					ug/L		61	26-146			QSU
Surrogate: Tetrachloro-m-xylene					ug/L		95	25-152			QSU

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Received: 04/08/10
Reported: 04/29/10 10:10

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
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Total Metals by EPA 200 Series Methods

Blank Analyzed: 04/13/10 (Lab Number:10D1007-BLK1, Batch: 10D1007)

Antimony			0.0200	0.0068	mg/L	ND				
Arsenic			0.0100	0.0056	mg/L	ND				
Beryllium			0.0020	0.0002	mg/L	ND				
Cadmium			0.0010	0.0003	mg/L	ND				
Calcium			0.5	0.1	mg/L	ND				
Chromium			0.0040	0.0009	mg/L	ND				
Copper			0.0100	0.0013	mg/L	ND				
Lead			0.0050	0.0030	mg/L	ND				
Magnesium			0.200	0.043	mg/L	ND				
Nickel			0.0100	0.0013	mg/L	ND				
Selenium			0.0150	0.0057	mg/L	ND				
Silver			0.0030	0.0012	mg/L	ND				
Sodium			1.0	0.3	mg/L	ND				
Thallium			0.0200	0.0102	mg/L	ND				
Zinc			0.0100	0.0015	mg/L	ND				

LCS Analyzed: 04/13/10 (Lab Number:10D1007-BS1, Batch: 10D1007)

Antimony	0.200	0.0200	0.0068	mg/L	0.188	99	85-115
Arsenic	0.200	0.0100	0.0056	mg/L	0.203	102	85-115
Beryllium	0.200	0.0020	0.0002	mg/L	0.200	100	85-115
Cadmium	0.200	0.0050	0.0003	mg/L	0.192	96	85-115
Calcium	10.0	0.5	0.1	mg/L	9.99	100	85-115
Chromium	0.200	0.0100	0.0009	mg/L	0.199	99	85-115
Copper	0.200	0.0250	0.0013	mg/L	0.192	96	85-115
Lead	0.200	0.0050	0.0030	mg/L	0.198	99	85-115
Magnesium	10.0	0.200	0.043	mg/L	10.0	100	85-115
Nickel	0.200	0.0400	0.0013	mg/L	0.196	98	85-115
Selenium	0.200	0.0150	0.0057	mg/L	0.202	101	85-115
Silver	0.0500	0.0250	0.0012	mg/L	0.0504	101	85-115
Sodium	10.0	1.0	0.3	mg/L	9.75	97	85-115
Thallium	0.200	0.0200	0.0102	mg/L	0.199	100	85-115
Zinc	0.200	0.0200	0.0015	mg/L	0.197	98	85-115

Total Metals by EPA 200 Series Methods

Blank Analyzed: 04/13/10 (Lab Number:10D1099-BLK1, Batch: 10D1099)

Mercury			0.0002	0.0001	mg/L	ND				
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LCS Analyzed: 04/13/10 (Lab Number:10D1099-BS1, Batch: 10D1099)

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFGReceived: 04/09/10
Reported: 04/29/10 10:10**LABORATORY QC DATA**

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
Total Metals by EPA 200 Series Methods										
LCS Analyzed: 04/13/10 (Lab Number:10D1099-BB1, Batch: 10D1099)										
Mercury		0.00687	0.0002	0.0001	mg/L	0.00653	98	85-115		

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFGReceived: 04/09/10
Reported: 04/29/10 10:10**LABORATORY QC DATA**

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
General Chemistry Parameters										
Blank Analyzed: 04/12/10 (Lab Number:10D0971-BLK1, Batch: 10D0971)										
Oil and Grease			5.0	1.4	mg/L	ND				
LCS Analyzed: 04/12/10 (Lab Number:10D0971-BS1, Batch: 10D0971)										
Oil and Grease		25.0	5.0	1.4	mg/L	23.6	94	78-114		
General Chemistry Parameters										
LCS Analyzed: 04/12/10 (Lab Number:10D1002-BS1, Batch: 10D1002)										
Specific Conductance (25 C)		1000	NA	0.0	umhos/cm	1000	100	90-110		
Duplicate Analyzed: 04/12/10 (Lab Number:10D1002-DUP1, Batch: 10D1002) QC Source Sample: RTD1040-01										
Specific Conductance (25 C)	160000		NA	0.0	umhos/cm	158000			1	20
General Chemistry Parameters										
LCS Analyzed: 04/10/10 (Lab Number:10D1046-BS1, Batch: 10D1046)										
pH		7.00	NA	0.00	SU	7.02	100	99.3-100.6		
General Chemistry Parameters										
Blank Analyzed: 04/13/10 (Lab Number:10D1135-BLK1, Batch: 10D1135)										
Total Dissolved Solids			10.0	4.0	mg/L	5.0				J
LCS Analyzed: 04/13/10 (Lab Number:10D1135-BS1, Batch: 10D1135)										
Total Dissolved Solids		500	10.0	4.0	mg/L	513	103	85-115		B
General Chemistry Parameters										
Blank Analyzed: 04/14/10 (Lab Number:10D1239-BLK1, Batch: 10D1239)										
Total Recoverable Phenolics			0.0100	0.0050	mg/L	ND				
LCS Analyzed: 04/14/10 (Lab Number:10D1239-BS1, Batch: 10D1239)										
Total Recoverable Phenolics		0.653	0.0500	0.0250	mg/L	0.514	79	75-125		D08
General Chemistry Parameters										
Blank Analyzed: 04/17/10 (Lab Number:10D1532-BLK1, Batch: 10D1532)										
Cyanide			0.0100	NR	mg/L	ND				
LCS Analyzed: 04/17/10 (Lab Number:10D1532-BS1, Batch: 10D1532)										
TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991 www.testamericainc.com										

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THE LEADER IN ENVIRONMENTAL TESTING

National Fuel & Gas - Buffalo, NY
365 Mineral Springs Rd Bldg 8
Buffalo, NY 14221

Work Order: RTD1040

Project: Brine - Priority Pollutant Analysis
Project Number: NFG

Received: 04/09/10

Reported: 04/29/10 10:10

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	Data Qualifiers
<u>General Chemistry Parameters</u>										
LCS Analyzed: 04/17/10 (Lab Number:10D1532-BS1, Batch: 10D1532)										
Cyanide		0.400	0.0100	NR	mg/L	0.431	108	90-110		
<u>General Chemistry Parameters</u>										
Blank Analyzed: 04/22/10 (Lab Number:10D1897-BLK1, Batch: 10D1897)										
Total Organic Halides (Tox)			20.0	6.5	ug/L	6.4				J
LCS Analyzed: 04/22/10 (Lab Number:10D1897-BS1, Batch: 10D1897)										
Total Organic Halides (Tox)		100	20.0	6.5	ug/L	115	115	75-125		B
<u>General Chemistry Parameters</u>										
Blank Analyzed: 04/20/10 (Lab Number:10D1994-BLK1, Batch: 10D1994)										
Chloride			1.00	0.46	mg/L	ND				
LCS Analyzed: 04/20/10 (Lab Number:10D1994-BS1, Batch: 10D1994)										
Chloride		25.0	1.00	0.46	mg/L	25.8	103	90-110		
<u>General Chemistry Parameters</u>										
Blank Analyzed: 04/23/10 (Lab Number:10D2194-BLK1, Batch: 10D2194)										
Total Organic Carbon			1.0	0.4	mg/L	ND				
LCS Analyzed: 04/23/10 (Lab Number:10D2194-BS1, Batch: 10D2194)										
Total Organic Carbon		60.0	1.0	0.4	mg/L	60.6	101	90-110		

Chain of Custody Record

Temperature on Receipt: _____
 Drilling Water? Yes No

Project Name: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: NATIONAL FIRE GAS
 Address: C/O CRAMER TECHNICAL ASSOCIATES
 9120 MAIN ST
 CLARENCE INY 91031
 Project Name and Location (State):
 Project Number: 14031
 Project Manager: DAVID HARTY
 Telephone Number (Area Code/Local Number): (716) 654-2293
 Site Contact:
 Laboratory Number: 139805
 Date: 4/19/10
 Lab Number:
 Chain of Custody Number: 139805

Container/Package Identification No.

Sample ID No. and Description
 (Conditions for each sample may be combined on one line)

BRINE

Date: 4/19/10

Time: 11:15

Temp: 70

Wind: 10

Humidity: 70

Pressure: 30

Visibility: 10

Clouds: 10

Soil: 10

Water: 10

Air: 10

Other: 10

Analysis (check list if more than 1 sample)	PP Volatiles	PP SEMI-VOL	PP PESTICIDES	PP PCBs	TOTAL CN	TOTAL PHENOLICS	COND.	OIL + GREASE	TDS	TOC	TOX	CI-METALS *
	X	X	X	X	X	X	X	X	X	X	X	X

Special Instructions/Conditions of Analysis

Accepted/Received Signature: _____
 Absorbent Filterable Shim metal Pesticide Unknown Sample Disposed Return To Client Original By Lab Archive For _____
 Turn Acceptance Form Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Over-STANDARD
 1. Requested By: _____ Date: 4/19/10 Time: 11:15
 2. Requested By: _____ Date: 4/19/10 Time: 11:15
 3. Requested By: _____ Date: _____ Time: _____
 4. Requested By: _____ Date: _____ Time: _____
 5. Requested By: _____ Date: _____ Time: _____

* METALS = Sb, As, Be, Cd, Ca, Cr, Cu, Pb, Hg, Ni, Se, Ag, Na, Ti, Zn
 TEST METHOD: METALS - Analyzed to EPA Method 8210/8211. See also the Special Instructions on the back of this form.

610

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

MAY 30 2012

Mr. Raymond Orr
Highway Superintendent
Town of Cameron
4075 Railroad St.
P.O. Box 1932
Cameron, NY 14819

Dear Mr. Orr:

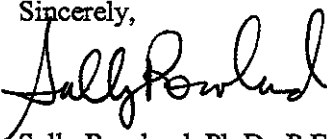
Re: Brine Bud # B049-12 – Dust Control and Road Stabilization

We have reviewed the information submitted in your May 23, 2012 petition for the proposed beneficial use of brine from the National Fuel Gas Beech Hill Station facility located in Whitesville, New York as part of your dust control and road stabilization system. We have also reviewed the analytical report provided by National Fuel Gas for brine from the above sources dated March 6, 2012. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- All vehicles transporting and spreading brine must have a valid Part 364 permit.
- Dust control activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied within 50 feet of any stream, creek, lake or other body of water or in a manner that could cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be spread after daylight hours, during rain or when rain is imminent or on sections of road having a grade exceeding 10 percent.
- Brine is approved for road spreading use on the unpaved sections of Town of Cameron roads as listed and outlined on the submitted map. Brine may be applied a maximum of twenty times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,


Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

FROM:

TOWN OF CAMERON

4075 RAILROAD ST.

PO BOX 1932

CAMERON, NY.

RAYMOND ORR HIGHWAY SUPERINTENDANT

TO: NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION

DIV. OF SOLID & HAZARDOUS MATERIALS

BUREAU OF SOLID WASTE, REDUCTION & RECYCLING, 9TH FLOOR

625 BROADWAY, ALBANY, NY. 12233-7253

PERMIT # 8A-705 EXPIRES 6/18/2012 FOR RENEWAL

HAUL SALT BRINE FROM NATIONAL FUEL GAS SPLY CORP.

BEECH HILL STATION, WHITESVILLE, NY TO

TOWN OF CAMERON NY. TO BE USED FOR DUST

CONTROL + ROAD STABILIZATION.

BRINE WILL BE HAULED IN A 3500 GAL TANK

& APPLIED BY A SPREADER BAR WITH CONTROLS

IN CAB OF TRUCK. THE TANK IS ONLY FOR

HAULING SALT BRINE. BRINE WILL BE PUT

ON ALL TOWN ROADS DURING DAYLIGHT HOURS

ONLY, & NOT NEAR ANY STREAMS OR BODIES

OF WATER OR ROAD EXCEEDING 10%. NOT APPLIED

DURING RAIN OR ON WET ROADS OR IF RAIN IS

IMMINENT. NO BRINE STORAGE ON PREMISES

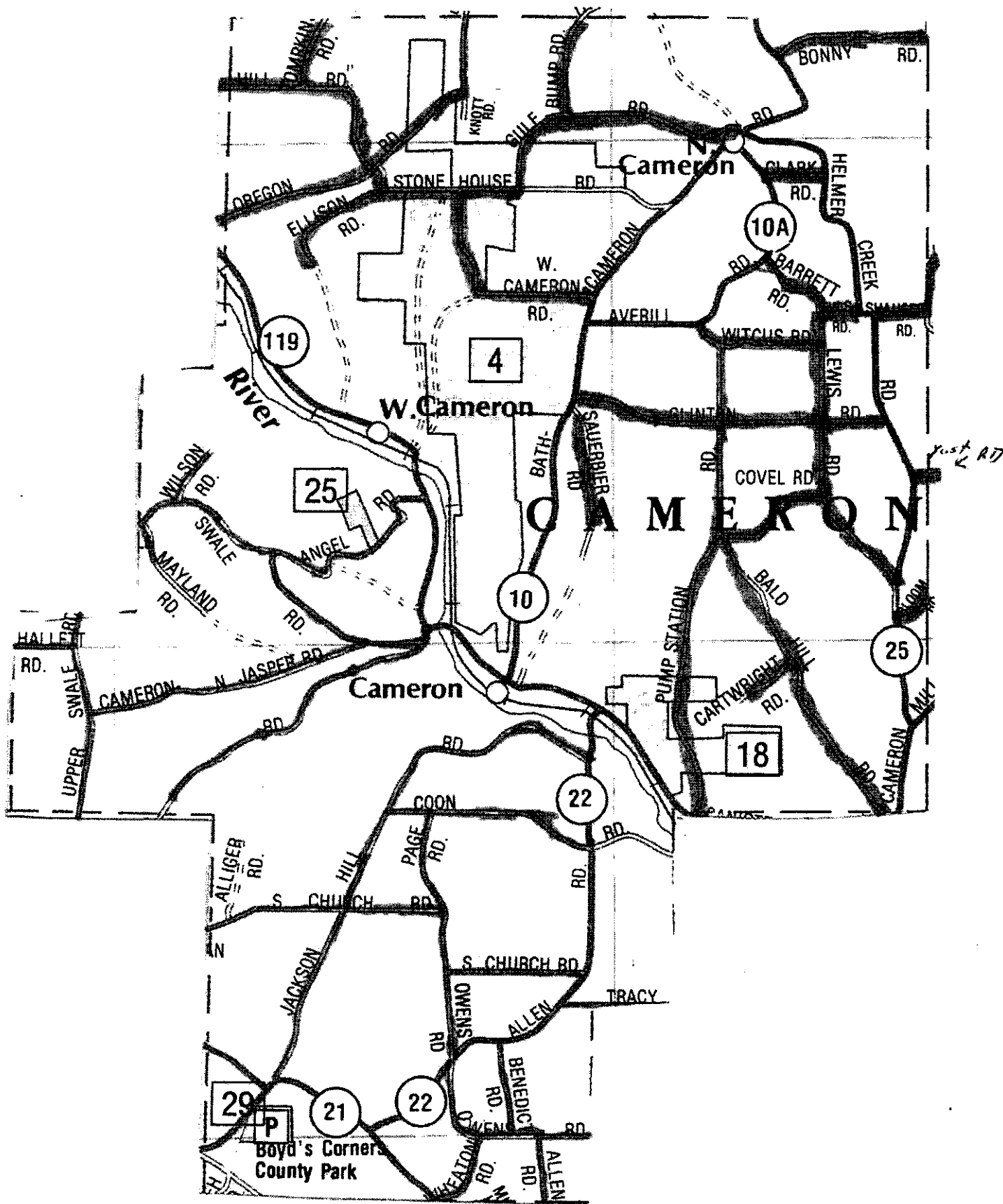
CONTACT. RAYMOND ORR - HIGHWAY SUPERINTENDENT

Raymond Orr 5/23/12

List of roads for salt brine

Colby Creek Road
Norton Hollow Road
North Road
Cline Hill Road
Doty Road
Banks Hollow Road
Alvord Hill Road
Cornell Road
Potter Road
Sherman Road
Wycoff Road
Highup Road
Drake Hill Road
Coon Road
Waight Road
Hunter Hill Road
Welty Road
Smith Road
House Road
Baucher Road
Wade Hill Road
Five Corners Road
Vroman Road
McMaster Road
Turner Road
March Hill Road
Simpson Road
Olds Road
Murphy Road
Grass Hill Road
Jackson Hill Road

All roads in the town of Jasper



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THE LEADER IN ENVIRONMENTAL TESTING

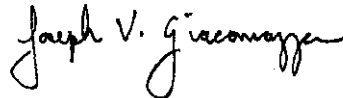
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-16320-1
Client Project/Site: Brine Priority Pollutant Analysis

For:
National Fuel Gas Supply Company
5955 New Taylor Road
Orchard Park, New York 14127

Attn: James Clark



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

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	6
Client Sample Results	7
Surrogate Summary	12
QC Sample Results	14
QC Association Summary	27
Lab Chronicle	31
Certification Summary	32
Method Summary	33
Sample Summary	34
Chain of Custody	35
Receipt Checklists	36

Definitions/Glossary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
*	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Job ID: 480-16320-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-16320-1

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

No analytical or quality issues were noted.

GC/MS Semi VOA

Method 625: The method blank for batch 52174 contained multiple analytes above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

GC Semi VOA

Method 608: The following sample: (LCS 480-52444/2-A), has Surrogate outside recovery limits, though the secondary surrogate is within limits.

Method 608: The following sample was diluted due to the nature of the sample matrix: BRINE (480-16320-1). Therefore, surrogate recoveries are not representative, and elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals

Method 200.7 Rev 4.4: The Method Blank for batch 480-52385 contained total sodium and calcium above the method detection limits. These target analyte concentrations were less than the reporting limits (RLs); therefore, re-extraction and/or re-analysis of sample BRINE (480-16320-1) was not performed.

Method 200.7 Rev 4.4: The following sample was diluted for total silver, lead and selenium due to the nature of the sample matrix: BRINE (480-16320-1). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following sample was diluted due to the abundance of target analyte total calcium & magnesium: BRINE (480-16320-1). Elevated reporting limits (RLs) are provided.

Method 200.7, 3005A: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: BRINE (480-16320-1). The reporting limits (RLs) have been adjusted proportionately.

Method 245.1, 7470A: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples: BRINE (480-16320-1). This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample was prepared and analyzed at a 5x dilution, which maintained the purple color during digestion.

No other analytical or quality issues were noted.

General Chemistry

Method SM 2540C: The method blank for batch 52430 contained total dissolved solids above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method SM 2540C: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: BRINE (480-16320-1). The reporting limits (RLs) have been adjusted proportionately.

Method 335.4, 9012A: The laboratory control sample (LCS) for batch 52395 exceeded control limits for the following analytes: Cyanide. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. BRINE (480-16320-1)

Case Narrative

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Job ID: 480-16320-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method 420.4: The method blank for batch 52948 contained phenol above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. BRINE (480-16320-1)

Method 9020: Breakthrough exceeded 10% for the following sample: BRINE (480-16320-1). Re-analysis was performed with concurring results. The data have been reported.

Method 9020: This method uses a dilution applied during the preparation portion of the procedure. The dilution factor (DF) presented on the final report represents only the analytical dilution, not the dilution factor applied in the preparation batch. BRINE (480-16320-1)

Method 9060: The method blank for batch 53807 contained TOC above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

Organic Prep

Method 625: Precipitate formed when sodium hydroxide was added.

No other analytical or quality issues were noted.

4

Detection Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	53		5.0	0.60	ug/L	1			624	Total/NA
Chloromethane	2.8	J	5.0	0.64	ug/L	1			624	Total/NA
Toluene	11		5.0	0.45	ug/L	1			624	Total/NA
Benzo[a]anthracene	0.30	J B	5.0	0.043	ug/L	1			625	Total/NA
Bis(2-ethylhexyl) phthalate	0.93	J B	9.9	0.85	ug/L	1			625	Total/NA
Chrysene	0.28	J B	5.0	0.035	ug/L	1			625	Total/NA
Naphthalene	0.32	J	5.0	0.079	ug/L	1			625	Total/NA
Pyrene	0.13	J	5.0	0.040	ug/L	1			625	Total/NA
2,4-Dichlorophenol	0.39	J	5.0	0.30	ug/L	1			625	Total/NA
2,4-Dimethylphenol	0.57	J	5.0	0.13	ug/L	1			625	Total/NA
Phenol	25		5.0	0.12	ug/L	1			625	Total/NA
Calcium	48800		50.0	10.0	mg/L	50			200.7 Rev 4.4	Total/NA
Chromium	0.0025	J	0.0080	0.0017	mg/L	1			200.7 Rev 4.4	Total/NA
Magnesium	5220		4.0	0.87	mg/L	10			200.7 Rev 4.4	Total/NA
Nickel	0.013	J	0.020	0.0025	mg/L	1			200.7 Rev 4.4	Total/NA
Sodium	6450	B	2.0	0.65	mg/L	1			200.7 Rev 4.4	Total/NA
Zinc	0.11		0.020	0.0034	mg/L	1			200.7 Rev 4.4	Total/NA
Oil & Grease	330		4.8	1.3	mg/L	1			1664A	Total/NA
Phenolics, Total Recoverable	0.069	B	0.050	0.025	mg/L	5			420.4	Total/NA
Halogens, Total Organic	39000		4000	1300	ug/L	1			9020	Total/NA
Total Organic Carbon	1.9		1.0	0.43	mg/L	1			9060	Total/NA
Total Dissolved Solids	217000		2000	800	mg/L	1			SM 2540C	Total/NA
Chloride	209000		6050	2780	mg/L	6050			SM 4500 Cl- E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	19300		1.00	1.00	umhos/cm	1			120.1	Total/NA
pH	4.81		0.100	0.100	SU	1			9040B	Total/NA

5

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

No Detections

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	53		5.0	0.60	ug/L			02/20/12 15:09	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 15:09	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 15:09	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 15:09	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 15:09	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 15:09	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 15:09	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 15:09	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 15:09	1
Chloromethane	2.8	J	5.0	0.64	ug/L			02/20/12 15:09	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 15:09	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 15:09	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 15:09	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 15:09	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 15:09	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 15:09	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 15:09	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 15:09	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 15:09	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 15:09	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 15:09	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 15:09	1
Toluene	.11		5.0	0.45	ug/L			02/20/12 15:09	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 15:09	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 15:09	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 15:09	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 15:09	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 15:09	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 15:09	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 15:09	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		72 - 130		02/20/12 15:09	1
4-Bromofluorobenzene (Surr)	98		69 - 121		02/20/12 15:09	1
Toluene-d8 (Surr)	99		70 - 123		02/20/12 15:09	1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.059	ug/L		02/20/12 10:21	02/21/12 12:15	1
Acenaphthylene	ND		5.0	0.034	ug/L		02/20/12 10:21	02/21/12 12:15	1
Anthracene	ND		5.0	0.052	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzidine	ND		79	2.5	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[a]anthracene	0.30	J B	5.0	0.043	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[a]pyrene	ND		5.0	0.057	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[b]fluoranthene	ND		5.0	0.061	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[g,h,i]perylene	ND		5.0	0.099	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[k]fluoranthene	ND		5.0	0.041	ug/L		02/20/12 10:21	02/21/12 12:15	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		02/20/12 10:21	02/21/12 12:15	1
Bis(2-chloroethoxy)methane	ND		5.0	0.084	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,2'-oxybis[1-chloropropane]	ND		5.0	0.085	ug/L		02/20/12 10:21	02/21/12 12:15	1

6

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.93	J B	9.9	0.85	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Chloronaphthalene	ND		5.0	0.067	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L		02/20/12 10:21	02/21/12 12:15	1
Chrysene	0.28	J B	5.0	0.035	ug/L		02/20/12 10:21	02/21/12 12:15	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		02/20/12 10:21	02/21/12 12:15	1
Di-n-butyl phthalate	ND		5.0	0.93	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2-Dichlorobenzene	ND		9.9	0.14	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,3-Dichlorobenzene	ND		9.9	0.068	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,4-Dichlorobenzene	ND		9.9	0.089	ug/L		02/20/12 10:21	02/21/12 12:15	1
3,3'-Dichlorobenzidine	ND		5.0	0.81	ug/L		02/20/12 10:21	02/21/12 12:15	1
Diethyl phthalate	ND		5.0	0.17	ug/L		02/20/12 10:21	02/21/12 12:15	1
Dimethyl phthalate	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,6-Dinitrotoluene	ND		5.0	0.71	ug/L		02/20/12 10:21	02/21/12 12:15	1
Di-n-octyl phthalate	ND		5.0	4.4	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2-Diphenylhydrazine	ND		9.9	0.062	ug/L		02/20/12 10:21	02/21/12 12:15	1
Fluoranthene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
Fluorene	ND		5.0	0.042	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorobenzene	ND		5.0	0.27	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorobutadiene	ND		5.0	0.61	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachloroethane	ND		5.0	0.48	ug/L		02/20/12 10:21	02/21/12 12:15	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.18	ug/L		02/20/12 10:21	02/21/12 12:15	1
Isophorone	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 12:15	1
Naphthalene	0.32	J	5.0	0.079	ug/L		02/20/12 10:21	02/21/12 12:15	1
Nitrobenzene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodimethylamine	ND		9.9	0.95	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodiphenylamine	ND		5.0	0.39	ug/L		02/20/12 10:21	02/21/12 12:15	1
Phenanthrene	ND		5.0	0.070	ug/L		02/20/12 10:21	02/21/12 12:15	1
Pyrene	0.13	J	5.0	0.040	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2,4-Trichlorobenzene	ND		9.9	0.49	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Chloro-3-methylphenol	ND		5.0	0.55	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Chlorophenol	ND		5.0	0.15	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dichlorophenol	0.39	J	5.0	0.30	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dimethylphenol	0.57	J	5.0	0.13	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dinitrophenol	ND		9.9	0.83	ug/L		02/20/12 10:21	02/21/12 12:15	1
4,6-Dinitro-2-methylphenol	ND		9.9	0.75	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Nitrophenol	ND		5.0	0.14	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Nitrophenol	ND		9.9	1.3	ug/L		02/20/12 10:21	02/21/12 12:15	1
Pentachlorophenol	ND		9.9	0.41	ug/L		02/20/12 10:21	02/21/12 12:15	1
Phenol	25		5.0	0.12	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 12:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	112		52 - 151				02/20/12 10:21	02/21/12 12:15	1
2-Fluorobiphenyl	84		44 - 120				02/20/12 10:21	02/21/12 12:15	1
2-Fluorophenol	70		17 - 120				02/20/12 10:21	02/21/12 12:15	1
Nitrobenzene-d5	90		42 - 120				02/20/12 10:21	02/21/12 12:15	1



Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5	86		10 - 120	02/20/12 10:21	02/21/12 12:15	1
p-Terphenyl-d14	26		22 - 125	02/20/12 10:21	02/21/12 12:15	1

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.25	0.032	ug/L		02/22/12 07:58	02/24/12 18:11	5
alpha-BHC	ND		0.25	0.032	ug/L		02/22/12 07:58	02/24/12 18:11	5
beta-BHC	ND		0.25	0.12	ug/L		02/22/12 07:58	02/24/12 18:11	5
delta-BHC	ND		0.25	0.049	ug/L		02/22/12 07:58	02/24/12 18:11	5
gamma-BHC (Lindane)	ND		0.25	0.029	ug/L		02/22/12 07:58	02/24/12 18:11	5
Chlordane (technical)	ND		2.5	0.14	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDD	ND		0.25	0.045	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDE	ND		0.25	0.057	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDT	ND		0.25	0.054	ug/L		02/22/12 07:58	02/24/12 18:11	5
Dieldrin	ND		0.25	0.048	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan I	ND		0.25	0.054	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan II	ND		0.25	0.059	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan sulfate	ND		0.25	0.077	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endrin	ND		0.25	0.068	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endrin aldehyde	ND		0.25	0.080	ug/L		02/22/12 07:58	02/24/12 18:11	5
Heptachlor	ND		0.25	0.042	ug/L		02/22/12 07:58	02/24/12 18:11	5
Heptachlor epoxide	ND		0.25	0.026	ug/L		02/22/12 07:58	02/24/12 18:11	5
Toxaphene	ND		2.5	0.59	ug/L		02/22/12 07:58	02/24/12 18:11	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	15 - 125	02/22/12 07:58	02/24/12 18:11	5
Tetrachloro-m-xylene	0	X	36 - 121	02/22/12 07:58	02/24/12 18:11	5

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1221	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1232	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1242	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1248	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1254	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1260	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1262	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1268	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		10 - 158	02/21/12 07:54	02/21/12 18:28	1
Tetrachloro-m-xylene	90		18 - 146	02/21/12 07:54	02/21/12 18:28	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.040	0.014	mg/L		02/22/12 08:15	02/22/12 18:17	1
Arsenic	ND		0.020	0.011	mg/L		02/22/12 08:15	02/22/12 18:17	1
Beryllium	ND		0.0040	0.00060	mg/L		02/22/12 08:15	02/22/12 18:17	1
Cadmium	ND		0.0020	0.00066	mg/L		02/22/12 08:15	02/22/12 18:17	1
Calcium	48800		50.0	10.0	mg/L		02/22/12 08:15	02/24/12 23:18	50
Chromium	0.0025	J	0.0080	0.0017	mg/L		02/22/12 08:15	02/22/12 18:17	1

6

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.020	0.0030	mg/L		02/22/12 08:15	02/22/12 18:17	1
Lead	ND		0.50	0.30	mg/L		02/22/12 08:15	02/29/12 22:49	50
Magnesium	5220		4.0	0.87	mg/L		02/22/12 08:15	02/24/12 23:11	10
Nickel	0.013	J	0.020	0.0025	mg/L		02/22/12 08:15	02/22/12 18:17	1
Selenium	ND		0.30	0.17	mg/L		02/22/12 08:15	02/24/12 23:11	10
Silver	ND		0.060	0.034	mg/L		02/22/12 08:15	02/24/12 23:11	10
Sodium	6450	B	2.0	0.65	mg/L		02/22/12 08:15	02/22/12 18:17	1
Thallium	ND		0.040	0.020	mg/L		02/22/12 08:15	02/22/12 18:17	1
Zinc	0.11		0.020	0.0034	mg/L		02/22/12 08:15	02/22/12 18:17	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0010	0.00060	mg/L		02/20/12 09:05	02/20/12 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	330		4.8	1.3	mg/L		02/21/12 15:10	02/21/12 15:18	1
Cyanide, Total	ND		0.010	0.0050	mg/L		02/20/12 17:00	02/21/12 15:00	1
Phenolics, Total Recoverable	0.069	B	0.050	0.025	mg/L		02/20/12 19:46	02/25/12 10:40	5
Halogens, Total Organic	39000		4000	1300	ug/L			02/27/12 07:29	1
Total Organic Carbon	1.9		1.0	0.43	mg/L			03/03/12 18:28	1
Total Dissolved Solids	217000		2000	800	mg/L			02/22/12 19:10	1
Chloride	209000		6050	2780	mg/L			02/20/12 23:36	6050
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	19300		1.00	1.00	umhos/cm			02/21/12 09:56	1
pH	4.81		0.100	0.100	SU			02/17/12 19:28	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	0.60	ug/L			02/20/12 15:32	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 15:32	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 15:32	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 15:32	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 15:32	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 15:32	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 15:32	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 15:32	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 15:32	1
Chloromethane	ND		5.0	0.64	ug/L			02/20/12 15:32	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 15:32	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 15:32	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 15:32	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 15:32	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 15:32	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 15:32	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 15:32	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 15:32	1

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 15:32	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 15:32	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 15:32	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 15:32	1
Toluene	ND		5.0	0.45	ug/L			02/20/12 15:32	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 15:32	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 15:32	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 15:32	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 15:32	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 15:32	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 15:32	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 15:32	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		72 - 130		02/20/12 15:32	1
4-Bromofluorobenzene (Surr)	100		69 - 121		02/20/12 15:32	1
Toluene-d8 (Surr)	100		70 - 123		02/20/12 15:32	1

6

Surrogate Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (72-130)	BFB (69-121)	TOL (70-123)
480-16320-1	BRINE	105	98	99
480-16320-2	TRIP BLANK	97	100	100
LCS 480-52148/4	Lab Control Sample	95	101	100
MB 480-52148/5	Method Blank	100	99	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 TOL = Toluene-d8 (Surr)

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBP (52-151)	FBP (44-120)	2FP (17-120)	NBZ (42-120)	PHL (10-120)	TPH (22-125)
480-16320-1	BRINE	112	84	70	90	86	26
LCS 480-52174/2-A	Lab Control Sample	109	85	54	91	41	90
LCSD 480-52174/3-A	Lab Control Sample Dup	117	90	54	93	42	96
MB 480-52174/1-A	Method Blank	109	68	40	73	31	87

Surrogate Legend

TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 PHL = Phenol-d5
 TPH = p-Terphenyl-d14

Method: 608 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (15-125)	TCX1 (36-121)
480-16320-1	BRINE	0 X	0 X
LCS 480-52444/2-A	Lab Control Sample	-1 X	83
LCSD 480-52444/3-A	Lab Control Sample Dup	15	76
MB 480-52444/1-A	Method Blank	18	84

Surrogate Legend

DCB = DCB Decachlorobiphenyl
 TCX = Tetrachloro-m-xylene

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-158)	TCX2 (18-146)
480-16320-1	BRINE	62	90
LCS 480-52270/2-A	Lab Control Sample	75	112

7

Surrogate Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-158)	TCX2 (18-146)
LCSD 480-52270/3-A	Lab Control Sample Dup	70	110
MB 480-52270/1-A	Method Blank	73	109

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

7

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-52148/5

Matrix: Water

Analysis Batch: 52148

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		5.0	0.60	ug/L			02/20/12 12:46	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 12:46	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 12:46	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 12:46	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 12:46	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 12:46	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 12:46	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 12:46	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 12:46	1
Chloromethane	ND		5.0	0.64	ug/L			02/20/12 12:46	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 12:46	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 12:46	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 12:46	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 12:46	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 12:46	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 12:46	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 12:46	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 12:46	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 12:46	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 12:46	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 12:46	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 12:46	1
Toluene	ND		5.0	0.45	ug/L			02/20/12 12:46	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 12:46	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 12:46	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 12:46	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 12:46	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 12:46	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 12:46	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 12:46	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 12:46	1

8

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		02/20/12 12:46	1
4-Bromofluorobenzene (Surr)	99		69 - 121		02/20/12 12:46	1
Toluene-d8 (Surr)	98		70 - 123		02/20/12 12:46	1

Lab Sample ID: LCS 480-52148/4

Matrix: Water

Analysis Batch: 52148

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	20.0	20.1		ug/L		101	64 - 136
Bromodichloromethane	20.0	19.5		ug/L		98	66 - 135
Bromoform	20.0	18.0		ug/L		90	71 - 129
Bromomethane	20.0	22.9		ug/L		115	14 - 186
Carbon tetrachloride	20.0	19.9		ug/L		100	73 - 127
Chlorobenzene	20.0	19.8		ug/L		99	66 - 134
Chloroethane	20.0	21.8		ug/L		109	38 - 162

QC Sample Results

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-52148/4
Matrix: Water
Analysis Batch: 52148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
2-Chloroethyl vinyl ether	100	104		ug/L		104	1 - 224
Chloroform	20.0	20.3		ug/L		102	68 - 133
Chloromethane	20.0	20.8		ug/L		104	1 - 204
Chlorodibromomethane	20.0	19.0		ug/L		95	68 - 133
1,1-Dichloroethane	20.0	20.1		ug/L		101	73 - 128
1,2-Dichloroethane	20.0	19.9		ug/L		100	68 - 132
1,1-Dichloroethene	20.0	18.2		ug/L		91	51 - 150
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	72 - 133
1,2-Dichloropropane	20.0	20.6		ug/L		103	34 - 166
cis-1,3-Dichloropropene	20.0	20.1		ug/L		101	24 - 176
trans-1,3-Dichloropropene	20.0	19.8		ug/L		99	50 - 150
Ethylbenzene	20.0	20.3		ug/L		102	59 - 141
Methylene Chloride	20.0	19.8		ug/L		99	61 - 140
1,1,2,2-Tetrachloroethane	20.0	20.4		ug/L		102	61 - 140
Tetrachloroethene	20.0	20.0		ug/L		100	74 - 127
Toluene	20.0	20.0		ug/L		100	75 - 126
1,1,1-Trichloroethane	20.0	20.9		ug/L		105	75 - 125
1,1,2-Trichloroethane	20.0	19.5		ug/L		98	71 - 129
Trichloroethene	20.0	20.2		ug/L		101	67 - 134
Vinyl chloride	20.0	21.3		ug/L		107	4 - 196
1,2-Dichlorobenzene	20.0	19.3		ug/L		97	63 - 137
1,3-Dichlorobenzene	20.0	19.6		ug/L		98	73 - 127
1,4-Dichlorobenzene	20.0	19.1		ug/L		96	63 - 137
Trichlorofluoromethane	20.0	23.5		ug/L		118	48 - 152

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	95		72 - 130
4-Bromofluorobenzene (Surr)	101		69 - 121
Toluene-d8 (Surr)	100		70 - 123

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-52174/1-A
Matrix: Water
Analysis Batch: 52316

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52174

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		5.0	0.060	ug/L		02/20/12 10:21	02/21/12 11:03	1
Acenaphthylene	ND		5.0	0.034	ug/L		02/20/12 10:21	02/21/12 11:03	1
Anthracene	ND		5.0	0.052	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzidine	ND		80	2.5	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[a]anthracene	0.216	J	5.0	0.043	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[a]pyrene	ND		5.0	0.058	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[b]fluoranthene	ND		5.0	0.062	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[g,h,i]perylene	ND		5.0	0.10	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[k]fluoranthene	ND		5.0	0.042	ug/L		02/20/12 10:21	02/21/12 11:03	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		02/20/12 10:21	02/21/12 11:03	1
Bis(2-chloroethoxy)methane	ND		5.0	0.085	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,2'-oxybis[1-chloropropane]	ND		5.0	0.086	ug/L		02/20/12 10:21	02/21/12 11:03	1

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-52174/1-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52174

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bis(2-ethylhexyl) phthalate	1.02	J	10	0.86	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 11:03	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		02/20/12 10:21	02/21/12 11:03	1
2-Chloronaphthalene	ND		5.0	0.068	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L		02/20/12 10:21	02/21/12 11:03	1
Chrysene	0.165	J	5.0	0.036	ug/L		02/20/12 10:21	02/21/12 11:03	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		02/20/12 10:21	02/21/12 11:03	1
Di-n-butyl phthalate	ND		5.0	0.94	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,2-Dichlorobenzene	ND		10	0.15	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,3-Dichlorobenzene	ND		10	0.069	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,4-Dichlorobenzene	ND		10	0.090	ug/L		02/20/12 10:21	02/21/12 11:03	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		02/20/12 10:21	02/21/12 11:03	1
Diethyl phthalate	ND		5.0	0.17	ug/L		02/20/12 10:21	02/21/12 11:03	1
Dimethyl phthalate	ND		5.0	0.17	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,6-Dinitrotoluene	ND		5.0	0.72	ug/L		02/20/12 10:21	02/21/12 11:03	1
Di-n-octyl phthalate	ND		5.0	4.5	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,2-Diphenylhydrazine	ND		10	0.063	ug/L		02/20/12 10:21	02/21/12 11:03	1
Fluoranthene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 11:03	1
Fluorene	ND		5.0	0.043	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachlorobenzene	ND		5.0	0.28	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachlorobutadiene	ND		5.0	0.62	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachloroethane	ND		5.0	0.48	ug/L		02/20/12 10:21	02/21/12 11:03	1
Indeno[1,2,3-cd]pyrene	0.211	J	5.0	0.19	ug/L		02/20/12 10:21	02/21/12 11:03	1
Isophorone	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 11:03	1
Naphthalene	ND		5.0	0.080	ug/L		02/20/12 10:21	02/21/12 11:03	1
Nitrobenzene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 11:03	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 11:03	1
N-Nitrosodimethylamine	ND		10	0.96	ug/L		02/20/12 10:21	02/21/12 11:03	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		02/20/12 10:21	02/21/12 11:03	1
Phenanthrene	ND		5.0	0.071	ug/L		02/20/12 10:21	02/21/12 11:03	1
Pyrene	ND		5.0	0.041	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,2,4-Trichlorobenzene	ND		10	0.49	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Chloro-3-methylphenol	ND		5.0	0.56	ug/L		02/20/12 10:21	02/21/12 11:03	1
2-Chlorophenol	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dichlorophenol	ND		5.0	0.30	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dimethylphenol	ND		5.0	0.13	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dinitrophenol	ND		10	0.84	ug/L		02/20/12 10:21	02/21/12 11:03	1
4,6-Dinitro-2-methylphenol	ND		10	0.76	ug/L		02/20/12 10:21	02/21/12 11:03	1
2-Nitrophenol	ND		5.0	0.14	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Nitrophenol	ND		10	1.3	ug/L		02/20/12 10:21	02/21/12 11:03	1
Pentachlorophenol	ND		10	0.41	ug/L		02/20/12 10:21	02/21/12 11:03	1
Phenol	ND		5.0	0.12	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 11:03	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	109		52 - 151	02/20/12 10:21	02/21/12 11:03	1
2-Fluorobiphenyl	68		44 - 120	02/20/12 10:21	02/21/12 11:03	1

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-52174/1-A

Matrix: Water

Analysis Batch: 52316

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 52174

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	40		17 - 120	02/20/12 10:21	02/21/12 11:03	1
Nitrobenzene-d5	73		42 - 120	02/20/12 10:21	02/21/12 11:03	1
Phenol-d5	31		10 - 120	02/20/12 10:21	02/21/12 11:03	1
p-Terphenyl-d14	87		22 - 125	02/20/12 10:21	02/21/12 11:03	1

Lab Sample ID: LCS 480-52174/2-A

Matrix: Water

Analysis Batch: 52316

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 52174

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Acenaphthene	100	89.4		ug/L		89		47 - 145
Acenaphthylene	100	90.4		ug/L		90		33 - 145
Anthracene	100	97.5		ug/L		98		27 - 133
Benzo[a]anthracene	100	98.9		ug/L		99		33 - 143
Benzo[a]pyrene	100	99.5		ug/L		100		17 - 163
Benzo[b]fluoranthene	100	99.1		ug/L		99		24 - 159
Benzo[g,h,i]perylene	100	102		ug/L		102		1 - 219
Benzo[k]fluoranthene	100	93.1		ug/L		93		11 - 162
Bis(2-chloroethyl)ether	100	80.6		ug/L		81		12 - 158
Bis(2-chloroethoxy)methane	100	86.8		ug/L		87		33 - 184
2,2'-oxybis[1-chloropropane]	100	76.3		ug/L		76		36 - 166
Bis(2-ethylhexyl) phthalate	100	107		ug/L		107		8 - 158
4-Bromophenyl phenyl ether	100	101		ug/L		101		53 - 127
Butyl benzyl phthalate	100	112		ug/L		112		1 - 152
2-Chloronaphthalene	100	81.0		ug/L		81		60 - 118
4-Chlorophenyl phenyl ether	100	92.5		ug/L		93		25 - 158
Chrysene	100	94.6		ug/L		95		17 - 168
Dibenz(a,h)anthracene	100	97.5		ug/L		98		1 - 227
Di-n-butyl phthalate	100	108		ug/L		108		1 - 118
1,2-Dichlorobenzene	100	55.2		ug/L		55		32 - 129
1,3-Dichlorobenzene	100	52.3		ug/L		52		1 - 172
1,4-Dichlorobenzene	100	52.8		ug/L		53		20 - 124
3,3'-Dichlorobenzidine	100	83.3		ug/L		83		1 - 262
Diethyl phthalate	100	105		ug/L		105		1 - 114
Dimethyl phthalate	100	99.9		ug/L		100		1 - 112
2,4-Dinitrotoluene	100	108		ug/L		108		39 - 139
2,6-Dinitrotoluene	100	111		ug/L		111		50 - 158
Di-n-octyl phthalate	100	115		ug/L		115		4 - 146
Fluoranthene	100	100		ug/L		100		26 - 137
Fluorene	100	94.7		ug/L		95		59 - 121
Hexachlorobenzene	100	99.3		ug/L		99		1 - 152
Hexachlorocyclopentadiene	100	62.4		ug/L		62		5 - 120
Hexachloroethane	100	50.2		ug/L		50		40 - 113
Indeno[1,2,3-cd]pyrene	100	95.6		ug/L		96		1 - 171
Isophorone	100	92.1		ug/L		92		21 - 196
Naphthalene	100	67.7		ug/L		68		21 - 133
Nitrobenzene	100	87.0		ug/L		87		35 - 180
N-Nitrosodi-n-propylamine	100	93.7		ug/L		94		1 - 230
N-Nitrosodiphenylamine	100	103		ug/L		103		54 - 125

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-52174/2-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52174

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
Phenanthrene	100	96.0		ug/L		96	54 - 120	
Pyrene	100	95.4		ug/L		95	52 - 115	
1,2,4-Trichlorobenzene	100	57.2		ug/L		57	44 - 142	
4-Chloro-3-methylphenol	100	100		ug/L		100	22 - 147	
2-Chlorophenol	100	82.5		ug/L		83	23 - 134	
2,4-Dichlorophenol	100	91.2		ug/L		91	39 - 135	
2,4-Dimethylphenol	100	93.9		ug/L		94	32 - 119	
2,4-Dinitrophenol	100	89.9		ug/L		90	1 - 191	
4,6-Dinitro-2-methylphenol	100	103		ug/L		103	1 - 181	
2-Nitrophenol	100	92.1		ug/L		92	29 - 182	
4-Nitrophenol	100	62.8		ug/L		63	1 - 132	
Pentachlorophenol	100	107		ug/L		107	14 - 176	
Phenol	100	43.8		ug/L		44	5 - 112	
2,4,6-Trichlorophenol	100	103		ug/L		103	37 - 144	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	109		52 - 151
2-Fluorobiphenyl	85		44 - 120
2-Fluorophenol	54		17 - 120
Nitrobenzene-d5	91		42 - 120
Phenol-d5	41		10 - 120
p-Terphenyl-d14	90		22 - 125

Lab Sample ID: LCSD 480-52174/3-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 52174

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	
Acenaphthene	100	95.0		ug/L		95	47 - 145	6	25	
Acenaphthylene	100	96.4		ug/L		96	33 - 145	6	22	
Anthracene	100	104		ug/L		104	27 - 133	6	15	
Benzo[a]anthracene	100	105		ug/L		105	33 - 143	6	15	
Benzo[a]pyrene	100	107		ug/L		107	17 - 163	8	15	
Benzo[b]fluoranthene	100	105		ug/L		105	24 - 159	6	17	
Benzo[g,h,i]perylene	100	109		ug/L		109	1 - 219	6	19	
Benzo[k]fluoranthene	100	101		ug/L		101	11 - 162	9	19	
Bis(2-chloroethyl)ether	100	83.6		ug/L		84	12 - 158	4	33	
Bis(2-chloroethoxy)methane	100	90.7		ug/L		91	33 - 184	4	23	
2,2'-oxybis[1-chloropropane]	100	79.8		ug/L		80	36 - 166	4	36	
Bis(2-ethylhexyl) phthalate	100	115		ug/L		115	8 - 158	6	15	
4-Bromophenyl phenyl ether	100	107		ug/L		107	53 - 127	6	16	
Butyl benzyl phthalate	100	119		ug/L		119	1 - 152	6	15	
2-Chloronaphthalene	100	86.5		ug/L		87	60 - 118	7	30	
4-Chlorophenyl phenyl ether	100	99.0		ug/L		99	25 - 158	7	15	
Chrysene	100	100		ug/L		100	17 - 168	6	15	
Dibenz(a,h)anthracene	100	104		ug/L		104	1 - 227	7	18	
Di-n-butyl phthalate	100	115		ug/L		115	1 - 118	6	15	
1,2-Dichlorobenzene	100	56.1		ug/L		56	32 - 129	2	38	
1,3-Dichlorobenzene	100	53.1		ug/L		53	1 - 172	2	37	

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-52174/3-A

Matrix: Water

Analysis Batch: 52316

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 52174

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	
								RPD	Limit
1,4-Dichlorobenzene	100	53.6		ug/L		54	20 - 124	2	40
3,3'-Dichlorobenzidine	100	87.0		ug/L		87	1 - 262	4	31
Diethyl phthalate	100	112		ug/L		112	1 - 114	6	15
Dimethyl phthalate	100	107		ug/L		107	1 - 112	6	15
2,4-Dinitrotoluene	100	116		ug/L		116	39 - 139	7	20
2,6-Dinitrotoluene	100	119		ug/L		119	50 - 158	7	17
Di-n-octyl phthalate	100	123		ug/L		123	4 - 146	6	15
Fluoranthene	100	107		ug/L		107	26 - 137	6	15
Fluorene	100	101		ug/L		101	59 - 121	7	18
Hexachlorobenzene	100	105		ug/L		105	1 - 152	5	15
Hexachlorocyclopentadiene	100	65.7		ug/L		66	5 - 120	5	50
Hexachloroethane	100	51.2		ug/L		51	40 - 113	2	43
Indeno[1,2,3-cd]pyrene	100	102		ug/L		102	1 - 171	7	17
Isophorone	100	96.3		ug/L		96	21 - 196	4	21
Naphthalene	100	70.1		ug/L		70	21 - 133	3	31
Nitrobenzene	100	90.6		ug/L		91	35 - 180	4	27
N-Nitrosodi-n-propylamine	100	101		ug/L		101	1 - 230	7	23
N-Nitrosodiphenylamine	100	111		ug/L		111	54 - 125	7	15
Phenanthrene	100	101		ug/L		101	54 - 120	5	16
Pyrene	100	101		ug/L		101	52 - 115	5	15
1,2,4-Trichlorobenzene	100	59.2		ug/L		59	44 - 142	3	34
4-Chloro-3-methylphenol	100	106		ug/L		106	22 - 147	5	16
2-Chlorophenol	100	85.2		ug/L		85	23 - 134	3	26
2,4-Dichlorophenol	100	93.8		ug/L		94	39 - 135	3	23
2,4-Dimethylphenol	100	95.0		ug/L		95	32 - 119	1	18
2,4-Dinitrophenol	100	94.2		ug/L		94	1 - 191	5	29
4,6-Dinitro-2-methylphenol	100	111		ug/L		111	1 - 181	7	30
2-Nitrophenol	100	96.2		ug/L		96	29 - 182	4	28
4-Nitrophenol	100	66.1		ug/L		66	1 - 132	5	24
Pentachlorophenol	100	113		ug/L		113	14 - 176	6	21
Phenol	100	45.3		ug/L		45	5 - 112	3	36
2,4,6-Trichlorophenol	100	109		ug/L		109	37 - 144	6	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	117		52 - 151
2-Fluorobiphenyl	90		44 - 120
2-Fluorophenol	54		17 - 120
Nitrobenzene-d5	93		42 - 120
Phenol-d5	42		10 - 120
p-Terphenyl-d14	96		22 - 125

Method: 608 - Organochlorine Pesticides in Water

Lab Sample ID: MB 480-52444/1-A

Matrix: Water

Analysis Batch: 52783

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 52444

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin	ND		0.050	0.0066	ug/L		02/22/12 07:58	02/24/12 13:24	1

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 480-52444/1-A
 Matrix: Water
 Analysis Batch: 52783

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52444

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
alpha-BHC	ND		0.050	0.0068	ug/L		02/22/12 07:58	02/24/12 13:24	1
beta-BHC	ND		0.050	0.025	ug/L		02/22/12 07:58	02/24/12 13:24	1
delta-BHC	ND		0.050	0.010	ug/L		02/22/12 07:58	02/24/12 13:24	1
gamma-BHC (Lindane)	ND		0.050	0.0060	ug/L		02/22/12 07:58	02/24/12 13:24	1
Chlordane (technical)	ND		0.50	0.029	ug/L		02/22/12 07:58	02/24/12 13:24	1
4,4'-DDD	ND		0.050	0.0092	ug/L		02/22/12 07:58	02/24/12 13:24	1
4,4'-DDE	ND		0.050	0.012	ug/L		02/22/12 07:58	02/24/12 13:24	1
4,4'-DDT	ND		0.050	0.011	ug/L		02/22/12 07:58	02/24/12 13:24	1
Dieldrin	ND		0.050	0.0098	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endosulfan I	ND		0.050	0.011	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endosulfan II	ND		0.050	0.012	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endrin	ND		0.050	0.014	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endrin aldehyde	ND		0.050	0.016	ug/L		02/22/12 07:58	02/24/12 13:24	1
Heptachlor	ND		0.050	0.0085	ug/L		02/22/12 07:58	02/24/12 13:24	1
Heptachlor epoxide	ND		0.050	0.0053	ug/L		02/22/12 07:58	02/24/12 13:24	1
Toxaphene	ND		0.50	0.12	ug/L		02/22/12 07:58	02/24/12 13:24	1

8

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	18		15 - 125	02/22/12 07:58	02/24/12 13:24	1
Tetrachloro-m-xylene	84		36 - 121	02/22/12 07:58	02/24/12 13:24	1

Lab Sample ID: LCS 480-52444/2-A
 Matrix: Water
 Analysis Batch: 52783

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52444

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Aldrin	0.500	0.350		ug/L		70		35 - 120
alpha-BHC	0.500	0.403		ug/L		81		39 - 121
beta-BHC	0.500	0.412		ug/L		82		39 - 138
delta-BHC	0.500	0.404		ug/L		81		40 - 121
gamma-BHC (Lindane)	0.500	0.399		ug/L		80		54 - 134
4,4'-DDD	0.500	0.394		ug/L		79		54 - 142
4,4'-DDE	0.500	0.344		ug/L		69		48 - 128
4,4'-DDT	0.500	0.363		ug/L		73		53 - 136
Dieldrin	0.500	0.397		ug/L		79		52 - 132
Endosulfan I	0.500	0.370		ug/L		74		47 - 126
Endosulfan II	0.500	0.395		ug/L		79		48 - 134
Endosulfan sulfate	0.500	0.438		ug/L		88		57 - 140
Endrin	0.500	0.434		ug/L		87		54 - 135
Endrin aldehyde	0.500	0.409		ug/L		82		55 - 132
Heptachlor	0.500	0.395		ug/L		79		42 - 126
Heptachlor epoxide	0.500	0.399		ug/L		80		53 - 134

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	-1	X	15 - 125
Tetrachloro-m-xylene	83		36 - 121

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 480-52444/3-A
 Matrix: Water
 Analysis Batch: 52783

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 52444

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	%Rec. Limits		RPD	
							RPD	Limit	RPD	Limit
Aldrin	0.500	0.326		ug/L		65	35 - 120	7	50	
alpha-BHC	0.500	0.383		ug/L		77	39 - 121	5	50	
beta-BHC	0.500	0.388		ug/L		78	39 - 138	6	50	
delta-BHC	0.500	0.385		ug/L		77	40 - 121	5	50	
gamma-BHC (Lindane)	0.500	0.374		ug/L		75	54 - 134	6	50	
4,4'-DDD	0.500	0.380		ug/L		76	54 - 142	4	50	
4,4'-DDE	0.500	0.363		ug/L		73	48 - 128	5	50	
4,4'-DDT	0.500	0.371		ug/L		74	53 - 136	2	50	
Dieldrin	0.500	0.376		ug/L		75	52 - 132	5	50	
Endosulfan I	0.500	0.353		ug/L		71	47 - 126	5	50	
Endosulfan II	0.500	0.381		ug/L		76	48 - 134	4	50	
Endosulfan sulfate	0.500	0.413		ug/L		83	57 - 140	6	50	
Endrin	0.500	0.412		ug/L		82	54 - 135	5	50	
Endrin aldehyde	0.500	0.390		ug/L		78	55 - 132	5	50	
Heptachlor	0.500	0.369		ug/L		74	42 - 126	7	50	
Heptachlor epoxide	0.500	0.377		ug/L		75	53 - 134	6	50	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	15		15 - 125
Tetrachloro-m-xylene	76		36 - 121

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 480-52270/1-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52270

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1221	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1232	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1242	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1248	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1254	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1260	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1262	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1268	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	73		10 - 158	02/21/12 07:54	02/21/12 16:57	1
Tetrachloro-m-xylene	109		18 - 146	02/21/12 07:54	02/21/12 16:57	1

Lab Sample ID: LCS 480-52270/2-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52270

Analyte	Spike Added	LCS LCS		Unit	D	%Rec.	%Rec. Limits	
		Result	Qualifier				RPD	Limit
PCB-1016	1.00	0.843		ug/L		84	44 - 154	
PCB-1260	1.00	0.840		ug/L		84	34 - 150	

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 480-52270/2-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52270

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	75		10 - 158
Tetrachloro-m-xylene	112		18 - 146

Lab Sample ID: LCSD 480-52270/3-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 52270

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec.		RPD	Limit
		Result	Qualifier				Limits	RPD		
PCB-1016	1.00	0.936		ug/L		94	44 - 154	10	30	
PCB-1260	1.00	0.832		ug/L		83	34 - 150	1	30	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	70		10 - 158
Tetrachloro-m-xylene	110		18 - 146

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-52385/1-A
 Matrix: Water
 Analysis Batch: 52637

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52385

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		0.020	0.0068	mg/L		02/22/12 08:15	02/22/12 16:55	1
Arsenic	ND		0.010	0.0056	mg/L		02/22/12 08:15	02/22/12 16:55	1
Beryllium	ND		0.0020	0.00030	mg/L		02/22/12 08:15	02/22/12 16:55	1
Cadmium	ND		0.0010	0.00033	mg/L		02/22/12 08:15	02/22/12 16:55	1
Calcium	0.203	J	0.50	0.10	mg/L		02/22/12 08:15	02/22/12 16:55	1
Chromium	ND		0.0040	0.00087	mg/L		02/22/12 08:15	02/22/12 16:55	1
Copper	ND		0.010	0.0015	mg/L		02/22/12 08:15	02/22/12 16:55	1
Lead	ND		0.0050	0.0030	mg/L		02/22/12 08:15	02/22/12 16:55	1
Magnesium	ND		0.20	0.043	mg/L		02/22/12 08:15	02/22/12 16:55	1
Nickel	ND		0.010	0.0013	mg/L		02/22/12 08:15	02/22/12 16:55	1
Selenium	ND		0.015	0.0087	mg/L		02/22/12 08:15	02/22/12 16:55	1
Silver	ND		0.0030	0.0017	mg/L		02/22/12 08:15	02/22/12 16:55	1
Sodium	0.877	J	1.0	0.32	mg/L		02/22/12 08:15	02/22/12 16:55	1
Thallium	ND		0.020	0.010	mg/L		02/22/12 08:15	02/22/12 16:55	1
Zinc	ND		0.010	0.0017	mg/L		02/22/12 08:15	02/22/12 16:55	1

Lab Sample ID: LCS 480-52385/2-A
 Matrix: Water
 Analysis Batch: 52637

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52385

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	RPD
Antimony	0.200	0.201		mg/L		101	85 - 115	
Arsenic	0.200	0.204		mg/L		102	85 - 115	
Beryllium	0.200	0.203		mg/L		102	85 - 115	
Cadmium	0.200	0.207		mg/L		103	85 - 115	
Calcium	10.0	10.05		mg/L		100	85 - 115	
Chromium	0.200	0.206		mg/L		103	85 - 115	

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-52385/2-A
 Matrix: Water
 Analysis Batch: 52637

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52385

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Copper	0.200	0.208		mg/L		104	85 - 115
Lead	0.200	0.202		mg/L		101	85 - 115
Magnesium	10.0	9.84		mg/L		98	85 - 115
Nickel	0.200	0.198		mg/L		99	85 - 115
Selenium	0.200	0.205		mg/L		103	85 - 115
Silver	0.0500	0.0492		mg/L		98	85 - 115
Sodium	10.0	10.40		mg/L		104	85 - 115
Thallium	0.200	0.210		mg/L		105	85 - 115
Zinc	0.200	0.200		mg/L		100	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-52143/1-A
 Matrix: Water
 Analysis Batch: 52218

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52143

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020	0.00012	mg/L		02/20/12 09:05	02/20/12 13:16	1

Lab Sample ID: LCS 480-52143/2-A
 Matrix: Water
 Analysis Batch: 52218

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52143

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Mercury	0.00667	0.00682		mg/L		102	85 - 115

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: LCS 480-52321/1
 Matrix: Water
 Analysis Batch: 52321

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Specific Conductance	998	1047		umhos/cm		105	90 - 110

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-52389/1-A
 Matrix: Water
 Analysis Batch: 52391

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52389

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Oil & Grease	ND		5.0	1.4	mg/L		02/21/12 15:10	02/21/12 15:18	1

Lab Sample ID: LCS 480-52389/2-A
 Matrix: Water
 Analysis Batch: 52391

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52389

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Oil & Grease	38.5	31.54		mg/L		82	78 - 114

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-52257/1-A
 Matrix: Water
 Analysis Batch: 52395

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52257

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cyanide, Total	ND		0.010	0.0050	mg/L		02/20/12 17:00	02/21/12 14:53	1

Lab Sample ID: LCS 480-52257/2-A
 Matrix: Water
 Analysis Batch: 52395

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52257

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Cyanide, Total	0.400	0.479	*	mg/L		120	90 - 110

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-52253/1-A
 Matrix: Water
 Analysis Batch: 52948

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52253

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenolics, Total Recoverable	0.00603	J	0.010	0.0050	mg/L		02/20/12 16:00	02/25/12 09:00	1

Lab Sample ID: LCS 480-52253/2-A
 Matrix: Water
 Analysis Batch: 52948

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52253

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Phenolics, Total Recoverable	0.100	0.0961		mg/L		96	90 - 110

Method: 9020 - Organic Halides, Total (TOX)

Lab Sample ID: MB 480-52866/1
 Matrix: Water
 Analysis Batch: 52866

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Halogens, Total Organic	ND		20.0	6.5	ug/L			02/24/12 13:40	1

Lab Sample ID: LCS 480-52866/2
 Matrix: Water
 Analysis Batch: 52866

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Halogens, Total Organic	100	104.9		ug/L		105	75 - 125

Method: 9040B - pH

Lab Sample ID: LCS 480-52085/1
 Matrix: Water
 Analysis Batch: 52085

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
pH	7.00	6.990		SU		100	99 - 101



QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-53807/27
 Matrix: Water
 Analysis Batch: 53807

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Organic Carbon	ND		1.0	0.43	mg/L			03/03/12 06:02	1

Lab Sample ID: LCS 480-53807/28
 Matrix: Water
 Analysis Batch: 53807

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 480-52580/1
 Matrix: Water
 Analysis Batch: 52580

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	ND		10.0	4.0	mg/L			02/22/12 19:00	1

Lab Sample ID: LCS 480-52580/2
 Matrix: Water
 Analysis Batch: 52580

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-52263/39
 Matrix: Water
 Analysis Batch: 52263

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		1.0	0.46	mg/L			02/20/12 20:34	1

Lab Sample ID: MB 480-52263/60
 Matrix: Water
 Analysis Batch: 52263

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		1.0	0.46	mg/L			02/20/12 22:36	1

Lab Sample ID: MB 480-52263/66
 Matrix: Water
 Analysis Batch: 52263

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		1.0	0.46	mg/L			02/20/12 23:36	1

8

QC Sample Results

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 480-52263/38
Matrix: Water
Analysis Batch: 52263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.78		mg/L		107	90 - 110

Lab Sample ID: LCS 480-52263/65
Matrix: Water
Analysis Batch: 52263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.65		mg/L		107	90 - 110

8

QC Association Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

GC/MS VOA

Analysis Batch: 52148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	624	
480-16320-2	TRIP BLANK	Total/NA	Water	624	
LCS 480-52148/4	Lab Control Sample	Total/NA	Water	624	
MB 480-52148/5	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 52174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	625	
LCS 480-52174/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-52174/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 480-52174/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 52316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	625	52174
LCS 480-52174/2-A	Lab Control Sample	Total/NA	Water	625	52174
LCSD 480-52174/3-A	Lab Control Sample Dup	Total/NA	Water	625	52174
MB 480-52174/1-A	Method Blank	Total/NA	Water	625	52174

GC Semi VOA

Prep Batch: 52270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	3510C	
LCS 480-52270/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-52270/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-52270/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 52404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	608	52270
LCS 480-52270/2-A	Lab Control Sample	Total/NA	Water	608	52270
LCSD 480-52270/3-A	Lab Control Sample Dup	Total/NA	Water	608	52270
MB 480-52270/1-A	Method Blank	Total/NA	Water	608	52270

Prep Batch: 52444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	3510C	
LCS 480-52444/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-52444/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-52444/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 52783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	608	52444
LCS 480-52444/2-A	Lab Control Sample	Total/NA	Water	608	52444
LCSD 480-52444/3-A	Lab Control Sample Dup	Total/NA	Water	608	52444
MB 480-52444/1-A	Method Blank	Total/NA	Water	608	52444

QC Association Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Metals

Prep Batch: 52143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	245.1	
LCS 480-52143/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 480-52143/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 52218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	245.1	52143
LCS 480-52143/2-A	Lab Control Sample	Total/NA	Water	245.1	52143
MB 480-52143/1-A	Method Blank	Total/NA	Water	245.1	52143

Prep Batch: 52385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7	
LCS 480-52385/2-A	Lab Control Sample	Total/NA	Water	200.7	
MB 480-52385/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 52637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385
LCS 480-52385/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	52385
MB 480-52385/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	52385

Analysis Batch: 53019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385

Analysis Batch: 53451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385

General Chemistry

Analysis Batch: 52085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	9040B	
LCS 480-52085/1	Lab Control Sample	Total/NA	Water	9040B	

Prep Batch: 52253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	Distill/Phenol	
LCS 480-52253/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
MB 480-52253/1-A	Method Blank	Total/NA	Water	Distill/Phenol	

Prep Batch: 52257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	Distill/CN	
LCS 480-52257/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 480-52257/1-A	Method Blank	Total/NA	Water	Distill/CN	

9

QC Association Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

General Chemistry (Continued)

Analysis Batch: 52263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	SM 4500 Cl- E	
LCS 480-52263/38	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-52263/65	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 480-52263/39	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-52263/60	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-52263/66	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 52321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	120.1	
LCS 480-52321/1	Lab Control Sample	Total/NA	Water	120.1	

Prep Batch: 52389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	1664A	
LCS 480-52389/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 480-52389/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 52391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	1664A	52389
LCS 480-52389/2-A	Lab Control Sample	Total/NA	Water	1664A	52389
MB 480-52389/1-A	Method Blank	Total/NA	Water	1664A	52389

Analysis Batch: 52395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	335.4	52257
LCS 480-52257/2-A	Lab Control Sample	Total/NA	Water	335.4	52257
MB 480-52257/1-A	Method Blank	Total/NA	Water	335.4	52257

Analysis Batch: 52580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	SM 2540C	
LCS 480-52580/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 480-52580/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 52866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	9020	
LCS 480-52866/2	Lab Control Sample	Total/NA	Water	9020	
MB 480-52866/1	Method Blank	Total/NA	Water	9020	

Analysis Batch: 52948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	420.4	52253
LCS 480-52253/2-A	Lab Control Sample	Total/NA	Water	420.4	52253
MB 480-52253/1-A	Method Blank	Total/NA	Water	420.4	52253

Analysis Batch: 53807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	9060	
LCS 480-53807/28	Lab Control Sample	Total/NA	Water	9060	

QC Association Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

General Chemistry (Continued)

Analysis Batch: 53807 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-53807/27	Method Blank	Total/NA	Water	9060	



Lab Chronicle

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Date Collected: 02/17/12 01:20

Date Received: 02/17/12 15:50

Lab Sample ID: 480-16320-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	52148	02/20/12 15:09	TRB	TAL BUF
Total/NA	Prep	625			52174	02/20/12 10:21	TR	TAL BUF
Total/NA	Analysis	625		1	52316	02/21/12 12:15	AM	TAL BUF
Total/NA	Prep	3510C			52270	02/21/12 07:54	MZ	TAL BUF
Total/NA	Analysis	608		1	52404	02/21/12 18:28	JM	TAL BUF
Total/NA	Prep	3510C			52444	02/22/12 07:58	TR	TAL BUF
Total/NA	Analysis	608		5	52783	02/24/12 18:11	DB	TAL BUF
Total/NA	Prep	245.1			52143	02/20/12 09:05	JM	TAL BUF
Total/NA	Analysis	245.1		1	52218	02/20/12 13:50	JM	TAL BUF
Total/NA	Prep	200.7			52385	02/22/12 08:15	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	52637	02/22/12 18:17	LH	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		10	53019	02/24/12 23:11	LH	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		50	53019	02/24/12 23:18	LH	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		50	53451	02/29/12 22:49	AH	TAL BUF
Total/NA	Analysis	9040B		1	52085	02/17/12 19:28	KS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		6050	52263	02/20/12 23:36	KS	TAL BUF
Total/NA	Analysis	120.1		1	52321	02/21/12 09:56	JS	TAL BUF
Total/NA	Prep	1664A			52389	02/21/12 15:10	EGN	TAL BUF
Total/NA	Analysis	1664A		1	52391	02/21/12 15:18	EGN	TAL BUF
Total/NA	Prep	Distill/CN			52257	02/20/12 17:00	ML	TAL BUF
Total/NA	Analysis	335.4		1	52395	02/21/12 15:00	JR	TAL BUF
Total/NA	Analysis	SM 2540C		1	52580	02/22/12 19:10	KJ	TAL BUF
Total/NA	Analysis	9020		1	52866	02/27/12 07:29	JM	TAL BUF
Total/NA	Prep	Distill/Phenol			52253	02/20/12 19:46	KS	TAL BUF
Total/NA	Analysis	420.4		5	52948	02/25/12 10:40	PN	TAL BUF
Total/NA	Analysis	9060		1	53807	03/03/12 18:28	KAC	TAL BUF

10

Client Sample ID: TRIP BLANK

Date Collected: 02/17/12 01:20

Date Received: 02/17/12 15:50

Lab Sample ID: 480-16320-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	52148	02/20/12 15:32	TRB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas DEQ	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Georgla	State Program	4	N/A
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Kentucky (UST)	State Program	4	30
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	USDA	Federal		P330-08-00242
TestAmerica Buffalo	Virginia	NELAC Secondary AB	3	460185
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1877
TestAmerica Buffalo	West Virginia DEP	State Program	3	252
TestAmerica Buffalo	Wisconsin	State Program	5	998310390



Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL BUF
608	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
120.1	Conductivity, Specific Conductance	MCAWW	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
9020	Organic Halides, Total (TOX)	SW846	TAL BUF
9040B	pH	SW846	TAL BUF
9060	Organic Carbon, Total (TOC)	SW846	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 4500 Cl- E	Chloride, Total	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

12

Sample Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-16320-1	BRINE	Water	02/17/12 01:20	02/17/12 15:50
480-16320-2	TRIP BLANK	Water	02/17/12 01:20	02/17/12 15:50

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 ENVIRONMENTAL TESTING

Sample: R01 GLN50N Lab PM: Schrove, John Center Tracking No(s):
 Phone: (716) 691-2293 E-Mail: john.schrove@testamericainc.com
 Job #:

Company: Frontier Technical Associates
 Address: 9120 Main Street
 City:
 Clearance:
 State, Zip: NY, 14031
 Phone:
 Email: davehta@aol.com
 Project Name: Brine Priority Pollutant Analysis
 Site: NFC WALSVILLE

Due Date Requested:
 TAT Requested (days):
 PO #: DNYG1000009411
 WO #:
 Project #: 48002956
 SSON#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=sediment, G=grab, AT=Total Analysis)	Analysis Requested	Special Instructions/Note:
<u>BRINE</u>	<u>2/12/12</u>	<u>1:20</u>	<u>G</u>	<u>Water</u>	5060 - Total Organic Carbon 420A - Phenolics, Total Recoverable 1664A - Calc. Oil & Grease 9060 - Total Organic Carbon 524 - sml - (MOD) Priority Pollutant List - VOA - 62 906 - PCB - (MOD) Local Method 608 - Pest - Priority Pollutant Pesticides 525 - Priority Pollutant List - SVOA - 625 250C - Calc'd - Total Dissolved Solids 325A - Cyanide, Total 320.1, 9049B 9020 - Calc - Halogens, Total Organic	Preservation Codes: M - Hexane A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amphor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: N - None O - AsHSO2 P - Na2OAS Q - Na2S2O3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylalcohol U - Acetone V - NCA W - pH 4-5 Z - other (specify)

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____ Time: _____
 Relinquished by: [Signature] Date/Time: 2/12/12 3:50 Company: FTA
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Method of Shipment: _____
 Return To Client Disposal By Lab Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Special Instructions/QC Requirements:

Received by: [Signature] Date/Time: 2/17/12 15:50 Company: FTA
 Received by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____

Custody Seal No.: _____
 Yes No

Login Sample Receipt Checklist

Client: National Fuel Gas Supply Company

Job Number: 480-16320-1

Login Number: 16320

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8 #2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	FRONTIER ASS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

15

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

MAY 30 2012

Mr. James Roll
Western New York Gas and Steam Association
13492 Henskee Rd.
Alden, New York 14004

Dear Mr. Roll:

Re: Brine Bud # **B051-12** - Dust Suppression and Road Stabilization

We have reviewed the information submitted in your March 2, 2012 petition for the proposed beneficial use of brine provided by the United States Gypsum Company located in Oakfield, New York as part of your dust control and road stabilization system. We have also reviewed the analytical report provided by United States Gypsum for brine from the above source. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- Dust control and road stabilization activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied after daylight hours or used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be applied on wet roads, during rain, or when rain is imminent.
- Brine is approved for road spreading use on the unpaved roads as shown in your March 2, 2012 petition. Brine may be applied a maximum of four times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

BENEFICIAL USE DETERMINATION APPLICATION

Western New York Gas and Steam Association
10400 Gillette Rd
Alexander NY, PO box 75 14005-0075

James Roll Vice President
jroll@moog.com
13492 Henskee Rd
Alden, New York 14004
(716)937-4589
(716) 359-0352 cell

RECEIVED
NYSDEC

MAR 02 2012

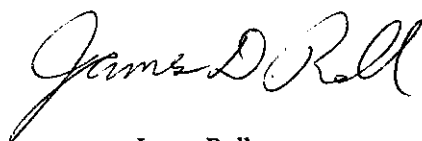
**DIRECTOR'S OFFICE
DIV. OF MATERIALS MANAGEMENT**

Dear Mr. Cochran,

We are requesting the use of gas well brine on our showground property roads. This will be used for dust control and road stabilization. Following are all specified documents required that I could find on the website.

- Our Brine supplier is United States Gypsum Company 2750 Maple Ave, Oakfield NY 14125 (585) 547-2265
- We have a dedicated 3000 gallon storage tank to receive the brine (ref photos)
- Transfer to spreader will be done with a 2 inch agricultural pump into the 1000 gallon spreader tank which is pulled with a 1085 Massey Ferguson tractor.
- Application is done with a spreader bar controlled with a valve on the back of the unit
- The application will be done twice in August, approx 5,000 gallons (10000 gallons), in dry conditions, in daylight hours, finalizing 2 weeks prior to our event. (Sept 6,7,8,9)
- We have followed all guidelines pertaining to environmental concerns as stated on the website.

I hope I have furnished all pertinent data for this permit.
I hope to hear from you soon.



James Roll

BENEFICIAL USE DETERMINATION APPLICATION

Western New York Gas and Steam Association
10400 Gillette Rd
Alexander NY, PO box 75 14005-0075

James Roll Vice President
jroll@moog.com
13492 Henskee Rd
Alden, New York 14004
(716)937-4589
(716) 359-0352 cell

RECEIVED
NYSDEC

MAR 02 2012

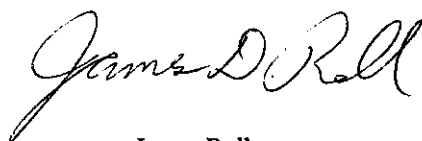
DIRECTOR'S OFFICE
DIV. OF MATERIALS MANAGEMENT

Dear Mr. Cochran,

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- Our Brine supplier is United States Gypsum Company 2750 Maple Ave, Oakfield NY 14125 (585) 547-2265
- We have a dedicated 3000 gallon storage tank to receive the brine (ref photos)
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- Application is done with a spreader bar controlled with a valve on the back of the unit
- The application will be done twice in August, approx 5,000 gallons (10000 gallons), in dry conditions, in daylight hours, finalizing 2 weeks prior to our event. (Sept 6,7,8,9)
- We have followed all guidelines pertaining to environmental concerns as stated on the website.

I hope I have furnished all pertinent data for this permit.
I hope to hear from you soon.



James Roll

Tile installed 2006 = lavender
NYSDEC wetlands = light blue ^{dark}
Army Corps wetlands = dark blue ^{light}
(lines slightly off)

Seward Rd

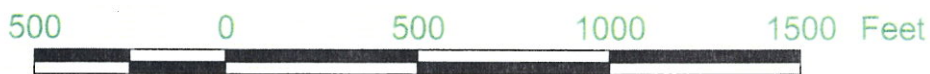
Walker Rd

Stannard Rd



Gillette Rd

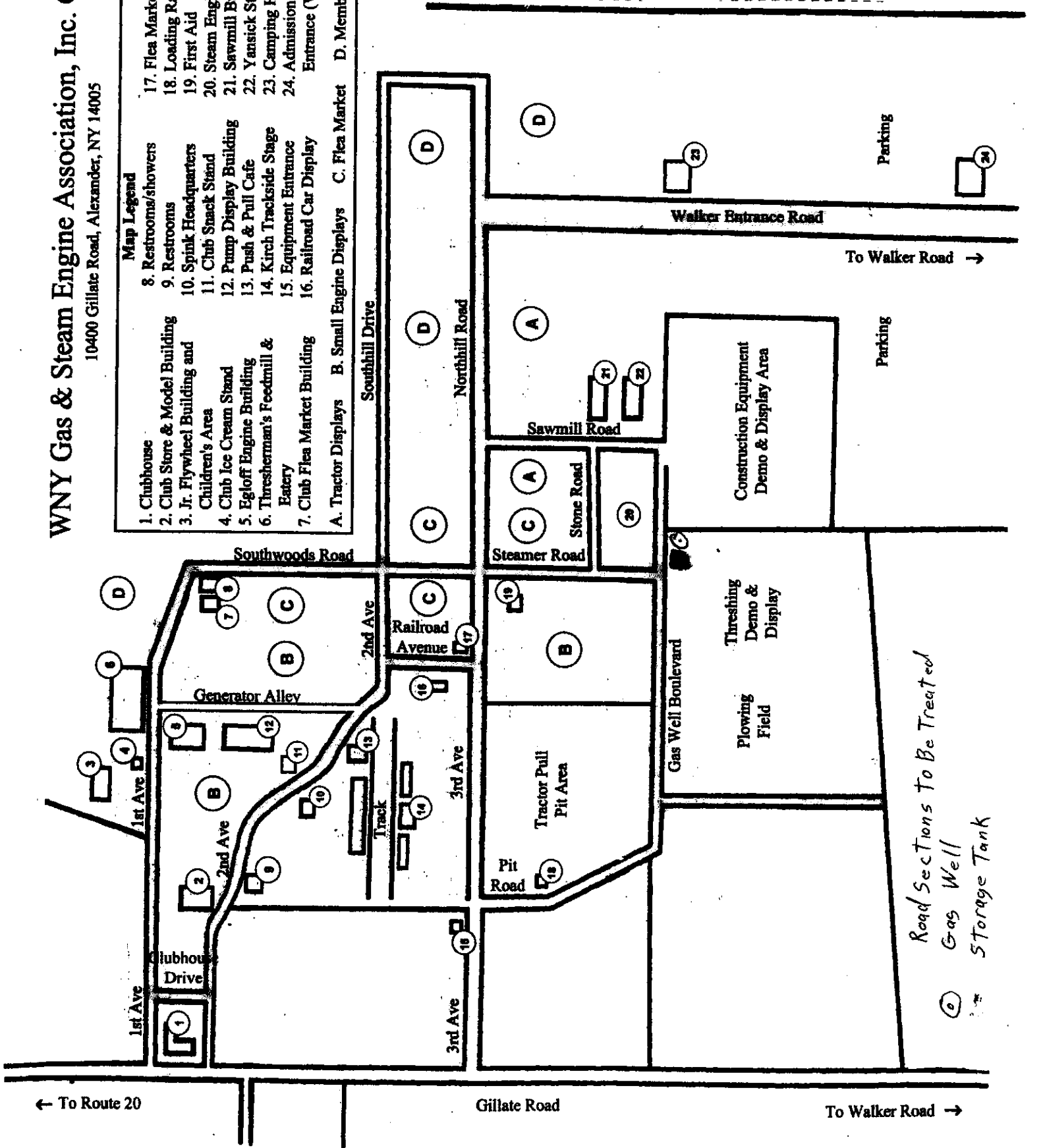
Western NY
Gas & Steam



WNY Gas & Steam Engine Association, Inc. Grounds

10400 Gillate Road, Alexander, NY 14005

- Map Legend**
- 1. Clubhouse
 - 2. Club Store & Model Building
 - 3. Jr. Flywheel Building and Children's Area
 - 4. Club Ice Cream Stand
 - 5. Egloff Engine Building
 - 6. Thresherman's Feedmill & Eatery
 - 7. Club Flea Market Building
 - 8. Restrooms/showers
 - 9. Restrooms
 - 10. Spink Headquarters
 - 11. Club Snack Stand
 - 12. Pump Display Building
 - 13. Push & Pull Cafe
 - 14. Kirch Trackside Stage
 - 15. Equipment Entrance
 - 16. Railroad Car Display
 - 17. Flea Market HQ
 - 18. Loading Ramp
 - 19. First Aid
 - 20. Steam Engine Area
 - 21. Sawmill Building
 - 22. Yansick Steam Building
 - 23. Camping HQ
 - 24. Admission - Main Entrance (Walker Road)
- A. Tractor Displays B. Small Engine Displays C. Flea Market D. Member Camping



○ Road Sections To Be Treated
 ● Gas Well
 □ Storage Tank

← To Route 20

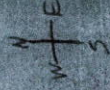
Gillate Road

To Walker Road →

Steam Show Property

Gas Wells

Road Sections To Be Treated



New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

MAY 30 2012

Mr. George Whitsell
Superintendent of Highways
Town of West Union
936 County Road 117
Rexville, NY 14877

Dear Mr. Whitsell:

Re: Brine Bud # **B052-12** – Dust Control and Road Stabilization

We have reviewed the information submitted in your April 3, 2012 petition for the proposed beneficial use of brine from the National Fuel Gas Beech Hill facility located in Whitesville, New York as part of your dust control and road stabilization system. We have also reviewed the analytical report provided by National Fuel Gas for brine from the above source dated March 6, 2012. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- All vehicles transporting and spreading brine must have a valid Part 364 permit.
- Dust control activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied within 50 feet of any stream, creek, lake or other body of water or in a manner that could cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be spread after daylight hours, during rain or when rain is imminent or on sections of road having a grade exceeding 10 percent.
- Brine is approved for road spreading use on the unpaved sections of Town of West Union roads as outlined on the submitted map. Brine may be applied a maximum of ten times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

New York State Department of Environmental Conservation

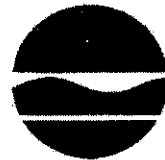
Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

MAY 17 2012

Mr. George Whitsell
Highway Superintendent
Town of West Union
936 County Road 117
Rexville, NY 14877

Dear Mr. Whitsell:

Re: Brine Bud

We have reviewed the information submitted in your April 3, 2012 petition for the proposed beneficial use of brine from the National Fuel Gas Beech Hill facility located in Wellsville, New York as part of your dust control and road stabilization system.

- All vehicles transporting and spreading brine must have a valid Part 364 permit.

Please renew your expired Part 364 permit by contacting Patti Leonardo at:

Registration and Permits Section
Bureau of Technical Support
Division of Environmental Remediation
NYS Department of Environmental Conservation
625 Broadway, 11th Floor
Albany, NY 12233-7020
518-402-9580
518-402-9577 Fax

For information on your BUD request, please call me at (518) 402-8706.

Sincerely,

Stephen Condon
Senior Engineering Geologist
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

Town of West Union

Apr 3, 2013

Town of West Union

936 Cty 117

Asheville Ny 14877

RECEIVED
NYSDEC

APR 06 2012

DIRECTOR'S OFFICE
DIV. OF MATERIALS MANAGEMENT

Telephone 607-225-4230

Superintendent George Whitell

National Fuel Gas
Duckhill Station
Whiteville Ny

We spread with Truck with Bar on back 8' long. This is control by air cylinders to open and shut from cab. of truck. We work up the road with brooder put Baine on and work it in with stone rake. Put second coat on work again with final Raking then Roll and put thin Coating. Road are work from 7:00 am to 4:30 pm on good drying days. The truck and Tank is washed down at night at end of the day. Do just Town roads.

George Whitell
Supt. of Highways

JP

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

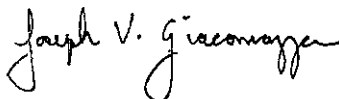
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-16320-1
Client Project/Site: Brine Priority Pollutant Analysis

For:
National Fuel Gas Supply Company
5955 New Taylor Road
Orchard Park, New York 14127

Attn: James Clark



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

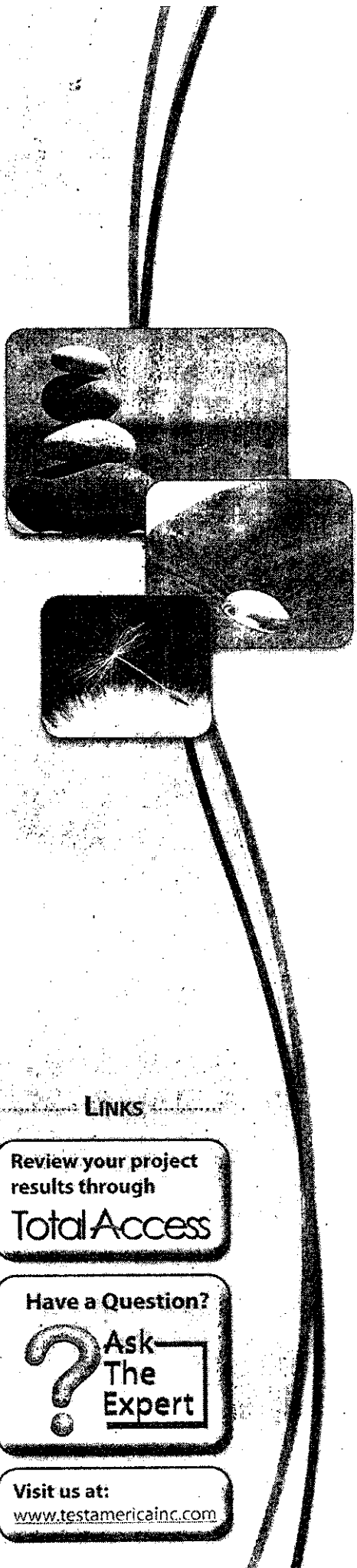




Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	6
Client Sample Results	7
Surrogate Summary	12
QC Sample Results	14
QC Association Summary	27
Lab Chronicle	31
Certification Summary	32
Method Summary	33
Sample Summary	34
Chain of Custody	35
Receipt Checklists	36

Definitions/Glossary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1



Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☐	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Job ID: 480-16320-1

Laboratory: TestAmerica Buffalo

4

Narrative

Job Narrative

480-16320-1

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

No analytical or quality issues were noted.

GC/MS Semi VOA

Method 625: The method blank for batch 52174 contained multiple analytes above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

GC Semi VOA

Method 608: The following sample: (LCS 480-52444/2-A), has Surrogate outside recovery limits, though the secondary surrogate is within limits.

Method 608: The following sample was diluted due to the nature of the sample matrix: BRINE (480-16320-1). Therefore, surrogate recoveries are not representative, and elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals

Method 200.7 Rev 4.4: The Method Blank for batch 480-52385 contained total sodium and calcium above the method detection limits. These target analyte concentrations were less than the reporting limits (RLs); therefore, re-extraction and/or re-analysis of sample BRINE (480-16320-1) was not performed.

Method 200.7 Rev 4.4: The following sample was diluted for total silver, lead and selenium due to the nature of the sample matrix: BRINE (480-16320-1). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following sample was diluted due to the abundance of target analyte total calcium & magnesium: BRINE (480-16320-1). Elevated reporting limits (RLs) are provided.

Method 200.7, 3005A: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: BRINE (480-16320-1). The reporting limits (RLs) have been adjusted proportionately.

Method 245.1, 7470A: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples: BRINE (480-16320-1). This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample was prepared and analyzed at a 5x dilution, which maintained the purple color during digestion.

No other analytical or quality issues were noted.

General Chemistry

Method SM 2540C: The method blank for batch 52430 contained total dissolved solids above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method SM 2540C: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: BRINE (480-16320-1). The reporting limits (RLs) have been adjusted proportionately.

Method 335.4, 9012A: The laboratory control sample (LCS) for batch 52395 exceeded control limits for the following analytes: Cyanide. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. BRINE (480-16320-1)

Case Narrative

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Job ID: 480-16320-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method 420.4: The method blank for batch 52948 contained phenol above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. BRINE (480-16320-1)

Method 9020: Breakthrough exceeded 10% for the following sample: BRINE (480-16320-1). Re-analysis was performed with concurring results. The data have been reported.

Method 9020: This method uses a dilution applied during the preparation portion of the procedure. The dilution factor (DF) presented on the final report represents only the analytical dilution, not the dilution factor applied in the preparation batch. BRINE (480-16320-1)

Method 9060: The method blank for batch 53807 contained TOC above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

Organic Prep

Method 625: Precipitate formed when sodium hydroxide was added.

No other analytical or quality issues were noted.

Detection Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	53		5.0	0.60	ug/L	1			624	Total/NA
Chloromethane	2.8	J	5.0	0.64	ug/L	1			624	Total/NA
Toluene	11		5.0	0.45	ug/L	1			624	Total/NA
Benzo[a]anthracene	0.30	J B	5.0	0.043	ug/L	1			625	Total/NA
Bis(2-ethylhexyl) phthalate	0.93	J B	9.9	0.85	ug/L	1			625	Total/NA
Chrysene	0.28	J B	5.0	0.035	ug/L	1			625	Total/NA
Naphthalene	0.32	J	5.0	0.079	ug/L	1			625	Total/NA
Pyrene	0.13	J	5.0	0.040	ug/L	1			625	Total/NA
2,4-Dichlorophenol	0.39	J	5.0	0.30	ug/L	1			625	Total/NA
2,4-Dimethylphenol	0.57	J	5.0	0.13	ug/L	1			625	Total/NA
Phenol	25		5.0	0.12	ug/L	1			625	Total/NA
Calcium	48800		50.0	10.0	mg/L	50			200.7 Rev 4.4	Total/NA
Chromium	0.0025	J	0.0080	0.0017	mg/L	1			200.7 Rev 4.4	Total/NA
Magnesium	5220		4.0	0.87	mg/L	10			200.7 Rev 4.4	Total/NA
Nickel	0.013	J	0.020	0.0025	mg/L	1			200.7 Rev 4.4	Total/NA
Sodium	6450	B	2.0	0.65	mg/L	1			200.7 Rev 4.4	Total/NA
Zinc	0.11		0.020	0.0034	mg/L	1			200.7 Rev 4.4	Total/NA
Oil & Grease	330		4.8	1.3	mg/L	1			1664A	Total/NA
Phenolics, Total Recoverable	0.069	B	0.050	0.025	mg/L	5			420.4	Total/NA
Halogens, Total Organic	39000		4000	1300	ug/L	1			9020	Total/NA
Total Organic Carbon	1.9		1.0	0.43	mg/L	1			9060	Total/NA
Total Dissolved Solids	217000		2000	800	mg/L	1			SM 2540C	Total/NA
Chloride	209000		6050	2780	mg/L	6050			SM 4500 Cl- E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	19300		1.00	1.00	umhos/cm	1			120.1	Total/NA
pH	4.81		0.100	0.100	SU	1			9040B	Total/NA

5

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

No Detections

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	53		5.0	0.60	ug/L			02/20/12 15:09	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 15:09	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 15:09	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 15:09	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 15:09	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 15:09	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 15:09	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 15:09	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 15:09	1
Chloromethane	2.8	J	5.0	0.64	ug/L			02/20/12 15:09	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 15:09	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 15:09	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 15:09	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 15:09	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 15:09	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 15:09	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 15:09	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 15:09	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 15:09	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 15:09	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 15:09	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 15:09	1
Toluene	11		5.0	0.45	ug/L			02/20/12 15:09	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 15:09	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 15:09	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 15:09	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 15:09	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 15:09	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 15:09	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 15:09	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 15:09	1



Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		72 - 130		02/20/12 15:09	1
4-Bromofluorobenzene (Surr)	98		69 - 121		02/20/12 15:09	1
Toluene-d8 (Surr)	99		70 - 123		02/20/12 15:09	1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.059	ug/L		02/20/12 10:21	02/21/12 12:15	1
Acenaphthylene	ND		5.0	0.034	ug/L		02/20/12 10:21	02/21/12 12:15	1
Anthracene	ND		5.0	0.052	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzidine	ND		79	2.5	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[a]anthracene	0.30	J B	5.0	0.043	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[a]pyrene	ND		5.0	0.057	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[b]fluoranthene	ND		5.0	0.061	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[g,h,i]perylene	ND		5.0	0.099	ug/L		02/20/12 10:21	02/21/12 12:15	1
Benzo[k]fluoranthene	ND		5.0	0.041	ug/L		02/20/12 10:21	02/21/12 12:15	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		02/20/12 10:21	02/21/12 12:15	1
Bis(2-chloroethoxy)methane	ND		5.0	0.084	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,2'-oxybis[1-chloropropane]	ND		5.0	0.085	ug/L		02/20/12 10:21	02/21/12 12:15	1

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:56

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.93	J B	9.9	0.85	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Chloronaphthalene	ND		5.0	0.067	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L		02/20/12 10:21	02/21/12 12:15	1
Chrysene	0.28	J B	5.0	0.035	ug/L		02/20/12 10:21	02/21/12 12:15	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		02/20/12 10:21	02/21/12 12:15	1
Di-n-butyl phthalate	ND		5.0	0.93	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2-Dichlorobenzene	ND		9.9	0.14	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,3-Dichlorobenzene	ND		9.9	0.068	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,4-Dichlorobenzene	ND		9.9	0.089	ug/L		02/20/12 10:21	02/21/12 12:15	1
3,3'-Dichlorobenzidine	ND		5.0	0.81	ug/L		02/20/12 10:21	02/21/12 12:15	1
Diethyl phthalate	ND		5.0	0.17	ug/L		02/20/12 10:21	02/21/12 12:15	1
Dimethyl phthalate	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,6-Dinitrotoluene	ND		5.0	0.71	ug/L		02/20/12 10:21	02/21/12 12:15	1
Di-n-octyl phthalate	ND		5.0	4.4	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2-Diphenylhydrazine	ND		9.9	0.062	ug/L		02/20/12 10:21	02/21/12 12:15	1
Fluoranthene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
Fluorene	ND		5.0	0.042	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorobenzene	ND		5.0	0.27	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorobutadiene	ND		5.0	0.61	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		02/20/12 10:21	02/21/12 12:15	1
Hexachloroethane	ND		5.0	0.48	ug/L		02/20/12 10:21	02/21/12 12:15	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.18	ug/L		02/20/12 10:21	02/21/12 12:15	1
Isophorone	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 12:15	1
Naphthalene	0.32	J	5.0	0.079	ug/L		02/20/12 10:21	02/21/12 12:15	1
Nitrobenzene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodimethylamine	ND		9.9	0.95	ug/L		02/20/12 10:21	02/21/12 12:15	1
N-Nitrosodiphenylamine	ND		5.0	0.39	ug/L		02/20/12 10:21	02/21/12 12:15	1
Phenanthrene	ND		5.0	0.070	ug/L		02/20/12 10:21	02/21/12 12:15	1
Pyrene	0.13	J	5.0	0.040	ug/L		02/20/12 10:21	02/21/12 12:15	1
1,2,4-Trichlorobenzene	ND		9.9	0.49	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Chloro-3-methylphenol	ND		5.0	0.55	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Chlorophenol	ND		5.0	0.15	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dichlorophenol	0.39	J	5.0	0.30	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dimethylphenol	0.57	J	5.0	0.13	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4-Dinitrophenol	ND		9.9	0.83	ug/L		02/20/12 10:21	02/21/12 12:15	1
4,6-Dinitro-2-methylphenol	ND		9.9	0.75	ug/L		02/20/12 10:21	02/21/12 12:15	1
2-Nitrophenol	ND		5.0	0.14	ug/L		02/20/12 10:21	02/21/12 12:15	1
4-Nitrophenol	ND		9.9	1.3	ug/L		02/20/12 10:21	02/21/12 12:15	1
Pentachlorophenol	ND		9.9	0.41	ug/L		02/20/12 10:21	02/21/12 12:15	1
Phenol	25		5.0	0.12	ug/L		02/20/12 10:21	02/21/12 12:15	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 12:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	112		52 - 151	02/20/12 10:21	02/21/12 12:15	1
2-Fluorobiphenyl	84		44 - 120	02/20/12 10:21	02/21/12 12:15	1
2-Fluorophenol	70		17 - 120	02/20/12 10:21	02/21/12 12:15	1
Nitrobenzene-d5	90		42 - 120	02/20/12 10:21	02/21/12 12:15	1

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5	86		10 - 120	02/20/12 10:21	02/21/12 12:15	1
p-Terphenyl-d14	26		22 - 125	02/20/12 10:21	02/21/12 12:15	1

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.25	0.032	ug/L		02/22/12 07:58	02/24/12 18:11	5
alpha-BHC	ND		0.25	0.032	ug/L		02/22/12 07:58	02/24/12 18:11	5
beta-BHC	ND		0.25	0.12	ug/L		02/22/12 07:58	02/24/12 18:11	5
delta-BHC	ND		0.25	0.049	ug/L		02/22/12 07:58	02/24/12 18:11	5
gamma-BHC (Lindane)	ND		0.25	0.029	ug/L		02/22/12 07:58	02/24/12 18:11	5
Chlordane (technical)	ND		2.5	0.14	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDD	ND		0.25	0.045	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDE	ND		0.25	0.057	ug/L		02/22/12 07:58	02/24/12 18:11	5
4,4'-DDT	ND		0.25	0.054	ug/L		02/22/12 07:58	02/24/12 18:11	5
Dieldrin	ND		0.25	0.048	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan I	ND		0.25	0.054	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan II	ND		0.25	0.059	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endosulfan sulfate	ND		0.25	0.077	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endrin	ND		0.25	0.068	ug/L		02/22/12 07:58	02/24/12 18:11	5
Endrin aldehyde	ND		0.25	0.080	ug/L		02/22/12 07:58	02/24/12 18:11	5
Heptachlor	ND		0.25	0.042	ug/L		02/22/12 07:58	02/24/12 18:11	5
Heptachlor epoxide	ND		0.25	0.026	ug/L		02/22/12 07:58	02/24/12 18:11	5
Toxaphene	ND		2.5	0.59	ug/L		02/22/12 07:58	02/24/12 18:11	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	15 - 125	02/22/12 07:58	02/24/12 18:11	5
Tetrachloro-m-xylene	0	X	36 - 121	02/22/12 07:58	02/24/12 18:11	5

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1221	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1232	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1242	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1248	ND		0.058	0.037	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1254	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1260	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1262	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1
PCB-1268	ND		0.058	0.030	ug/L		02/21/12 07:54	02/21/12 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		10 - 158	02/21/12 07:54	02/21/12 18:28	1
Tetrachloro-m-xylene	90		18 - 146	02/21/12 07:54	02/21/12 18:28	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.040	0.014	mg/L		02/22/12 08:15	02/22/12 18:17	1
Arsenic	ND		0.020	0.011	mg/L		02/22/12 08:15	02/22/12 18:17	1
Beryllium	ND		0.0040	0.00060	mg/L		02/22/12 08:15	02/22/12 18:17	1
Cadmium	ND		0.0020	0.00066	mg/L		02/22/12 08:15	02/22/12 18:17	1
Calcium	48800		50.0	10.0	mg/L		02/22/12 08:15	02/24/12 23:18	50
Chromium	0.0025	J	0.0080	0.0017	mg/L		02/22/12 08:15	02/22/12 18:17	1

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.020	0.0030	mg/L		02/22/12 08:15	02/22/12 18:17	1
Lead	ND		0.50	0.30	mg/L		02/22/12 08:15	02/29/12 22:49	50
Magnesium	5220		4.0	0.87	mg/L		02/22/12 08:15	02/24/12 23:11	10
Nickel	0.013	J	0.020	0.0025	mg/L		02/22/12 08:15	02/22/12 18:17	1
Selenium	ND		0.30	0.17	mg/L		02/22/12 08:15	02/24/12 23:11	10
Silver	ND		0.060	0.034	mg/L		02/22/12 08:15	02/24/12 23:11	10
Sodium	6450	B	2.0	0.65	mg/L		02/22/12 08:15	02/22/12 18:17	1
Thallium	ND		0.040	0.020	mg/L		02/22/12 08:15	02/22/12 18:17	1
Zinc	0.11		0.020	0.0034	mg/L		02/22/12 08:15	02/22/12 18:17	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0010	0.00060	mg/L		02/20/12 09:05	02/20/12 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	330		4.8	1.3	mg/L		02/21/12 15:10	02/21/12 15:18	1
Cyanide, Total	ND	*	0.010	0.0050	mg/L		02/20/12 17:00	02/21/12 15:00	1
Phenolics, Total Recoverable	0.069	B	0.050	0.025	mg/L		02/20/12 19:46	02/25/12 10:40	5
Halogens, Total Organic	39000		4000	1300	ug/L			02/27/12 07:29	1
Total Organic Carbon	1.9		1.0	0.43	mg/L			03/03/12 18:28	1
Total Dissolved Solids	217000		2000	800	mg/L			02/22/12 19:10	1
Chloride	209000		6050	2780	mg/L			02/20/12 23:36	6050
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	19300		1.00	1.00	umhos/cm			02/21/12 09:56	1
pH	4.81		0.100	0.100	SU			02/17/12 19:28	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	0.60	ug/L			02/20/12 15:32	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 15:32	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 15:32	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 15:32	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 15:32	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 15:32	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 15:32	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 15:32	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 15:32	1
Chloromethane	ND		5.0	0.64	ug/L			02/20/12 15:32	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 15:32	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 15:32	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 15:32	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 15:32	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 15:32	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 15:32	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 15:32	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 15:32	1

Client Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 15:32	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 15:32	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 15:32	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 15:32	1
Toluene	ND		5.0	0.45	ug/L			02/20/12 15:32	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 15:32	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 15:32	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 15:32	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 15:32	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 15:32	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 15:32	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 15:32	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		72 - 130		02/20/12 15:32	1
4-Bromofluorobenzene (Surr)	100		69 - 121		02/20/12 15:32	1
Toluene-d8 (Surr)	100		70 - 123		02/20/12 15:32	1

Surrogate Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (72-130)	BFB (69-121)	TOL (70-123)
480-16320-1	BRINE	105	98	99
480-16320-2	TRIP BLANK	97	100	100
LCS 480-52148/4	Lab Control Sample	95	101	100
MB 480-52148/5	Method Blank	100	99	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 TOL = Toluene-d8 (Surr)

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBP (52-151)	FBP (44-120)	2FP (17-120)	NBZ (42-120)	PHL (10-120)	TPH (22-125)
480-16320-1	BRINE	112	84	70	90	86	26
LCS 480-52174/2-A	Lab Control Sample	109	85	54	91	41	90
LCSD 480-52174/3-A	Lab Control Sample Dup	117	90	54	93	42	96
MB 480-52174/1-A	Method Blank	109	68	40	73	31	87

Surrogate Legend

TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 PHL = Phenol-d5
 TPH = p-Terphenyl-d14

Method: 608 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (15-125)	TCX1 (36-121)
480-16320-1	BRINE	0 X	0 X
LCS 480-52444/2-A	Lab Control Sample	-1 X	83
LCSD 480-52444/3-A	Lab Control Sample Dup	15	76
MB 480-52444/1-A	Method Blank	18	84

Surrogate Legend

DCB = DCB Decachlorobiphenyl
 TCX = Tetrachloro-m-xylene

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-158)	TCX2 (18-146)
480-16320-1	BRINE	62	90
LCS 480-52270/2-A	Lab Control Sample	75	112

Surrogate Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-158)	TCX2 (18-146)
LCSD 480-52270/3-A	Lab Control Sample Dup	70	110
MB 480-52270/1-A	Method Blank	73	109

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene



QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-52148/5
 Matrix: Water
 Analysis Batch: 52148

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		5.0	0.60	ug/L			02/20/12 12:46	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/20/12 12:46	1
Bromoform	ND		5.0	0.47	ug/L			02/20/12 12:46	1
Bromomethane	ND		5.0	1.2	ug/L			02/20/12 12:46	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/20/12 12:46	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/20/12 12:46	1
Chloroethane	ND		5.0	0.87	ug/L			02/20/12 12:46	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/20/12 12:46	1
Chloroform	ND		5.0	0.54	ug/L			02/20/12 12:46	1
Chloromethane	ND		5.0	0.64	ug/L			02/20/12 12:46	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			02/20/12 12:46	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/20/12 12:46	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/20/12 12:46	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/20/12 12:46	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			02/20/12 12:46	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/20/12 12:46	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/20/12 12:46	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/20/12 12:46	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/20/12 12:46	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/20/12 12:46	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/20/12 12:46	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/20/12 12:46	1
Toluene	ND		5.0	0.45	ug/L			02/20/12 12:46	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/20/12 12:46	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/20/12 12:46	1
Trichloroethene	ND		5.0	0.60	ug/L			02/20/12 12:46	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/20/12 12:46	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/20/12 12:46	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/20/12 12:46	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/20/12 12:46	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/20/12 12:46	1

8

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		02/20/12 12:46	1
4-Bromofluorobenzene (Surr)	99		69 - 121		02/20/12 12:46	1
Toluene-d8 (Surr)	98		70 - 123		02/20/12 12:46	1

Lab Sample ID: LCS 480-52148/4
 Matrix: Water
 Analysis Batch: 52148

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	20.0	20.1		ug/L		101	64 - 136
Bromodichloromethane	20.0	19.5		ug/L		98	66 - 135
Bromoform	20.0	18.0		ug/L		90	71 - 129
Bromomethane	20.0	22.9		ug/L		115	14 - 186
Carbon tetrachloride	20.0	19.9		ug/L		100	73 - 127
Chlorobenzene	20.0	19.8		ug/L		99	66 - 134
Chloroethane	20.0	21.8		ug/L		109	38 - 162

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-52148/4

Matrix: Water

Analysis Batch: 52148

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
2-Chloroethyl vinyl ether	100	104		ug/L		104	1 - 224
Chloroform	20.0	20.3		ug/L		102	68 - 133
Chloromethane	20.0	20.8		ug/L		104	1 - 204
Chlorodibromomethane	20.0	19.0		ug/L		95	68 - 133
1,1-Dichloroethane	20.0	20.1		ug/L		101	73 - 128
1,2-Dichloroethane	20.0	19.9		ug/L		100	68 - 132
1,1-Dichloroethene	20.0	18.2		ug/L		91	51 - 150
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	72 - 133
1,2-Dichloropropane	20.0	20.6		ug/L		103	34 - 166
cis-1,3-Dichloropropene	20.0	20.1		ug/L		101	24 - 176
trans-1,3-Dichloropropene	20.0	19.8		ug/L		99	50 - 150
Ethylbenzene	20.0	20.3		ug/L		102	59 - 141
Methylene Chloride	20.0	19.8		ug/L		99	61 - 140
1,1,1,2-Tetrachloroethane	20.0	20.4		ug/L		102	61 - 140
Tetrachloroethene	20.0	20.0		ug/L		100	74 - 127
Toluene	20.0	20.0		ug/L		100	75 - 126
1,1,1-Trichloroethane	20.0	20.9		ug/L		105	75 - 125
1,1,2-Trichloroethane	20.0	19.5		ug/L		98	71 - 129
Trichloroethene	20.0	20.2		ug/L		101	67 - 134
Vinyl chloride	20.0	21.3		ug/L		107	4 - 196
1,2-Dichlorobenzene	20.0	19.3		ug/L		97	63 - 137
1,3-Dichlorobenzene	20.0	19.6		ug/L		98	73 - 127
1,4-Dichlorobenzene	20.0	19.1		ug/L		96	63 - 137
Trichlorofluoromethane	20.0	23.5		ug/L		118	48 - 152

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	95		72 - 130
4-Bromofluorobenzene (Surr)	101		69 - 121
Toluene-d8 (Surr)	100		70 - 123

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-52174/1-A

Matrix: Water

Analysis Batch: 52316

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 52174

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		5.0	0.060	ug/L		02/20/12 10:21	02/21/12 11:03	1
Acenaphthylene	ND		5.0	0.034	ug/L		02/20/12 10:21	02/21/12 11:03	1
Anthracene	ND		5.0	0.052	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzidine	ND		80	2.5	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[a]anthracene	0.216	J	5.0	0.043	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[a]pyrene	ND		5.0	0.058	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[b]fluoranthene	ND		5.0	0.062	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[g,h,i]perylene	ND		5.0	0.10	ug/L		02/20/12 10:21	02/21/12 11:03	1
Benzo[k]fluoranthene	ND		5.0	0.042	ug/L		02/20/12 10:21	02/21/12 11:03	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		02/20/12 10:21	02/21/12 11:03	1
Bis(2-chloroethoxy)methane	ND		5.0	0.085	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,2'-oxybis[1-chloropropane]	ND		5.0	0.086	ug/L		02/20/12 10:21	02/21/12 11:03	1

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-52174/1-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52174

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bis(2-ethylhexyl) phthalate	1.02	J	10	0.86	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 11:03	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		02/20/12 10:21	02/21/12 11:03	1
2-Chloronaphthalene	ND		5.0	0.068	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L		02/20/12 10:21	02/21/12 11:03	1
Chrysene	0.165	J	5.0	0.036	ug/L		02/20/12 10:21	02/21/12 11:03	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		02/20/12 10:21	02/21/12 11:03	1
Di-n-butyl phthalate	ND		5.0	0.94	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,2-Dichlorobenzene	ND		10	0.15	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,3-Dichlorobenzene	ND		10	0.069	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,4-Dichlorobenzene	ND		10	0.090	ug/L		02/20/12 10:21	02/21/12 11:03	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		02/20/12 10:21	02/21/12 11:03	1
Diethyl phthalate	ND		5.0	0.17	ug/L		02/20/12 10:21	02/21/12 11:03	1
Dimethyl phthalate	ND		5.0	0.17	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,6-Dinitrotoluene	ND		5.0	0.72	ug/L		02/20/12 10:21	02/21/12 11:03	1
Di-n-octyl phthalate	ND		5.0	4.5	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,2-Diphenylhydrazine	ND		10	0.063	ug/L		02/20/12 10:21	02/21/12 11:03	1
Fluoranthene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 11:03	1
Fluorene	ND		5.0	0.043	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachlorobenzene	ND		5.0	0.28	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachlorobutadiene	ND		5.0	0.62	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		02/20/12 10:21	02/21/12 11:03	1
Hexachloroethane	ND		5.0	0.48	ug/L		02/20/12 10:21	02/21/12 11:03	1
Indeno[1,2,3-cd]pyrene	0.211	J	5.0	0.19	ug/L		02/20/12 10:21	02/21/12 11:03	1
Isophorone	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 11:03	1
Naphthalene	ND		5.0	0.080	ug/L		02/20/12 10:21	02/21/12 11:03	1
Nitrobenzene	ND		5.0	0.11	ug/L		02/20/12 10:21	02/21/12 11:03	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 11:03	1
N-Nitrosodimethylamine	ND		10	0.96	ug/L		02/20/12 10:21	02/21/12 11:03	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		02/20/12 10:21	02/21/12 11:03	1
Phenanthrene	ND		5.0	0.071	ug/L		02/20/12 10:21	02/21/12 11:03	1
Pyrene	ND		5.0	0.041	ug/L		02/20/12 10:21	02/21/12 11:03	1
1,2,4-Trichlorobenzene	ND		10	0.49	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Chloro-3-methylphenol	ND		5.0	0.56	ug/L		02/20/12 10:21	02/21/12 11:03	1
2-Chlorophenol	ND		5.0	0.16	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dichlorophenol	ND		5.0	0.30	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dimethylphenol	ND		5.0	0.13	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4-Dinitrophenol	ND		10	0.84	ug/L		02/20/12 10:21	02/21/12 11:03	1
4,6-Dinitro-2-methylphenol	ND		10	0.76	ug/L		02/20/12 10:21	02/21/12 11:03	1
2-Nitrophenol	ND		5.0	0.14	ug/L		02/20/12 10:21	02/21/12 11:03	1
4-Nitrophenol	ND		10	1.3	ug/L		02/20/12 10:21	02/21/12 11:03	1
Pentachlorophenol	ND		10	0.41	ug/L		02/20/12 10:21	02/21/12 11:03	1
Phenol	ND		5.0	0.12	ug/L		02/20/12 10:21	02/21/12 11:03	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		02/20/12 10:21	02/21/12 11:03	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	109		52 - 151	02/20/12 10:21	02/21/12 11:03	1
2-Fluorobiphenyl	68		44 - 120	02/20/12 10:21	02/21/12 11:03	1

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-52174/1-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52174

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	40		17 - 120	02/20/12 10:21	02/21/12 11:03	1
Nitrobenzene-d5	73		42 - 120	02/20/12 10:21	02/21/12 11:03	1
Phenol-d5	31		10 - 120	02/20/12 10:21	02/21/12 11:03	1
p-Terphenyl-d14	87		22 - 125	02/20/12 10:21	02/21/12 11:03	1



Lab Sample ID: LCS 480-52174/2-A
 Matrix: Water
 Analysis Batch: 52316

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52174

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Acenaphthene	100	89.4		ug/L		89	47 - 145
Acenaphthylene	100	90.4		ug/L		90	33 - 145
Anthracene	100	97.5		ug/L		98	27 - 133
Benzo[a]anthracene	100	98.9		ug/L		99	33 - 143
Benzo[a]pyrene	100	99.5		ug/L		100	17 - 163
Benzo[b]fluoranthene	100	99.1		ug/L		99	24 - 159
Benzo[g,h,i]perylene	100	102		ug/L		102	1 - 219
Benzo[k]fluoranthene	100	93.1		ug/L		93	11 - 162
Bis(2-chloroethyl)ether	100	80.6		ug/L		81	12 - 158
Bis(2-chloroethoxy)methane	100	86.8		ug/L		87	33 - 184
2,2'-oxybis[1-chloropropane]	100	76.3		ug/L		76	36 - 166
Bis(2-ethylhexyl) phthalate	100	107		ug/L		107	8 - 158
4-Bromophenyl phenyl ether	100	101		ug/L		101	53 - 127
Butyl benzyl phthalate	100	112		ug/L		112	1 - 152
2-Chloronaphthalene	100	81.0		ug/L		81	60 - 118
4-Chlorophenyl phenyl ether	100	92.5		ug/L		93	25 - 158
Chrysene	100	94.6		ug/L		95	17 - 168
Dibenz(a,h)anthracene	100	97.5		ug/L		98	1 - 227
Di-n-butyl phthalate	100	108		ug/L		108	1 - 118
1,2-Dichlorobenzene	100	55.2		ug/L		55	32 - 129
1,3-Dichlorobenzene	100	52.3		ug/L		52	1 - 172
1,4-Dichlorobenzene	100	52.8		ug/L		53	20 - 124
3,3'-Dichlorobenzidine	100	83.3		ug/L		83	1 - 262
Diethyl phthalate	100	105		ug/L		105	1 - 114
Dimethyl phthalate	100	99.9		ug/L		100	1 - 112
2,4-Dinitrotoluene	100	108		ug/L		108	39 - 139
2,6-Dinitrotoluene	100	111		ug/L		111	50 - 158
Di-n-octyl phthalate	100	115		ug/L		115	4 - 146
Fluoranthene	100	100		ug/L		100	26 - 137
Fluorene	100	94.7		ug/L		95	59 - 121
Hexachlorobenzene	100	99.3		ug/L		99	1 - 152
Hexachlorocyclopentadiene	100	62.4		ug/L		62	5 - 120
Hexachloroethane	100	50.2		ug/L		50	40 - 113
Indeno[1,2,3-cd]pyrene	100	95.6		ug/L		96	1 - 171
Isophorone	100	92.1		ug/L		92	21 - 196
Naphthalene	100	67.7		ug/L		68	21 - 133
Nitrobenzene	100	87.0		ug/L		87	35 - 180
N-Nitrosodi-n-propylamine	100	93.7		ug/L		94	1 - 230
N-Nitrosodiphenylamine	100	103		ug/L		103	54 - 125

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-52174/2-A

Matrix: Water

Analysis Batch: 52316

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 52174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
Phenanthrene	100	96.0		ug/L		96	54 - 120	
Pyrene	100	95.4		ug/L		95	52 - 115	
1,2,4-Trichlorobenzene	100	57.2		ug/L		57	44 - 142	
4-Chloro-3-methylphenol	100	100		ug/L		100	22 - 147	
2-Chlorophenol	100	82.5		ug/L		83	23 - 134	
2,4-Dichlorophenol	100	91.2		ug/L		91	39 - 135	
2,4-Dimethylphenol	100	93.9		ug/L		94	32 - 119	
2,4-Dinitrophenol	100	89.9		ug/L		90	1 - 191	
4,6-Dinitro-2-methylphenol	100	103		ug/L		103	1 - 181	
2-Nitrophenol	100	92.1		ug/L		92	29 - 182	
4-Nitrophenol	100	62.8		ug/L		63	1 - 132	
Pentachlorophenol	100	107		ug/L		107	14 - 176	
Phenol	100	43.8		ug/L		44	5 - 112	
2,4,6-Trichlorophenol	100	103		ug/L		103	37 - 144	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	109		52 - 151
2-Fluorobiphenyl	85		44 - 120
2-Fluorophenol	54		17 - 120
Nitrobenzene-d5	91		42 - 120
Phenol-d5	41		10 - 120
p-Terphenyl-d14	90		22 - 125

Lab Sample ID: LCSD 480-52174/3-A

Matrix: Water

Analysis Batch: 52316

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 52174

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	100	95.0		ug/L		95	47 - 145	6	25
Acenaphthylene	100	96.4		ug/L		96	33 - 145	6	22
Anthracene	100	104		ug/L		104	27 - 133	6	15
Benzo[a]anthracene	100	105		ug/L		105	33 - 143	6	15
Benzo[a]pyrene	100	107		ug/L		107	17 - 163	8	15
Benzo[b]fluoranthene	100	105		ug/L		105	24 - 159	6	17
Benzo[g,h,i]perylene	100	109		ug/L		109	1 - 219	6	19
Benzo[k]fluoranthene	100	101		ug/L		101	11 - 162	9	19
Bis(2-chloroethyl)ether	100	83.6		ug/L		84	12 - 158	4	33
Bis(2-chloroethoxy)methane	100	90.7		ug/L		91	33 - 184	4	23
2,2'-oxybis[1-chloropropane]	100	79.8		ug/L		80	36 - 166	4	36
Bis(2-ethylhexyl) phthalate	100	115		ug/L		115	8 - 158	6	15
4-Bromophenyl phenyl ether	100	107		ug/L		107	53 - 127	6	16
Butyl benzyl phthalate	100	119		ug/L		119	1 - 152	6	15
2-Chloronaphthalene	100	86.5		ug/L		87	60 - 118	7	30
4-Chlorophenyl phenyl ether	100	99.0		ug/L		99	25 - 158	7	15
Chrysene	100	100		ug/L		100	17 - 168	6	15
Dibenz(a,h)anthracene	100	104		ug/L		104	1 - 227	7	18
Di-n-butyl phthalate	100	115		ug/L		115	1 - 118	6	15
1,2-Dichlorobenzene	100	56.1		ug/L		56	32 - 129	2	38
1,3-Dichlorobenzene	100	53.1		ug/L		53	1 - 172	2	37

8

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-52174/3-A

Matrix: Water

Analysis Batch: 52316

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 52174

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	100	53.6		ug/L		54	20 - 124	2	40
3,3'-Dichlorobenzidine	100	87.0		ug/L		87	1 - 262	4	31
Diethyl phthalate	100	112		ug/L		112	1 - 114	6	15
Dimethyl phthalate	100	107		ug/L		107	1 - 112	6	15
2,4-Dinitrotoluene	100	116		ug/L		116	39 - 139	7	20
2,6-Dinitrotoluene	100	119		ug/L		119	50 - 158	7	17
Di-n-octyl phthalate	100	123		ug/L		123	4 - 146	6	15
Fluoranthene	100	107		ug/L		107	26 - 137	6	15
Fluorene	100	101		ug/L		101	59 - 121	7	18
Hexachlorobenzene	100	105		ug/L		105	1 - 152	5	15
Hexachlorocyclopentadiene	100	65.7		ug/L		66	5 - 120	5	50
Hexachloroethane	100	51.2		ug/L		51	40 - 113	2	43
Indeno[1,2,3-cd]pyrene	100	102		ug/L		102	1 - 171	7	17
Isophorone	100	96.3		ug/L		96	21 - 196	4	21
Naphthalene	100	70.1		ug/L		70	21 - 133	3	31
Nitrobenzene	100	90.6		ug/L		91	35 - 180	4	27
N-Nitrosodi-n-propylamine	100	101		ug/L		101	1 - 230	7	23
N-Nitrosodiphenylamine	100	111		ug/L		111	54 - 125	7	15
Phenanthrene	100	101		ug/L		101	54 - 120	5	16
Pyrene	100	101		ug/L		101	52 - 115	5	15
1,2,4-Trichlorobenzene	100	59.2		ug/L		59	44 - 142	3	34
4-Chloro-3-methylphenol	100	106		ug/L		106	22 - 147	5	16
2-Chlorophenol	100	85.2		ug/L		85	23 - 134	3	26
2,4-Dichlorophenol	100	93.8		ug/L		94	39 - 135	3	23
2,4-Dimethylphenol	100	95.0		ug/L		95	32 - 119	1	18
2,4-Dinitrophenol	100	94.2		ug/L		94	1 - 191	5	29
4,6-Dinitro-2-methylphenol	100	111		ug/L		111	1 - 181	7	30
2-Nitrophenol	100	96.2		ug/L		96	29 - 182	4	28
4-Nitrophenol	100	66.1		ug/L		66	1 - 132	5	24
Pentachlorophenol	100	113		ug/L		113	14 - 176	6	21
Phenol	100	45.3		ug/L		45	5 - 112	3	36
2,4,6-Trichlorophenol	100	109		ug/L		109	37 - 144	6	20



Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	117		52 - 151
2-Fluorobiphenyl	90		44 - 120
2-Fluorophenol	54		17 - 120
Nitrobenzene-d5	93		42 - 120
Phenol-d5	42		10 - 120
p-Terphenyl-d14	96		22 - 125

Method: 608 - Organochlorine Pesticides in Water

Lab Sample ID: MB 480-52444/1-A

Matrix: Water

Analysis Batch: 52783

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 52444

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin	ND		0.050	0.0066	ug/L		02/22/12 07:58	02/24/12 13:24	1

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 480-52444/1-A
 Matrix: Water
 Analysis Batch: 52783

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52444

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
alpha-BHC	ND		0.050	0.0066	ug/L		02/22/12 07:58	02/24/12 13:24	1
beta-BHC	ND		0.050	0.025	ug/L		02/22/12 07:58	02/24/12 13:24	1
delta-BHC	ND		0.050	0.010	ug/L		02/22/12 07:58	02/24/12 13:24	1
gamma-BHC (Lindane)	ND		0.050	0.0060	ug/L		02/22/12 07:58	02/24/12 13:24	1
Chlordane (technical)	ND		0.50	0.029	ug/L		02/22/12 07:58	02/24/12 13:24	1
4,4'-DDD	ND		0.050	0.0092	ug/L		02/22/12 07:58	02/24/12 13:24	1
4,4'-DDE	ND		0.050	0.012	ug/L		02/22/12 07:58	02/24/12 13:24	1
4,4'-DDT	ND		0.050	0.011	ug/L		02/22/12 07:58	02/24/12 13:24	1
Dieldrin	ND		0.050	0.0098	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endosulfan I	ND		0.050	0.011	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endosulfan II	ND		0.050	0.012	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endrin	ND		0.050	0.014	ug/L		02/22/12 07:58	02/24/12 13:24	1
Endrin aldehyde	ND		0.050	0.016	ug/L		02/22/12 07:58	02/24/12 13:24	1
Heptachlor	ND		0.050	0.0085	ug/L		02/22/12 07:58	02/24/12 13:24	1
Heptachlor epoxide	ND		0.050	0.0053	ug/L		02/22/12 07:58	02/24/12 13:24	1
Toxaphene	ND		0.50	0.12	ug/L		02/22/12 07:58	02/24/12 13:24	1

8

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	18		15 - 125	02/22/12 07:58	02/24/12 13:24	1
Tetrachloro-m-xylene	84		36 - 121	02/22/12 07:58	02/24/12 13:24	1

Lab Sample ID: LCS 480-52444/2-A
 Matrix: Water
 Analysis Batch: 52783

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52444

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Aldrin	0.500	0.350		ug/L		70		35 - 120
alpha-BHC	0.500	0.403		ug/L		81		39 - 121
beta-BHC	0.500	0.412		ug/L		82		39 - 138
delta-BHC	0.500	0.404		ug/L		81		40 - 121
gamma-BHC (Lindane)	0.500	0.389		ug/L		80		54 - 134
4,4'-DDD	0.500	0.394		ug/L		79		54 - 142
4,4'-DDE	0.500	0.344		ug/L		69		48 - 128
4,4'-DDT	0.500	0.363		ug/L		73		53 - 136
Dieldrin	0.500	0.397		ug/L		79		52 - 132
Endosulfan I	0.500	0.370		ug/L		74		47 - 126
Endosulfan II	0.500	0.395		ug/L		79		48 - 134
Endosulfan sulfate	0.500	0.438		ug/L		88		57 - 140
Endrin	0.500	0.434		ug/L		87		54 - 135
Endrin aldehyde	0.500	0.409		ug/L		82		55 - 132
Heptachlor	0.500	0.395		ug/L		79		42 - 126
Heptachlor epoxide	0.500	0.399		ug/L		80		53 - 134

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	-1	X	15 - 125
Tetrachloro-m-xylene	83		36 - 121

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 480-52444/3-A
 Matrix: Water
 Analysis Batch: 52783

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 52444

Analyte	Spike Added	LCSD		Unit	D	%Rec.	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Aldrin	0.500	0.326		ug/L		65	35 - 120	7	50
alpha-BHC	0.500	0.383		ug/L		77	39 - 121	5	50
beta-BHC	0.500	0.388		ug/L		78	39 - 138	6	50
delta-BHC	0.500	0.385		ug/L		77	40 - 121	5	50
gamma-BHC (Lindane)	0.500	0.374		ug/L		75	54 - 134	6	50
4,4'-DDD	0.500	0.380		ug/L		76	54 - 142	4	50
4,4'-DDE	0.500	0.363		ug/L		73	48 - 128	5	50
4,4'-DDT	0.500	0.371		ug/L		74	53 - 136	2	50
Dieldrin	0.500	0.376		ug/L		75	52 - 132	5	50
Endosulfan I	0.500	0.353		ug/L		71	47 - 126	5	50
Endosulfan II	0.500	0.381		ug/L		76	48 - 134	4	50
Endosulfan sulfate	0.500	0.413		ug/L		83	57 - 140	6	50
Endrin	0.500	0.412		ug/L		82	54 - 135	5	50
Endrin aldehyde	0.500	0.390		ug/L		78	55 - 132	5	50
Heptachlor	0.500	0.369		ug/L		74	42 - 126	7	50
Heptachlor epoxide	0.500	0.377		ug/L		75	53 - 134	6	50

8

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	15		15 - 125
Tetrachloro-m-xylene	76		36 - 121

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 480-52270/1-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52270

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1221	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1232	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1242	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1248	ND		0.060	0.038	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1254	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1260	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1262	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1
PCB-1268	ND		0.060	0.031	ug/L		02/21/12 07:54	02/21/12 16:57	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	73		10 - 158	02/21/12 07:54	02/21/12 16:57	1
Tetrachloro-m-xylene	109		18 - 146	02/21/12 07:54	02/21/12 16:57	1

Lab Sample ID: LCS 480-52270/2-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52270

Analyte	Spike Added	LCS		Unit	D	%Rec.	%Rec. Limits
		Result	Qualifier				
PCB-1016	1.00	0.843		ug/L		84	44 - 154
PCB-1260	1.00	0.840		ug/L		84	34 - 150

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 480-52270/2-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52270

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	75		10 - 158
Tetrachloro-m-xylene	112		18 - 146

Lab Sample ID: LCSD 480-52270/3-A
 Matrix: Water
 Analysis Batch: 52404

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 52270

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
PCB-1016	1.00	0.936		ug/L		94	44 - 154	10	30
PCB-1260	1.00	0.832		ug/L		83	34 - 150	1	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	70		10 - 158
Tetrachloro-m-xylene	110		18 - 146

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-52385/1-A
 Matrix: Water
 Analysis Batch: 52637

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52385

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		0.020	0.0068	mg/L		02/22/12 08:15	02/22/12 16:55	1
Arsenic	ND		0.010	0.0056	mg/L		02/22/12 08:15	02/22/12 16:55	1
Beryllium	ND		0.0020	0.00030	mg/L		02/22/12 08:15	02/22/12 16:55	1
Cadmium	ND		0.0010	0.00033	mg/L		02/22/12 08:15	02/22/12 16:55	1
Calcium	0.203	J	0.50	0.10	mg/L		02/22/12 08:15	02/22/12 16:55	1
Chromium	ND		0.0040	0.00087	mg/L		02/22/12 08:15	02/22/12 16:55	1
Copper	ND		0.010	0.0015	mg/L		02/22/12 08:15	02/22/12 16:55	1
Lead	ND		0.0050	0.0030	mg/L		02/22/12 08:15	02/22/12 16:55	1
Magnesium	ND		0.20	0.043	mg/L		02/22/12 08:15	02/22/12 16:55	1
Nickel	ND		0.010	0.0013	mg/L		02/22/12 08:15	02/22/12 16:55	1
Selenium	ND		0.015	0.0087	mg/L		02/22/12 08:15	02/22/12 16:55	1
Silver	ND		0.0030	0.0017	mg/L		02/22/12 08:15	02/22/12 16:55	1
Sodium	0.877	J	1.0	0.32	mg/L		02/22/12 08:15	02/22/12 16:55	1
Thallium	ND		0.020	0.010	mg/L		02/22/12 08:15	02/22/12 16:55	1
Zinc	ND		0.010	0.0017	mg/L		02/22/12 08:15	02/22/12 16:55	1

Lab Sample ID: LCS 480-52385/2-A
 Matrix: Water
 Analysis Batch: 52637

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52385

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	0.200	0.201		mg/L		101	85 - 115
Arsenic	0.200	0.204		mg/L		102	85 - 115
Beryllium	0.200	0.203		mg/L		102	85 - 115
Cadmium	0.200	0.207		mg/L		103	85 - 115
Calcium	10.0	10.05		mg/L		100	85 - 115
Chromium	0.200	0.206		mg/L		103	85 - 115



QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-52385/2-A
 Matrix: Water
 Analysis Batch: 52637

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52385

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Copper	0.200	0.208		mg/L		104	85 - 115
Lead	0.200	0.202		mg/L		101	85 - 115
Magnesium	10.0	9.84		mg/L		98	85 - 115
Nickel	0.200	0.198		mg/L		99	85 - 115
Selenium	0.200	0.205		mg/L		103	85 - 115
Silver	0.0500	0.0492		mg/L		98	85 - 115
Sodium	10.0	10.40		mg/L		104	85 - 115
Thallium	0.200	0.210		mg/L		105	85 - 115
Zinc	0.200	0.200		mg/L		100	85 - 115



Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-52143/1-A
 Matrix: Water
 Analysis Batch: 52218

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52143

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020	0.00012	mg/L		02/20/12 09:05	02/20/12 13:16	1

Lab Sample ID: LCS 480-52143/2-A
 Matrix: Water
 Analysis Batch: 52218

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52143

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Mercury	0.00667	0.00682		mg/L		102	85 - 115

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: LCS 480-52321/1
 Matrix: Water
 Analysis Batch: 52321

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Specific Conductance	998	1047		umhos/cm		105	90 - 110

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-52389/1-A
 Matrix: Water
 Analysis Batch: 52391

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52389

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Oil & Grease	ND		5.0	1.4	mg/L		02/21/12 15:10	02/21/12 15:18	1

Lab Sample ID: LCS 480-52389/2-A
 Matrix: Water
 Analysis Batch: 52391

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52389

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Oil & Grease	38.5	31.54		mg/L		82	78 - 114

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-52257/1-A
 Matrix: Water
 Analysis Batch: 52395

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52257

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cyanide, Total	ND		0.010	0.0050	mg/L		02/20/12 17:00	02/21/12 14:53	1

Lab Sample ID: LCS 480-52257/2-A
 Matrix: Water
 Analysis Batch: 52395

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52257

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
Cyanide, Total	0.400	0.479	*	mg/L		120	90 - 110

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-52253/1-A
 Matrix: Water
 Analysis Batch: 52948

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 52253

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenolics, Total Recoverable	0.00603	J	0.010	0.0050	mg/L		02/20/12 16:00	02/25/12 09:00	1

Lab Sample ID: LCS 480-52253/2-A
 Matrix: Water
 Analysis Batch: 52948

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 52253

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
Phenolics, Total Recoverable	0.100	0.0961		mg/L		96	90 - 110

Method: 9020 - Organic Halides, Total (TOX)

Lab Sample ID: MB 480-52866/1
 Matrix: Water
 Analysis Batch: 52866

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Halogens, Total Organic	ND		20.0	6.5	ug/L			02/24/12 13:40	1

Lab Sample ID: LCS 480-52866/2
 Matrix: Water
 Analysis Batch: 52866

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
Halogens, Total Organic	100	104.9		ug/L		105	75 - 125

Method: 9040B - pH

Lab Sample ID: LCS 480-52085/1
 Matrix: Water
 Analysis Batch: 52085

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
pH	7.00	6.990		SU		100	99 - 101

QC Sample Results

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis.

TestAmerica Job ID: 480-16320-1

Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-53807/27
 Matrix: Water
 Analysis Batch: 53807

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	Result	Qualifier	1.0	0.43	mg/L			03/03/12 06:02	1
	ND								

Lab Sample ID: LCS 480-53807/28
 Matrix: Water
 Analysis Batch: 53807

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
Total Organic Carbon	Added	Result	Qualifier	mg/L		103	Limits
	30.0	30.82					90 - 110



Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 480-52580/1
 Matrix: Water
 Analysis Batch: 52580

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	Result	Qualifier	10.0	4.0	mg/L			02/22/12 19:00	1
	ND								

Lab Sample ID: LCS 480-52580/2
 Matrix: Water
 Analysis Batch: 52580

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
Total Dissolved Solids	Added	Result	Qualifier	mg/L		94	Limits
	515	484.0					85 - 115

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-52263/39
 Matrix: Water
 Analysis Batch: 52263

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	Result	Qualifier	1.0	0.46	mg/L			02/20/12 20:34	1
	ND								

Lab Sample ID: MB 480-52263/60
 Matrix: Water
 Analysis Batch: 52263

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	Result	Qualifier	1.0	0.46	mg/L			02/20/12 22:36	1
	ND								

Lab Sample ID: MB 480-52263/66
 Matrix: Water
 Analysis Batch: 52263

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	Result	Qualifier	1.0	0.46	mg/L			02/20/12 23:36	1
	ND								

QC Sample Results

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 480-52263/38
Matrix: Water
Analysis Batch: 52263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.78		mg/L		107	90 - 110

Lab Sample ID: LCS 480-52263/65
Matrix: Water
Analysis Batch: 52263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.65		mg/L		107	90 - 110



QC Association Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

GC/MS VOA

Analysis Batch: 52148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	624	
480-16320-2	TRIP BLANK	Total/NA	Water	624	
LCS 480-52148/4	Lab Control Sample	Total/NA	Water	624	
MB 480-52148/5	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 52174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	625	
LCS 480-52174/2-A	Lab Control Sample	Total/NA	Water	625	
LCS 480-52174/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 480-52174/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 52316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	625	52174
LCS 480-52174/2-A	Lab Control Sample	Total/NA	Water	625	52174
LCS 480-52174/3-A	Lab Control Sample Dup	Total/NA	Water	625	52174
MB 480-52174/1-A	Method Blank	Total/NA	Water	625	52174

GC Semi VOA

Prep Batch: 52270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	3510C	
LCS 480-52270/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 480-52270/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-52270/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 52404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	608	52270
LCS 480-52270/2-A	Lab Control Sample	Total/NA	Water	608	52270
LCS 480-52270/3-A	Lab Control Sample Dup	Total/NA	Water	608	52270
MB 480-52270/1-A	Method Blank	Total/NA	Water	608	52270

Prep Batch: 52444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	3510C	
LCS 480-52444/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 480-52444/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-52444/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 52783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	608	52444
LCS 480-52444/2-A	Lab Control Sample	Total/NA	Water	608	52444
LCS 480-52444/3-A	Lab Control Sample Dup	Total/NA	Water	608	52444
MB 480-52444/1-A	Method Blank	Total/NA	Water	608	52444

QC Association Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Metals

Prep Batch: 52143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	245.1	
LCS 480-52143/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 480-52143/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 52218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	245.1	52143
LCS 480-52143/2-A	Lab Control Sample	Total/NA	Water	245.1	52143
MB 480-52143/1-A	Method Blank	Total/NA	Water	245.1	52143

Prep Batch: 52385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7	
LCS 480-52385/2-A	Lab Control Sample	Total/NA	Water	200.7	
MB 480-52385/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 52637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385
LCS 480-52385/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	52385
MB 480-52385/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	52385

Analysis Batch: 53019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385

Analysis Batch: 53451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	200.7 Rev 4.4	52385

General Chemistry

Analysis Batch: 52085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	9040B	
LCS 480-52085/1	Lab Control Sample	Total/NA	Water	9040B	

Prep Batch: 52253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	Distill/Phenol	
LCS 480-52253/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
MB 480-52253/1-A	Method Blank	Total/NA	Water	Distill/Phenol	

Prep Batch: 52257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	Distill/CN	
LCS 480-52257/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 480-52257/1-A	Method Blank	Total/NA	Water	Distill/CN	



QC Association Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

General Chemistry (Continued)

Analysis Batch: 52263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	SM 4500 Cl- E	
LCS 480-52263/38	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-52263/65	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 480-52263/39	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-52263/60	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-52263/66	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 52321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	120.1	
LCS 480-52321/1	Lab Control Sample	Total/NA	Water	120.1	

Prep Batch: 52389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	1664A	
LCS 480-52389/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 480-52389/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 52391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	1664A	52389
LCS 480-52389/2-A	Lab Control Sample	Total/NA	Water	1664A	52389
MB 480-52389/1-A	Method Blank	Total/NA	Water	1664A	52389

Analysis Batch: 52395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	335.4	52257
LCS 480-52257/2-A	Lab Control Sample	Total/NA	Water	335.4	52257
MB 480-52257/1-A	Method Blank	Total/NA	Water	335.4	52257

Analysis Batch: 52580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	SM 2540C	
LCS 480-52580/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 480-52580/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 52866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	9020	
LCS 480-52866/2	Lab Control Sample	Total/NA	Water	9020	
MB 480-52866/1	Method Blank	Total/NA	Water	9020	

Analysis Batch: 52948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	420.4	52253
LCS 480-52253/2-A	Lab Control Sample	Total/NA	Water	420.4	52253
MB 480-52253/1-A	Method Blank	Total/NA	Water	420.4	52253

Analysis Batch: 53807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16320-1	BRINE	Total/NA	Water	9060	
LCS 480-53807/28	Lab Control Sample	Total/NA	Water	9060	

QC Association Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

General Chemistry (Continued)

Analysis Batch: 53807 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-53807/27	Method Blank	Total/NA	Water	9060	

9

Lab Chronicle

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Client Sample ID: BRINE

Lab Sample ID: 480-16320-1

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	52148	02/20/12 15:09	TRB	TAL BUF
Total/NA	Prep	625			52174	02/20/12 10:21	TR	TAL BUF
Total/NA	Analysis	625		1	52316	02/21/12 12:15	AM	TAL BUF
Total/NA	Prep	3510C			52270	02/21/12 07:54	MZ	TAL BUF
Total/NA	Analysis	608		1	52404	02/21/12 18:28	JM	TAL BUF
Total/NA	Prep	3510C			52444	02/22/12 07:58	TR	TAL BUF
Total/NA	Analysis	608		5	52783	02/24/12 18:11	DB	TAL BUF
Total/NA	Prep	245.1			52143	02/20/12 09:05	JM	TAL BUF
Total/NA	Analysis	245.1		1	52218	02/20/12 13:50	JM	TAL BUF
Total/NA	Prep	200.7			52385	02/22/12 08:15	SS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	52637	02/22/12 18:17	LH	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		10	53019	02/24/12 23:11	LH	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		50	53019	02/24/12 23:18	LH	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		50	53451	02/29/12-22:49	AH	TAL BUF
Total/NA	Analysis	9040B		1	52085	02/17/12 19:28	KS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		6050	52263	02/20/12 23:36	KS	TAL BUF
Total/NA	Analysis	120.1		1	52321	02/21/12 09:56	JS	TAL BUF
Total/NA	Prep	1664A			52389	02/21/12 15:10	EGN	TAL BUF
Total/NA	Analysis	1664A		1	52391	02/21/12 15:18	EGN	TAL BUF
Total/NA	Prep	Distill/CN			52257	02/20/12 17:00	ML	TAL BUF
Total/NA	Analysis	335.4		1	52395	02/21/12 15:00	JR	TAL BUF
Total/NA	Analysis	SM 2540C		1	52580	02/22/12 19:10	KJ	TAL BUF
Total/NA	Analysis	9020		1	52866	02/27/12 07:29	JM	TAL BUF
Total/NA	Prep	Distill/Phenol			52253	02/20/12 19:46	KS	TAL BUF
Total/NA	Analysis	420.4		5	52948	02/25/12 10:40	PN	TAL BUF
Total/NA	Analysis	9060		1	53807	03/03/12 18:28	KAC	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-16320-2

Date Collected: 02/17/12 01:20

Matrix: Water

Date Received: 02/17/12 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	52148	02/20/12 15:32	TRB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298. TEL (716)691-2600

Certification Summary

Client: National Fuel Gas Supply Company
 Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas DEQ	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Georgia	State Program	4	N/A
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Kentucky (UST)	State Program	4	30
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	USDA	Federal		P330-08-00242
TestAmerica Buffalo	Virginia	NELAC Secondary AB	3	460185
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	West Virginia DEP	State Program	3	252
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL BUF
608	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
120.1	Conductivity, Specific Conductance	MCAWW	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
9020	Organic Halides, Total (TOX)	SW846	TAL BUF
9040B	pH	SW846	TAL BUF
9060	Organic Carbon, Total (TOC)	SW846	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 4500 Cl- E	Chloride, Total	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: National Fuel Gas Supply Company
Project/Site: Brine Priority Pollutant Analysis

TestAmerica Job ID: 480-16320-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-16320-1	BRINE	Water	02/17/12 01:20	02/17/12 15:50
480-16320-2	TRIP BLANK	Water	02/17/12 01:20	02/17/12 15:50

13

Chain of Custody Record

Client Information Client Contact: Dave Harty Company: Frontier Technical Associates Address: 9120 Main Street City: Clarence State: NY, 14031 Phone: 716-691-2600 Email: daveharta@aol.com Project Name: Birmie Priority Pollutant Analysis Site: NYS WASTEWATER		Lab PM: Schove, John E-Mail: john.schove@testamericainc.com Carrier Tracking No(s): Job #:		COC No: 480-21372-1755.1 Page: Page 1 of 1	
Analysis Requested 1684A Calc. Oil & Grease 429.4 Phenolics, Total Recoverable 9090 - Total Organic Carbon 624 5ml (MOP) Priority Pollutant List - VOA - 62 908 PCB (MOP) Local Method 508 Pest - Priority Pollutant Pesticides 625 - Priority Pollutant List - SVOA - 625 2540C Calc - Total Dissolved Solids 335.4 Cyanide, Total 120.1, 9040B 9020 Calc - Halogens, Total Organic		Analysis Requested 5M4500 Cl ⁻ - Chloride 200.7, 246.1 1684A Calc. Oil & Grease 429.4 Phenolics, Total Recoverable 9090 - Total Organic Carbon 624 5ml (MOP) Priority Pollutant List - VOA - 62 908 PCB (MOP) Local Method 508 Pest - Priority Pollutant Pesticides 625 - Priority Pollutant List - SVOA - 625 2540C Calc - Total Dissolved Solids 335.4 Cyanide, Total 120.1, 9040B 9020 Calc - Halogens, Total Organic		Special Instructions/Note: Preservation Codes: M - Hexane N - None O - AsHd02 P - Na2SO4 Q - Na2S2O3 R - Na2SO3 S - H2SO4 T - TSP Dithionite U - Acetone V - MCAA W - pH 4.5 X - EDTA Y - EDTA Z - other (specify) Other:	
Sample Identification Sample Date: 2/12/12 Sample Time: 1:10 Matrix: Water Sample Type: (C-comp, G-grab) Date: 2/12/12		Sample Identification Sample Date: 2/12/12 Sample Time: 1:10 Matrix: Water Sample Type: (C-comp, G-grab) Date: 2/12/12		Special Instructions/Note: Preservation Codes: M - Hexane N - None O - AsHd02 P - Na2SO4 Q - Na2S2O3 R - Na2SO3 S - H2SO4 T - TSP Dithionite U - Acetone V - MCAA W - pH 4.5 X - EDTA Y - EDTA Z - other (specify) Other:	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		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	
Deliverable Requested: I, II, III, IV, Other (specify)		Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by: Relinquished by: [Signature] Date/Time: 2/12/12 3:50 Company: FTA		Empty Kit Relinquished by: Relinquished by: [Signature] Date/Time: 2/12/12 15:50 Company: FTA		Method of Shipment:	
Custody Seals Intact: A: Yes <input type="checkbox"/> No <input type="checkbox"/>		Custody Seal No.:		Cooler Temperature(s): 18 F	

Login Sample Receipt Checklist

Client: National Fuel Gas Supply Company

Job Number: 480-16320-1

Login Number: 16320

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8 #2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	FRONTIER ASS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

JUN - 5 2012

Mr. Ian S. Henderson
Highway Superintendent
Town of Hartsville
5152 Purdy Creek Road
Hornell, NY 14843

Dear Mr. Henderson:

Re: Brine Bud # **B053-12** – Dust Control and Road Stabilization

We have reviewed the information submitted in your June 1, 2012 petition for the proposed beneficial use of brine from the National Fuel Gas Beech Hill facility located in Whitesville, New York as part of your dust control and road stabilization system. We have also reviewed the analytical report provided by National Fuel Gas for brine from the above source dated March 6, 2012. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- All vehicles transporting and spreading brine must have a valid Part 364 permit.
- Dust control activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied within 50 feet of any stream, creek, lake or other body of water or in a manner that could cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be spread after daylight hours, during rain or when rain is imminent or on sections of road having a grade exceeding 10 percent.
- Brine is approved for road spreading use on the unpaved sections of Town of Hartsville roads as outlined on the submitted map. Brine may be applied a maximum of ten times (10 total passes) on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management

6/11/12

1) Town of Hartsville

Ian S Henderson; Highway Superintendent

5152 Purdy Creek Road

Hornell NY 14843

2) National Fuel Gas - Independence Hill

County Rd 22

Independence NY

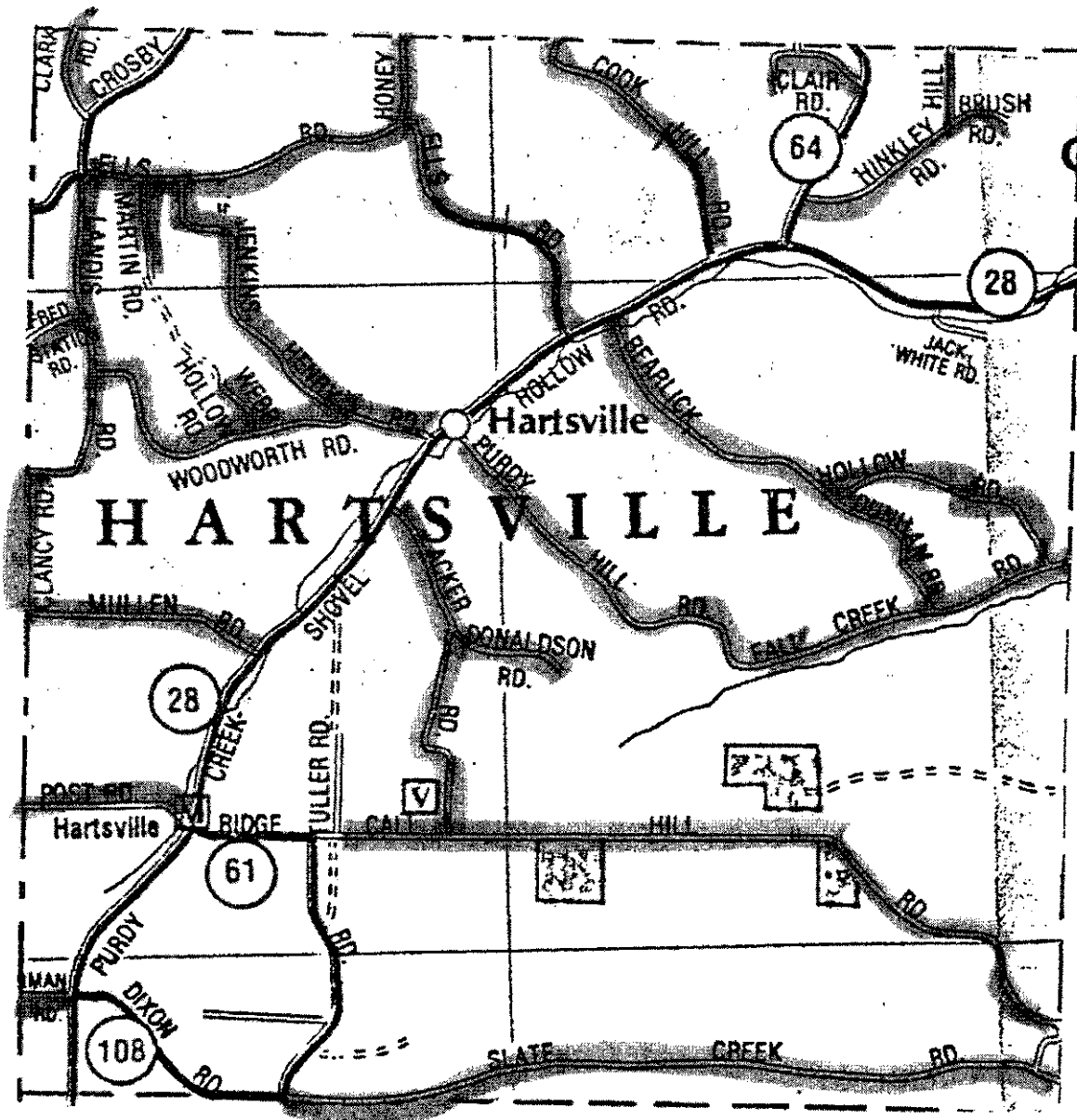
National Fuel Gas – Beech Hill

Peet Road

Willing NY

3) See Attached Map

4) The brine will be spread on Town Roads after grading for road stabilization. The Town roads are graded an average of two times per year. The vehicle being used to spread brine is a ten wheel dump truck with a 2600 gallon poly tank. There is an electric valve controlled from within the cab and a manual ball valve for transportation and emergency shut off. The brine is applied through a 3 inch pipe to a 3 inch spray bar with 3/8 holes spaced 3 inches apart. When spreading brine the vehicle travels at 8 to 9 miles per hour, 2600 gallons of brine is applied per mile on a 22 foot wide road, making 3 passes.



CLARY RD.

CROSBY RD.

HONEY HILL RD.

COOK HILL RD.

CLAIR RD. 64

HINKLEY HILL RD.

BRUSH RD.

MARTIN RD.

JENKINS RD.

WOODWORTH RD.

WELL HOLLOW RD.

REARLICK RD.

BUDDY HILL RD.

ROBELOW RD.

HARTSVILLE

CLAYTON RD.

CLAYTON RD.

JACK WHITE RD.

28

SPARTAN RD.

WELL HOLLOW RD.

WOODWORTH RD.

WELL HOLLOW RD.

BUDDY HILL RD.

HARTSVILLE

REARLICK RD.

BUDDY HILL RD.

ROBELOW RD.

CLAYTON RD.

JACK WHITE RD.

28

CLAYTON RD.

WOODWORTH RD.

WELL HOLLOW RD.

BUDDY HILL RD.

HARTSVILLE

REARLICK RD.

BUDDY HILL RD.

ROBELOW RD.

CLAYTON RD.

JACK WHITE RD.

28

CLAYTON RD.

WOODWORTH RD.

WELL HOLLOW RD.

BUDDY HILL RD.

HARTSVILLE

REARLICK RD.

BUDDY HILL RD.

ROBELOW RD.

CLAYTON RD.

JACK WHITE RD.

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CLAYTON RD.

WOODWORTH RD.

WELL HOLLOW RD.

BUDDY HILL RD.

HARTSVILLE

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BUDDY HILL RD.

ROBELOW RD.

CLAYTON RD.

JACK WHITE RD.

28

CLAYTON RD.

WOODWORTH RD.

WELL HOLLOW RD.

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HARTSVILLE

REARLICK RD.

BUDDY HILL RD.

ROBELOW RD.

CLAYTON RD.

JACK WHITE RD.

28

CLAYTON RD.

WOODWORTH RD.

WELL HOLLOW RD.

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HARTSVILLE

REARLICK RD.

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ROBELOW RD.

CLAYTON RD.

JACK WHITE RD.

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CLAYTON RD.

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CLAYTON RD.

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JACK WHITE RD.

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CLAYTON RD.

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CLAYTON RD.

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CLAYTON RD.

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CLAYTON RD.

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JACK WHITE RD.

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CLAYTON RD.

WOODWORTH RD.

WELL HOLLOW RD.

BUDDY HILL RD.

HARTSVILLE

REARLICK RD.

BUDDY HILL RD.

ROBELOW RD.

CLAYTON RD.

JACK WHITE RD.

28

SECTION A - NAME & ADDRESS**PERMIT NO.** _____Business Name: Town of HartsvilleBusiness Address: 5152 Purdy Creek RdCity: Hornell County: SteubenState/Province: NY Zip Code: 14843Phone: 607-698-2672 E-mail: hartsvillehighway Sup @ AOL.COM

Address where vehicles are stored when not in use:

Street: 5152 Purdy Creek RdCity: Hornell State/Province: NYZip Code: 14843**SECTION B - CERTIFICATION****PERMIT NO.** _____

I hereby certify that the information contained in this new permit application, permit renewal or modification submitted in support of obtaining a New York State Regulated Waste Transporter Permit contains no information that I know to be false, to be incomplete, or to have changed without notification to the Department. I also certify that all employees who are or will be involved in the transportation and handling of hazardous materials or medical waste have been or will be trained **(every three years)** in accordance with the requirements set forth in 49 CFR § 172.700 subpart H, and 29 CFR §1910.120 and 1910.1200 **(conducted annually)** before they handle hazardous materials (see instructions on the above web site). I also certify that all insurance coverages referenced herein comply with 6 NYCRR 364.5. I am aware that if I have knowingly omitted or falsified any information required to be disclosed, processing of the application may be delayed, and the certification or permit sought by the application may be denied or subsequently revoked. I am aware that false statements or omissions herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the NYS Penal Law, and that failure to pay all outstanding fees, provide proof of general liability insurance (hazardous, low level radioactive and medical waste transporters only), evidence of workers compensation insurance or submit an annual report for the previous calendar year, may delay processing or revocation of the permit. Further, I affirm that all transfer, storage, treatment and disposal facilities to which I transported waste, indicated in my annual report are authorized to accept the waste(s) identified by this permit, and have provided me with written permission to dispose of this waste. Finally, I agree to indemnify and hold The People of the State of New York, the Department, their officials, employees and contractors harmless from any claim or liability arising directly or indirectly out of this permit application, and the information contained herein, and any permit issued pursuant thereto.

Print Name: Ian S Henderson Title: Highway SuperintendentSignature:  Date: 6/1/2012

01/26/11

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

JUL 18 2012

Mr. David C. Rauscher
President
D.C. Rauscher, Inc.
1622 NYS Rte. 414
Waterloo, NY 13165

Dear Mr. Rauscher:

Re: Brine Bud # **B054-12** – Dust Control and Road Stabilization

We have reviewed the information submitted in your July 17, 2012 petition for the proposed beneficial use of brine from the natural gas well 626016-Martin located in Seneca County, New York as part of your dust control and road stabilization system at the Empire Farm Days site in Seneca Falls. We have also reviewed the analytical report provided for brine from the above source dated July 16, 2012. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

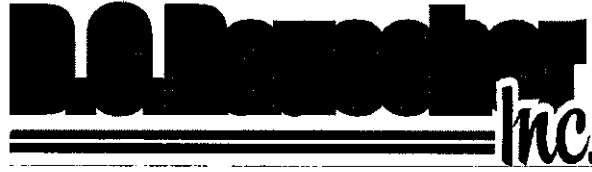
- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- All vehicles transporting and spreading brine must have a valid Part 364 permit.
- Dust control activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied within 50 feet of any stream, creek, lake or other body of water or in a manner that could cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be spread during rain or when rain is imminent or on sections of road having a grade exceeding 10 percent.
- Brine is approved for road spreading use on the unpaved parking and driveway areas of the Rodman Lott and Son Farms property as shown on the submitted map. Brine may be applied a maximum of four times (4 total passes) on any section during a season. Please contact this office should the need arise to increase the application frequency or add additional roads.

You must keep a copy of this letter in all vehicles engaged in road spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organics Recycling & Beneficial Use
Bureau of Waste Reduction & Recycling
Division of Materials Management



1622 NYS Rte 414
Waterloo, NY 13165
315 539 5336
315 539 8920 fax
dcrauscher@yahoo.com

July 17, 2012

To:
NYS DEC
Mr. Steve Condon

Dear Steve:

Our company has been requested to spread brine for dust control at the Empire Farm Days in Seneca Falls NY. We are requesting the NYS DEC to issue a BUD for the brine spreading.

The brine will be taken from the 626016 Martin natural gas well located in Seneca County NY. You have been emailed the analyticals for the brine water.

Our water tank truck is equipped with a spreader bar, the controls for the application of brine located in the cab of the truck within the driver's reach.

Attached is the following: a map of the area where our client requests the brine to be spread. All locations are stone covered parking and driveways; a letter from the landowner allowing the spreading of the brine.

If anything else is needed for the approval of the BUD, please do not hesitate to contact me.

Sincerely,

David J Wawro
Operations Manager

Stephen Condon - Fw: DEC BUD Request 07/17/2012 16:55

From: Dave Rauscher <dcrauscher@yahoo.com>
To: Stephen Condon <sccondon@gw.dec.state.ny.us>
Date: 7/17/2012 4:59 PM
Subject: Fw: DEC BUD Request 07/17/2012 16:55
Attachments: DOC071712.pdf; NYS DEC BUD Request.docx

Hello Steve:

Attached is the map, and BUD request letters.

Please review and advise if anything else is needed.

Thanks

Dave Wawro

D.C. Rauscher, Inc.
1622 NYS Rte 414
Waterloo, NY 13165
315-539-5336 phone
315-539-8920 fax
office@dcrauscher.com

----- Forwarded Message -----

From: Toshiba Scanner/Printer <jamierauscher@yahoo.com>
To: DC Rauscher Office <dcrauscher@yahoo.com>
Sent: Tuesday, July 17, 2012 7:55 PM
Subject: DEC BUD Request 07/17/2012 16:55

Scanned from MFP-07065893.

Date: 07/17/2012 16:55

Pages:2

Resolution:200x200 DPI

Rodman Lott and Son Farms, LLP

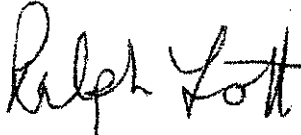
2973 Rte 414, Seneca Falls, NY 13148

315-568-9501

To whom it may concern:

I, Ralph Lott, Partner of the property defined in the attached map, which is leased annually to the Empire State Potato Growers, Inc to hold the Empire Farm Days event, authorize the use of Brine for dust control on the grounds.

Sincerely,

A handwritten signature in black ink that reads "Ralph Lott". The signature is written in a cursive style with a large initial "R" and a stylized "Lott".

Ralph Lott, Partner

Rodman Lott and Son Farms, LLP

DRIVING & PARKING AT EFD

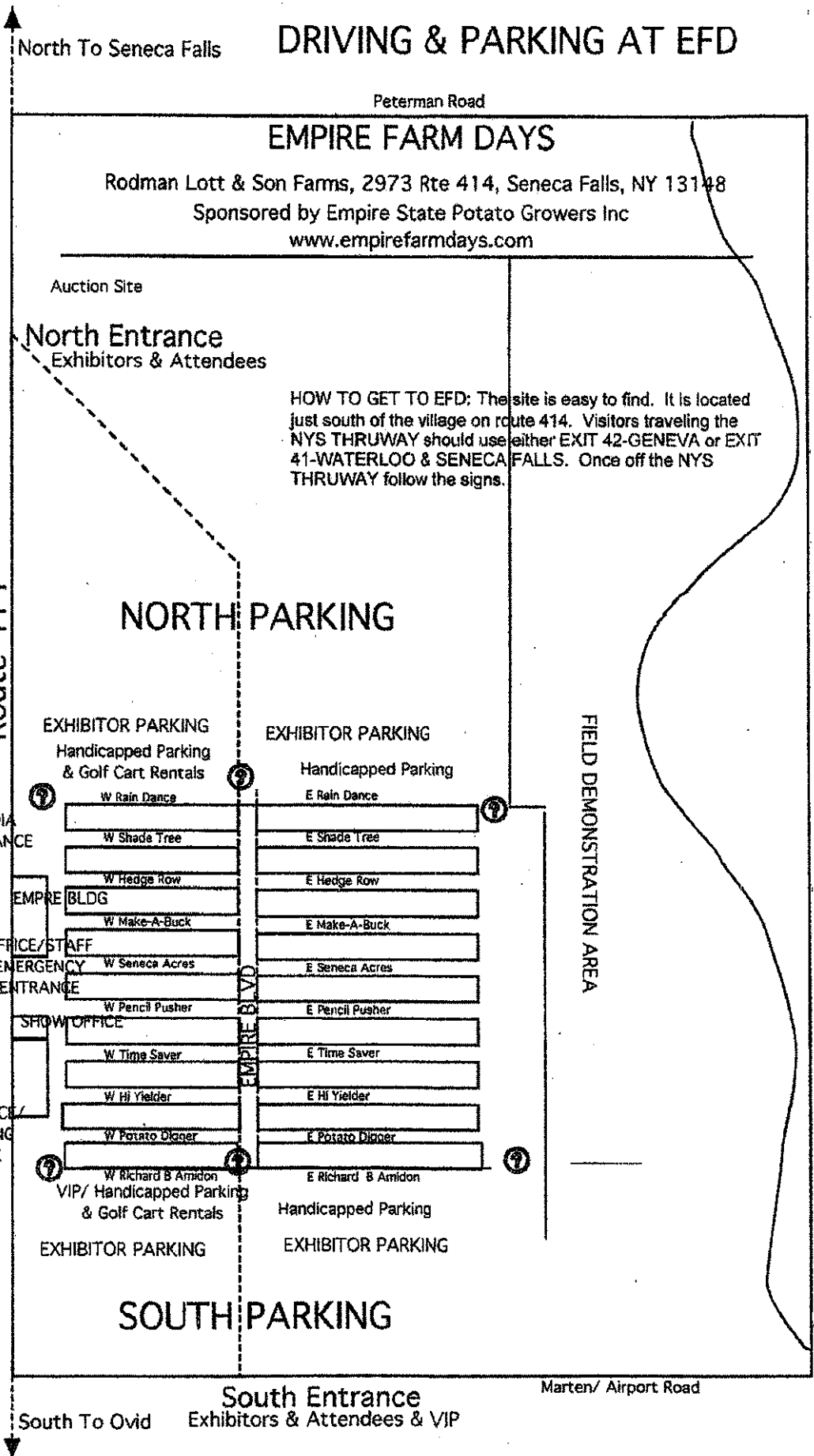
PARKING HINTS:

EXHIBITORS: Use either North or South parking lot as indicated on your pass. Exhibitor Lots are located closest to the exhibit area. Space is limited, arrive early for best availability. Once full-exhibitors must park in general lots. **THERE IS NO TRAFFIC ALLOWED ON THE SHOW SITE 8:30 AM- 5 PM.**

MEDIA: Enter just past the North Entrance. You will be directed to media parking and the media center. The media center is in the Welcome Center 504.

BUSES: Enter just past the office entrance into the Loading Dock entrance.

Attendees: Traffic Officials will direct you to the closest available parking in either the North or South Parking Lots.



HOW TO GET TO EFD: The site is easy to find. It is located just south of the village on route 414. Visitors traveling the NYS THRUWAY should use either EXIT 42-GENEVA or EXIT 41-WATERLOO & SENECA FALLS. Once off the NYS THRUWAY follow the signs.



Upstate Laboratories, Inc.

Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209

Mailing: Box 169 * Syracuse, NY 13206

Albany (518) 459-3134 * Binghamton (607) 239-4413 * Buffalo (716) 972-0371

Rochester (866) 437-0255 * New Jersey (908) 581-4285

Mr. David Rauscher, President

D.C. Rauscher, Inc.

1622 NYS Rt. 414

Waterloo, NY 13165

(315) 539-5336

Monday, July 16, 2012

RE: Analytical Report:

Order No.: U1206813

Brine Fluid Testing

Dear Mr. David Rauscher, President:

Upstate Laboratories, Inc. received 1 sample(s) on 6/29/2012 for the analyses presented in the following report.

All analytical results relate to the samples as received by the laboratory.

All analytical data conforms with standard approved methodologies and quality control. Our quality control narrative will be included should any anomalies occur.

We have included the Chain of Custody Record as part of your report. The NYS DOH requires that all samples received by the laboratory must have a Collection Date and Time, and a Relinquished By signature. You may need to reference this form for a more detailed explanation of your samples. Samples will be disposed of approximately one month from final report date.

Should you have any questions regarding these tests, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

AJS (PFF)
Anthony J. Scala
President/CEO

Confidentiality Statement: This report is meant for the use of the intended recipient. It may contain confidential information, which is legally privileged or otherwise protected by law. If you have received this report in error, you are strictly prohibited from reviewing, using, disseminating, distributing or copying the information.

Upstate Laboratories, Inc.

Analytical Report

Date: 16-Jul-12

CLIENT: D.C. Rauscher, Inc.	Client Sample ID: Brine Solution
Lab Order: U1206813	Collection Date: 6/29/2012 10:00:00 AM
Project: Brine Fluid Testing	
Lab ID: U1206813-001	Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

PH BY SM 18-21 4500-H B (00)

Lab Code: PH_W

Analyst: TC

pH	4.80	2.00	H	SU	1	7/2/2012 8:26:00 AM
----	------	------	---	----	---	---------------------

NOTES:

Sample was over the holding time at receipt.

ICP METALS, TOTAL BY EPA 200.7

Lab Code: 200.7WT

Analyst: LET

[AqPrep ICP - EPA 3005A Prep Code: 200.7TPR Prep Date: 7/2/2012 2:56:26 PM Prep By: ARO]						
Barium	19	3.0	Q	mg/L	10	7/11/2012 7:25:16 PM
Calcium	33000	100		mg/L	200	7/13/2012 4:23:40 PM
Iron	100	0.30		mg/L	10	7/11/2012 7:25:16 PM
Lead	ND	1.0		mg/L	10	7/11/2012 7:25:16 PM
Magnesium	2200	100		mg/L	200	7/13/2012 4:23:40 PM
Sodium	63000	100		mg/L	200	7/13/2012 4:23:40 PM

NOTES:

The reporting limits were raised due to matrix interference.

VOLATILES CP-51 LIST BY METHOD 5030/8260B

Lab Code: 8260B_STARS_W

Analyst: EMZ

Benzene	ND	30		µg/L	10	7/11/2012 3:39:00 PM
Ethylbenzene	ND	30		µg/L	10	7/11/2012 3:39:00 PM
m,p-Xylene	ND	30		µg/L	10	7/11/2012 3:39:00 PM
o-Xylene	ND	30		µg/L	10	7/11/2012 3:39:00 PM
Toluene	ND	30		µg/L	10	7/11/2012 3:39:00 PM

NOTES:

The reporting limits were raised due to the high concentration of non-target compounds.

CHLORIDE WATERS BY LACHAT 10-117-07-1 A

Lab Code: CL_W_AUTO

Analyst: CAS

Chloride	218000	2000		mg/L	2000	7/9/2012
----------	--------	------	--	------	------	----------

OIL AND GREASE BY EPA 1664A

Lab Code: O&G_W

Analyst: CAS

Oil and Grease	7.1	5.0		mg/L	1	7/10/2012
----------------	-----	-----	--	------	---	-----------

SULFATE BY ASTM D516-90, 02 & 07

Lab Code: SULFATE_W

Analyst: CAG

Approved By: PFF

Date: 7-16-12

Page 1 of 2

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 16-Jul-12

CLIENT: D.C. Rauscher, Inc.	Client Sample ID: Brine Solution
Lab Order: U1206813	Collection Date: 6/29/2012 10:00:00 AM
Project: Brine Fluid Testing	
Lab ID: U1206813-001	Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE BY ASTM D516-90, 02 & 07						
						Lab Code: SULFATE_W Analyst: CAG
Sulfate	ND	5.00		mg/L	1	7/10/2012
TDS BY SM 18-21 2540C (97)						
						Lab Code: TDS Analyst: NKA
Residue, Dissolved (TDS)	440000	50		mg/L	1	7/2/2012

Approved By: PFF

Date: 7-16-12

Page 2 of 2

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Chain of Custody Record

6034 Corporate Drive E. Syracuse New York 13057
 Phone (315) 437 0266 Fax (315) 437 1209
 Project #/ Project Name

D.C. Rauscher, Inc. **Brine Fluid Testing**
 Location (City/State)

Dave Rauscher **Waterloo NY**
 Phone #

Sample ID **6/29/12 10:00AM** Date **6/29/12** Time **10:00AM** Matrix **Water** Grab or Comp **Grab**

Brine Solution

Parameter and Method	Sample bottle:	Type	Size	Preservative	Number of Containers	Number of Containers										Remarks			
						1	2	3	4	5	6	7	8	9	10				
1 pH, TDS, Chloride, Sulfate		Plastic	1 Liter	None	5	X	X	X	X										
2 Oil & Grease		Plastic	1 Liter	H2SO4															
3 Total - Ba,Ca,Fe,Pb,Mg,Na by (EPA 200.7)		Plastic	500ml	HNO3															
4 BTEX (EPA 8260)		Plastic	2 Vials	1:1 HCl															
5																			
6																			
7																			
8																			
9																			
10																			

Sampled by (Print)
DAVID WAWRO
 Company: **D.C. RAUSCHER, INC.**

Relinquished by: (sign)
David Wawro
 Date: **6/29** Time: **11:48**

Received by: (sign)
David Wawro
 Date: **6/29** Time: **11:48**

Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Received from Lab by:
[Signature]

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

NOV 5 2012

Mr. Dan H. Strickland
Highway Superintendant
Town of North Harmony
P.O. Box 167
Stow, NY 14785-0167

Dear Mr. Strickland:

Re: Brine Bud # **B055-12** - Deicing Agent

We have reviewed the information submitted in your March 13, 2012 request for the proposed beneficial use of brine provided by Atlas Energy Resources from Medina and Bass Formation wells as part of your snow and ice control system. We have also reviewed the analytical data provided by Atlas Energy dated March 5, 2012 and reviewed analytical data acquired directly from Chautauqua County brine tanks by the New York State Department of Environmental Conservation (Department). This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

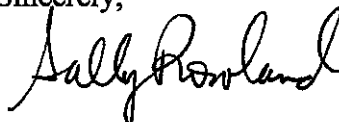
- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- Town of North Harmony vehicles that apply brine supplied from storage tanks shared with the Chautauqua County Highway Department or from tanks owned by the Town do not require a Part 364 permit, as long as vendor vehicles transporting brine to the tanks have a valid permit and these storage tanks are listed as destination facilities on the permit.
- Deicing activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied within 50 feet of any stream, creek, lake or other body of water or in a manner that could cause brine to flow or run off into streams, creeks, lakes and other bodies of water.

Brine is approved for road spreading use on all paved Town of North Harmony roads. Brine may be applied a maximum of twenty times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads. In addition, a brine sample may be required in order to update the chemical analysis on file. Staff will be in contact for a convenient date and time.

You must keep a copy of this letter and the Part 364 permit (if required) in all vehicles transporting or spreading brine. The Department reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

A handwritten signature in black ink that reads "Sally Rowland". The signature is written in a cursive style with a large initial 'S' and 'R'.

Sally Rowland, Ph.D., P.E.
Organic Recycling & Beneficial Use Section
Bureau of Waste Reduction & Recycling
Division of Materials Management

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

NOV 16 2012

Mr. Richard Butts
Highway Superintendent
Town of Dunkirk
4737 Willow Rd.
Dunkirk, NY 14048

Dear Mr. Butts:

Re: Brine Bud # **B057-12** - Deicing Agent

We have reviewed the information submitted in your November 1, 2012 request for the proposed beneficial use of brine from the Chautauqua County "Dunkirk West" storage tank as part of your snow and ice control system. We have also reviewed analytical data provided by Chautauqua County and reviewed analytical data from brine acquired directly from Chautauqua County brine tanks by the New York State Department of Environmental Conservation (Department). This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

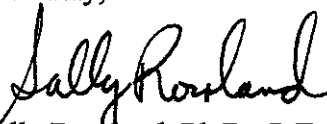
- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- Town of Dunkirk vehicles that apply brine supplied from storage tanks shared with the Chautauqua County Highway Department do not require a Part 364 permit, as long as vendor vehicles transporting brine to the tanks have a valid permit and these storage tanks are listed as destination facilities on the permit.
- Brine must be applied by use of a spreader bar or similar spray device with shut off controls in the cab of the truck and with vehicular equipment that is dedicated to this use or cleaned of previously transported waste materials.
- Brine may be used to treat bridge surfaces when deemed necessary for public safety, but must not be applied in a manner that could cause liquid to flow or run off into streams, creeks, lakes and other bodies of water.

Brine is approved for road spreading use on all Town of Dunkirk roads. Brine may be applied a maximum of thirty times on any section of road during a season. Please contact this office should the need arise to increase the application frequency or add additional roads. In addition, a brine sample may be required in order to update the chemical analysis on file. Staff will be in contact for a convenient date and time.

You must keep a copy of this letter and the Part 364 permit (if required) in all vehicles transporting or spreading brine. The Department reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

A handwritten signature in cursive script that reads "Sally Rowland".

Sally Rowland, Ph.D., P.E.
Organic Recycling & Beneficial Use Section
Bureau of Waste Reduction & Recycling
Division of Materials Management



SUPERVISOR

RICHARD A. PUROL

COUNCIL

MARK KUTNER
HENRY WALLDORFF
ROBERT PENHARLOW
JUAN PAGAN

CLERK

JEAN CRANE

4737 WILLOW RD. · DUNKIRK, NEW YORK 14048 · (716) 366-3967 · Fax (716) 366-3544

November 1, 2012

The brine will be distributed with a two ton truck with a control valve for the rate of application. The brine is applied by use of a spreader bar with air valve controls to shut off and on inside the truck. The rate is five gallons per mile and the frequency of application is weather related. We have one creek that runs through the Town located on Willow Road the name of the creek is Canadaway and we will stop spreading salt brine two hundred feet before the bridge on either side.

Richard J. Butts
Highway Superintendent



New York State Department of Environmental Conservation
Division of Materials Management, Bureau of Permitting and Planning
625 Broadway, 9th Floor, Albany, NY 12233-7251

WASTE TRANSPORTER (PART 364/381) PERMIT APPLICATION

Additional information and forms can be found at:
<http://www.dec.ny.gov/chemical/8483.html>

Note: All applications and any proposed changes to an existing permit must be recorded on these **new** forms, available on the Department's website or by request at (518) 402-8792. All new applications must be mailed to the above address. All modifications and/or renewals can be faxed (518-402-9034) or e-mailed (transport@gw.dec.state.ny.us). Once issued, permits will be mailed to applicants and will not be available at 625 Broadway for receipt. **Do not send payment with your application, modification, or renewal. You will be billed separately.**

TYPE OF APPLICATION: (check one)

- New Permit Application (Complete Sections A-F)
Once approved, a permit number will be assigned to new permits.

Have you ever had a Part 364 Permit? Yes, Permit Number _____

- Modification Application (Complete Sections A and B, as well as any changes to Sections C-F). Modifications may only be done twice per month.

Permit Number _____

Application Sections Include the Following:

- A - Name and Address
- B - Certification
- C - Wastes to be Transported
- D - Vehicle Information
- E - Insurance
- F - Disposal Facility Information

Note: Any of the sections of the application that are not complete will be indicated, and the entire application may be returned to the applicant. Such returned application will serve as the Department's "Incomplete Notice." Once corrected, the entire application must be returned to the Department.

SECTION F – DISPOSAL FACILITY INFORMATION PERMIT NO.

Please use the waste types found in Section C and type or print legibly the disposal facility name, address, phone number and permit or registration number. For permit renewals or modifications, list only the facilities you want added or deleted. Attach additional pages if necessary.

Waste Type	Disposal Facility Name, Address and Phone Number	Permit/ Registr. No. or Beneficial Use Determination (BUD) No.	What should be done with this facility on the permit?
SALT BRINE FOR RECYCLING	TOWN OF DUNKIRK ALL ROADS IN THE TOWN OF DUNKIRK TOTAL LAND MILES 14.27		<input checked="" type="checkbox"/> Add <input type="checkbox"/> Remove
			<input type="checkbox"/> Add <input type="checkbox"/> Remove
			<input type="checkbox"/> Add <input type="checkbox"/> Remove
			<input type="checkbox"/> Add <input type="checkbox"/> Remove
			<input type="checkbox"/> Add <input type="checkbox"/> Remove
			<input type="checkbox"/> Add <input type="checkbox"/> Remove
			<input type="checkbox"/> Add <input type="checkbox"/> Remove

New York State Department of Environmental Conservation
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Phone: (518) 402-8792 • Fax: (518) 402-9034
Website: www.dec.ny.gov



November 7, 2012

Mr. Richard Butts, Jr.
Highway Superintendent
4737 Willow Road
Dunkirk, NY 14048

Dear Mr. Butts:

As a follow-up to our telephone conversation this morning regarding your application for a NYS Part 364 Waste Transporter Permit on behalf of Town of Dunkirk Highway Department, this letter serves to confirm that you do not require a NYS Part 364 Permit based on the following:

You state that the salt brine that you will be applying to Town of Dunkirk roads is not being transported by Town of Dunkirk Highway Department, but is being taken from a Chautauqua County tank on your property that is filled by a current Part 364-permitted hauler. This brine is then applied directly to roads in the Town of Dunkirk by the Highway Department. You do, however, require a Beneficial Use Determination (BUD) to apply this material to roadways. Please contact Steve Condon, of our Division of Materials Management (518-402-8706), who handles the BUD program for this material.

Should your situation change, and you need to start hauling regulated waste to your facility, a NYS Part 364 Waste Transporter Permit would be required.

Sincerely,



Michael J. McTague

Section Chief

Compliance and Resource Management
Bureau of Permitting and Planning
Division of Materials Management



SUPERVISOR
RICHARD A. PUROL

COUNCIL
MARK KUTNER
HENRY WALLDORFF
ROBERT PENHARLOW
JUAN PAGAN

CLERK
JEAN CRANE

4737 WILLOW RD. · DUNKIRK, NEW YORK 14048 · (716) 366-3967 · Fax (716) 366-3544

November 15, 2012

New York State Dept. of Environmental Conservation
Division of Solid and Hazardous Materials
Bureau of Solid Waste, Reduction 9th Floor
625 Broadway
Albany, NY 12233-7253

RECEIVED
NYSDEC

NOV 19 2012

DIRECTOR'S OFFICE
DIV. OF MATERIALS MANAGEMENT

To whom it may concern:

This letter gives authorization for the Town of Dunkirk Highway Department to use brine on roads located within the Town of Dunkirk.

Enclosed you will find a description of how the brine will be spread and an identification map of the specific roads that are to receive the brine.

The brine is stored in a County tank located on Town property next to the town barns at 4737 Willow Road. The physical address of the brine locations from which the brine is hauled is kept on file by Cotton Well Drillers who do the hauling for the County. If you need a copy of a map detailing the situation of these wells please let us know.

Sincerely,

Richard A. Purol
Town Supervisor
Town of Dunkirk
716 366-3967



SUPERVISOR

RICHARD A. PUROL

COUNCIL

MARK KUTNER
HENRY WALLDORFF
ROBERT PENHARLOW
JUAN PAGAN

CLERK

JEAN CRANE

4737 WILLOW RD. · DUNKIRK, NEW YORK 14048 · (716) 366-3967 · Fax (716) 366-3544

November 1, 2012

The brine will be distributed with a two ton truck with a control valve for the rate of application. The brine is applied by use of a spreader bar with air valve controls to shut off and on inside the truck. The rate is five gallons per mile and the frequency of application is weather related. We have one creek that runs through the Town located on Willow Road the name of the creek is Canadaway and we will stop spreading salt brine two hundred feet before the bridge on either side.

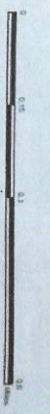
Richard J. Butts
Highway Superintendent



MAY 2009



TOWN OF WEST DUNKIRK CHAUTAQUA COUNTY, NEW YORK ROAD MAP



Legend

- M. D. S.
- Private Roads
- Interstate 90
- Maintained by State DOT
- Maintained by Chautauqua Co.
- Maintained by Town of Dunkirk

TOTAL Lane Miles 14.28
 Curable miles 7.26
 55714 Curb's Per mile 2 hours



TOWN OF EAST DUNKIRK
ROAD MAP, CHAUTAQUA COUNTY, NEW YORK

MAY 2009



Handwritten red text: "The Dunkirk"

Legend

- Maintained by Town of Dunkirk
- Maintained by Chautauqua Co.
- Maintained by State DOT
- Interstate 90
- Private Roads

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

JAN 25 2013

Mr. Thomas Pilling
D.P.W. Supervisor
Village of Lakewood
20 West Summit St.
Lakewood, NY 14750

Dear Mr. Pilling:

Re: Brine Bud # **B058-13** - Deicing Agent, Dust Control

We have reviewed the information submitted in your January 8, 2013 request for the proposed beneficial use of brine from your storage tank located at 6 Packard Ave., Lakewood, New York as part of your snow, ice and dust control systems. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

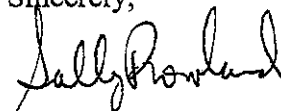
- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- Village of Lakewood vehicles that apply brine supplied from storage tanks do not require a Part 364 permit, as long as vendor vehicles transporting brine to the tanks have a valid permit and these storage tanks are listed as destination facilities on the permit.
- Deicing activities must be conducted in accordance with procedures described in your BUD petition and applied in accordance with NYSDOT Office of Operations Management Highway Maintenance Guidelines for Snow and Ice control. Brine must be applied by use of a spreader bar or similar spray device with shut off controls in the cab of the truck and with vehicular equipment that is dedicated to this use or cleaned of previously transported waste materials.
- Brine may be used to treat bridge surfaces when deemed necessary for public safety, but must not be applied in a manner that could cause liquid to flow or run off into streams, creeks, lakes and other bodies of water.

Brine is approved for road spreading use on all Village of Lakewood roads, as well as the section County Highway 110 as shown on the enclosed map. Brine may be applied a maximum of thirty times on any section of roadway or stock pile yards during a season. Please contact this office should the need arise to increase the application frequency or add additional roads. In addition, a brine sample will be required in order to update the chemical analysis on file. Staff will be in contact for a convenient date and time.

You must keep a copy of this letter and the Part 364 permit (if required) in all vehicles transporting or spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

A handwritten signature in cursive script that reads "Sally Rowland".

Sally Rowland, Ph.D., P.E.
Organic Recycling & Beneficial Use Section
Bureau of Waste Reduction & Recycling
Division of Materials Management

Mayor
DAVID T. WORDELMANN
Village Treasurer
ANDREA J. WINDOFT
Village Clerk
JOSEPH M. JOHNSON
D.P.W. Supervisor
THOMAS R. PILLING

Village of Lakewood

ON THE SHORES OF BEAUTIFUL LAKE CHAUTAUQUA
Incorporated 1893

Trustees
JOSEPH M. TROCHÉ
GALE A. DENN
SUSAN F. DRAGO
JOHN JABLONSKI III
Village Attorney
EDWARD P. WRIGHT, ESQ.

January 8, 2013

RECEIVED
NYSDEC

JAN 10 2013

DIRECTOR'S OFFICE
DIV. OF MATERIALS MANAGEMENT

Mr. Steven Condon
New York State Department of Environmental Conservation
Bureau of Solid Waste Reduction & Recycling
625 Broadway, 9th Floor
Albany, New York 12233-7253

RE: Beneficial Use Determination (BUD)
- Part 364 Permit

Dear Mr. Condon:

As D.P.W. Supervisor of the Village of Lakewood, I'm seeking approval to use salt brine for road de-icing, dust suppression and/or road stabilization on all Village of Lakewood streets and Chautauqua County Highway #110, (Summit Street), from NYS Rt. #394 east to Jackson Ave.

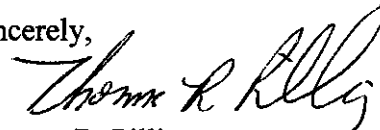
Enclosed please find a map hi-lighting the specific roads that are to receive brine as well as a chemical analysis of the brine as provided by the supplier.

The salt brine will be applied via a 300 gallon poly-tank with a spreader bar controlled by an electric open & close switch in the cab of the truck. During the winter months the brine will be used as a secondary de-icing method and will be applied in accordance with New York State Department of Transportation guidelines for anti-icing with liquids. For dust control purposes brine will be applied on stock pile yards in close proximity to 6 Packard Ave. only during daylight hours and a minimum of 150 ft. from any and all water sources during brining operations.

Brine for use by the Village of Lakewood Department of Public Works is stored in one (1) 10,000 gallon above ground steel tank located adjacent to the D.P.W. garage, 6 Packard Ave., Lakewood, New York.

If you should require any additional information concerning this permit request, please do not hesitate to call (716) 763-8557. Thanks.

Sincerely,



Thomas R. Pilling
D.P.W. Supervisor

enc: 2
cc: file

Microbac Laboratories, Inc.

ERIE DIVISION
1962 WAGER ROAD
ERIE, PA 16509

(814) 825-8533 FAX (814) 825-9254

CHERI BROLASKI, LABORATORY DIRECTOR

http://www.microbac.com E-Mail: erie@microbac.com

STATE CERT ID.

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C-PA-05

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PRELIMINARY CERTIFICATE OF ANALYSIS

S. ST. GEORGE ENTERPRISES INC.
3689 WEBSTER ROAD
FREDONIA, NY 14063

Date Reported
Date Received 1/22/2010
Order Number 1001-03777
Invoice No.
Cust # 019448
Sampler AMF

Permit No.
Cust P.O.

SUBJECT: SAMPLES FOR ANALYSIS

TEST	METHOD	RESULT	UNITS	ANALYSIS		TECH	ACCRED.
				DATE	TIME		
001. RICHTER BRINE WATER							
Date Sampled: 1/21/2010		Time Sampled: 2:15 pm					
Metals By ICP	EPA 200.7			2/2/2010	15:09	MWR	☞
Cadmium	EPA 200.7	<0.050	mg/L	2/2/2010	15:09	MWR	☞
Chromium	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	☞
Copper	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	☞
Lead	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	☞
Nickel	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	☞
Silver	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	☞
Zinc	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR	☞
Mercury	SM 3112 B	0.278	mg/L	2/2/2010	15:09	MWR	☞
		<0.002	mg/L	1/29/2010	11:17	BJJ	☞
002. RICHTER BRINE WATER							
Date Sampled: 1/21/2010		Time Sampled: 2:15 pm					
Pesticide, Organochlorin, PCB	EPA 608			2/5/2010	17:05	DJS	☞
Alpha BHC	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
gamma BHC (Lindane)	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Beta BHC	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Heptachlor	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Delta BHC	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Aldrin	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Heptachlor Epoxide	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Endosulfan I	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
4,4'-DDE	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Dieldrin	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Endrin	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
4,4'-DDD	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Endosulfan II	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
4,4'-DDT	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Endrin Aldehyde	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Endosulfan Sulfate	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Chlordane	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS	☞
Toxaphene	EPA 608	<0.4	µg/L	2/5/2010	17:05	DJS	☞
PCB-1016	EPA 608	<0.4	µg/L	2/5/2010	17:05	DJS	☞
		<0.5	µg/L	2/5/2010	17:05	DJS	☞



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

002- RICHTER BRINE WATER
Date Sampled: 1/21/2010

Time Sampled: 2:15 pm

.....continued

PCB-1221	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	☞
PCB-1232	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	☞
PCB-1242	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	☞
PCB-1248	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	☞
PCB-1254	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	☞
PCB-1260	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS	☞

003- RICHTER BRINE WATER

Date Sampled: 1/21/2010

Time Sampled: 2:15 pm

Volatile Organics	EPA 624			1/27/2010	9:26	JFR	
Acrolein	EPA 624	<50	µg/L	1/27/2010	9:26	JFR	☞
Acrylonitrile	EPA 624	<50	µg/L	1/26/2010	8:48	JFR	☞
Benzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Bromodichloromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Bromoform	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Bromomethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Carbon Tetrachloride	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Chlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Chloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
2-Chloroethyl Vinyl Ether	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Chloroform	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Chloromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Dibromochloromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
1,2-Dichlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
1,3-Dichlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
1,4-Dichlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
1,1-Dichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Dichlorodifluoromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
1,2-Dichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
1,1-Dichloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞
Trans-1,2-Dichloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	☞



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Cust # 019448
Sampler AMF

Permit No.
Cust P.O.

SUBJECT: SAMPLES FOR ANALYSIS

TEST	METHOD	RESULT	UNITS	ANALYSIS		TECH	ACCRED.
				DATE	TIME		
003: RICHTER BRINE WATER							
Date Sampled: 1/21/2010				Time Sampled: 2:15 pm			
.....continued							
1,2-Dichloropropane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
cis-1,3-Dichloropropene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Trans-1,3-Dichloropropene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Ethyl Benzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Methylene Chloride	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
1,1,2,2-Tetrachloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Tetrachloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Toluene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
1,1,1-Trichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
1,1,2-Trichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Trichloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Trichlorofluoromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Vinyl Chloride	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Xylenes	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Acetone	EPA 624	<15	µg/L	1/26/2010	8:48	JFR	§§
2-Hexanone	EPA 624	431	µg/L	1/26/2010	8:48	JFR	§§
Methyl Ethyl Ketone	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Methyl Isobutyl Ketone	EPA 624	<100	µg/L	1/27/2010	9:26	JFR	§§
Methyl-Tert-Butyl Ether	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
Naphthalene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	§§
cis-1,2-Dichloroethylene	EPA 624	<5	µg/L	1/27/2010	9:26	JFR	§§
		<5	µg/L	1/26/2010	8:48	JFR	§§

04: RICHTER BRINE WATER

Date Sampled: 1/21/2010

Time Sampled: 2:15 pm

Base Neutrals (NYS)	EPA 1984 625		ppb	2/5/2010	6:12	OST	
Acenaphthene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Anthracene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Benzo(A)Anthracene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Benzo(B)Fluoranthene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Benzo(K)Fluoranthene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Benzo(A)Pyrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
		<10	µg/L	2/5/2010	6:12	OST	



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SUBJECT: SAMPLES FOR ANALYSIS

TEST	METHOD	RESULT	UNITS	ANALYSIS DATE	TIME	TECH ACCRED.
004 RICHTER BRINE WATER						
Date Sampled: 1/21/2010		Time Sampled: 2:15 pm				
.....continued						
Benzo(g,h,i)Perylene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Benzyl Butyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Bis(2-Chloroethyl)Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Bis(2-Chloroethoxy)Methane	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Bis(2-Ethylhexyl)Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Bis(2-ChloroisoPropyl) Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST
4-Bromophenyl Phenyl Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2-Chloronaphthalene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
4-Chlorophenyl Phenyl Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Chrysene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Dibenzo(A,H)Anthracene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Di-N-Butyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
3,3'-Dichlorobenzidine	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Diethyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Dimethyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2,4-Dinitrotoluene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2,6-Dinitrotoluene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Di-N-Octyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Fluoranthene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Fluorene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Hexachlorobenzene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Hexachlorobutadiene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Hexachloroethane	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Hexachlorocyclopentadiene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Indeno(1,2,3-Cd)Pyrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Isophorone	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Naphthalene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Nitrobenzene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
N-Nitrosodi-N-Propylamine	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Phenanthrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Pyrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
1,2,4-Trichlorobenzene	EPA 625	<10	µg/L	2/5/2010	6:12	OST



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TEST	METHOD	RESULT	UNITS	ANALYSIS		TECH	ACCRED.
				DATE	TIME		
007 RICHTER BRINE WATER							
	Date Sampled: 1/21/2010			Time Sampled: 2:15 pm			
Solids, Dissolved	SM 2540 C	289000	mg/L	1/28/2010	15:30	DS	36 ◆
Solids, Suspended	SM 2540 D	94	mg/L	1/27/2010	14:00	DS	36 ◆
Solids, Total	EPA 1579 160.3	303000	mg/L	1/22/2010	15:30	DS	36 ◆
pH -Exceeds 15Min Hold Time	SM 4500-H+ B	5.3	Units	1/22/2010	14:00	DS	36 ◆

Sample collected by Microbac personnel in accordance with the respective Microbac/Erie Sampling SOP for the Matrix

All samples received in proper condition and results conform to ISO 17025 unless otherwise noted

Accred.

- ☞ This symbol at the end of the test line means the test analysis met the requirements of NELAC (PA ID 25-00067)
- ◆ This symbol at the end of the test line means the test analysis met the requirements of AIHA (ID 100386)
- ◆ This symbol at the end of the test line means the test analysis met the requirements of NY ELAP (NY ID 10121)

ABBREVIATIONS:

- | | | | |
|----------|---------------------------------------|----------|---|
| MG/KG | = Milligram per Kilogram (PPM) | Negative | = Bacteria or target analyte not detected |
| UG/L | = Microgram s per Liter (FPB) | CFU | = Colony Forming Unit |
| UG/KG | = Microgram s per Kilogram (FPB) | ND | = Not detected or below the reporting limit |
| MG/L | = Milligram s per Liter (PPM) | TIC | = Tentatively Identified Compound |
| 1000 UG | = 1 MG | ± | = less than (also see "ND") |
| Positive | = Bacteria or target analyte detected | > | = Greater than |

or any feedback concerning our services, please contact Cheri Brolaski, Laboratory Director at cbrolaski@microbac.com or James Nokes, resident at president@microbac.com



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TOTAL P. 07

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**New York State Department of Environmental Conservation
Division of Materials Management, Region 9**

270 Michigan Ave, Buffalo, New York 14203-2915
Phone: (716) 851-7220 Fax: 716-851-7226
Website: www.dec.ny.gov



Joe Martens
Commissioner

November 13, 2012

DPW Supervisor Thomas R. Pilling
Village of Lakewood
20 West Summit St.
Lakewood, New York 14750

Dear Mr. Pilling:

The Department has information that the Village of Lakewood may be utilizing waste brine for ice and/or dust control on the Village roads. A Beneficial Use Determination (BUD) is required from New York State to use waste brine in this manner. Enclosed is the guidance on the information required to obtain a BUD from New York State. Also depending on where this waste brine is obtained, a 6NYCRR Part 364 waste transporter permit may be required.

Please contact Mr. Steve Condon of our Division of Materials Management at 518-402-8706 to discuss this matter.

Sincerely,

Nancy J. Loster
Env. Engineering Technician III

NJL:deg
loster\pilling-nov1.ltr

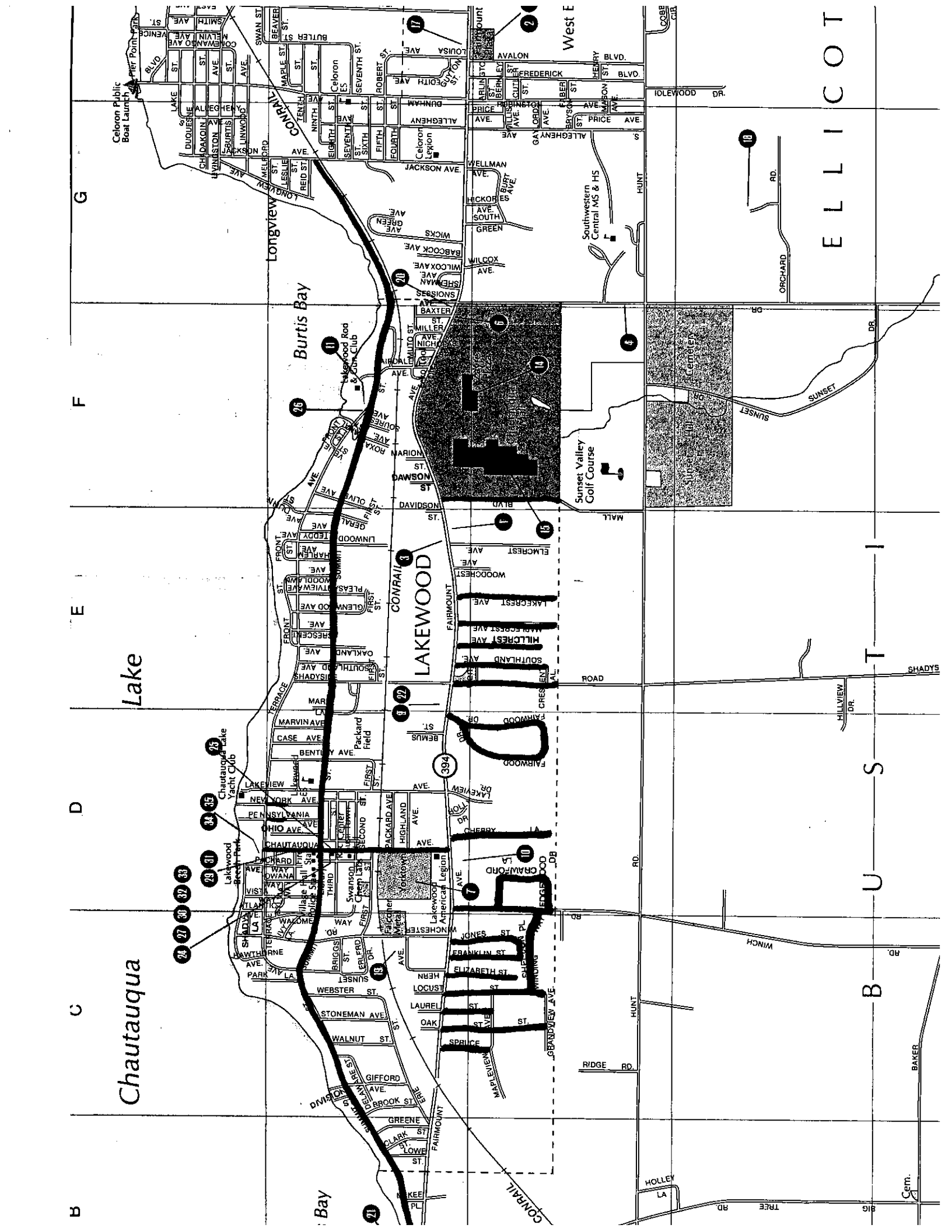
Enclosure

cc: Mr Steve Condon, NYSDEC Albany Office (Code 7253)
Mayor David Wordelman, Lakewood, NY 14750
Mr. Mark Hans, Regional Materials Management Engineer

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NYSDEC

NOV 19 2012

DIRECTOR'S OFFICE
DIV. OF MATERIALS MANAGEMENT



Chautauqua

Lake

Burtis Bay

LAKWOOD

Sunset Valley Golf Course

Southwestern Central MS & HS

ELLI COT

S U N S E T

G

F

E

D

C

B

Celoron Public Boat Launch

Chautauqua Lake Yacht Club

Sunset Valley Golf Course

Cem.

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

JAN 25 2013

Mr. Greg Hallberg
Highway Superintendent
Town of Ellery
4350 Dutch Hollow Rd.
PO Box 429
Bemus Point, NY 14712

Dear Mr. Hallberg:

Re: Brine Bud # **B059-13** - Deicing Agent

We have reviewed the information submitted in your January 9, 2013 request for the proposed beneficial use of brine from your storage tank located at your address in Bemus Point, New York as part of your snow and ice control systems. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- Town of Ellery vehicles that apply brine supplied from storage tanks do not require a Part 364 permit, as long as vendor vehicles transporting brine to the tanks have a valid permit and these storage tanks are listed as destination facilities on the permit.
- Deicing activities must be conducted in accordance with procedures described in your BUD petition and applied in accordance with NYSDOT Office of Operations Management Highway Maintenance Guidelines for Snow and Ice control. Brine must be applied by use of a spreader bar or similar spray device with shut off controls in the cab of the truck and with vehicular equipment that is dedicated to this use or cleaned of previously transported waste materials.
- Brine may be used to treat bridge surfaces when deemed necessary for public safety, but must not be applied in a manner that could cause liquid to flow or run off into streams, creeks, lakes and other bodies of water.

Brine is approved for road spreading use on all Town of Ellery roads, as well as Village of Bemus Point roads as shown on the enclosed map. Brine may be applied a maximum of thirty times on any section of roadway during a season. Please contact this office should the need arise to increase the application frequency or add additional roads. In addition, a brine sample may be required in order to update the chemical analysis on file. Staff would be in contact for a convenient date and time.

Town of Ellery
Greg A. Hallberg
Highway Superintendent

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NYSDEC

JAN 17 2013

DIRECTOR'S OFFICE
DIV. OF MATERIALS MANAGEMENT
4350 Dutch Hollow Rd
PO Box 429
Bemus Point, NY 14712

Phone (716) 386-7222
Cell Phone (716) 499-7222
Fax (716) 386-3504

January 9, 2013

Mr. Steve Condon
N.Y.S.D.E.C.
625 Broadway
Albany, N.Y. 12233-7253

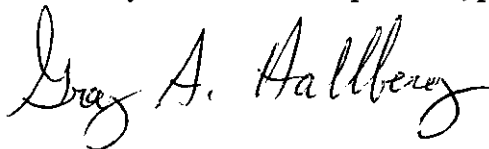
Dear Mr. Condon,

As the highway superintendent of the Town of Ellery in Chautauqua County, I am seeking approval to use salt brine on my roads for deicing. We have 62 miles of town roads and 3.5 miles in the Village of Bemus Point that we take care of for snow removal and deicing.

We use the brine on our rural roads, and strait salt on our more populated areas. We have a 1500 gallon tank on a single axle truck with a spreader bar and air controls in the cab. The brine is applied in accordance with NYS DOT guidelines for anti-icing with liquids. Enclosed is a map of the town with the roads highlighted that we brine, also the chemical analysis from the two well companies that we get brine from.

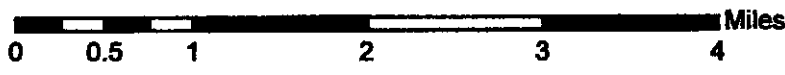
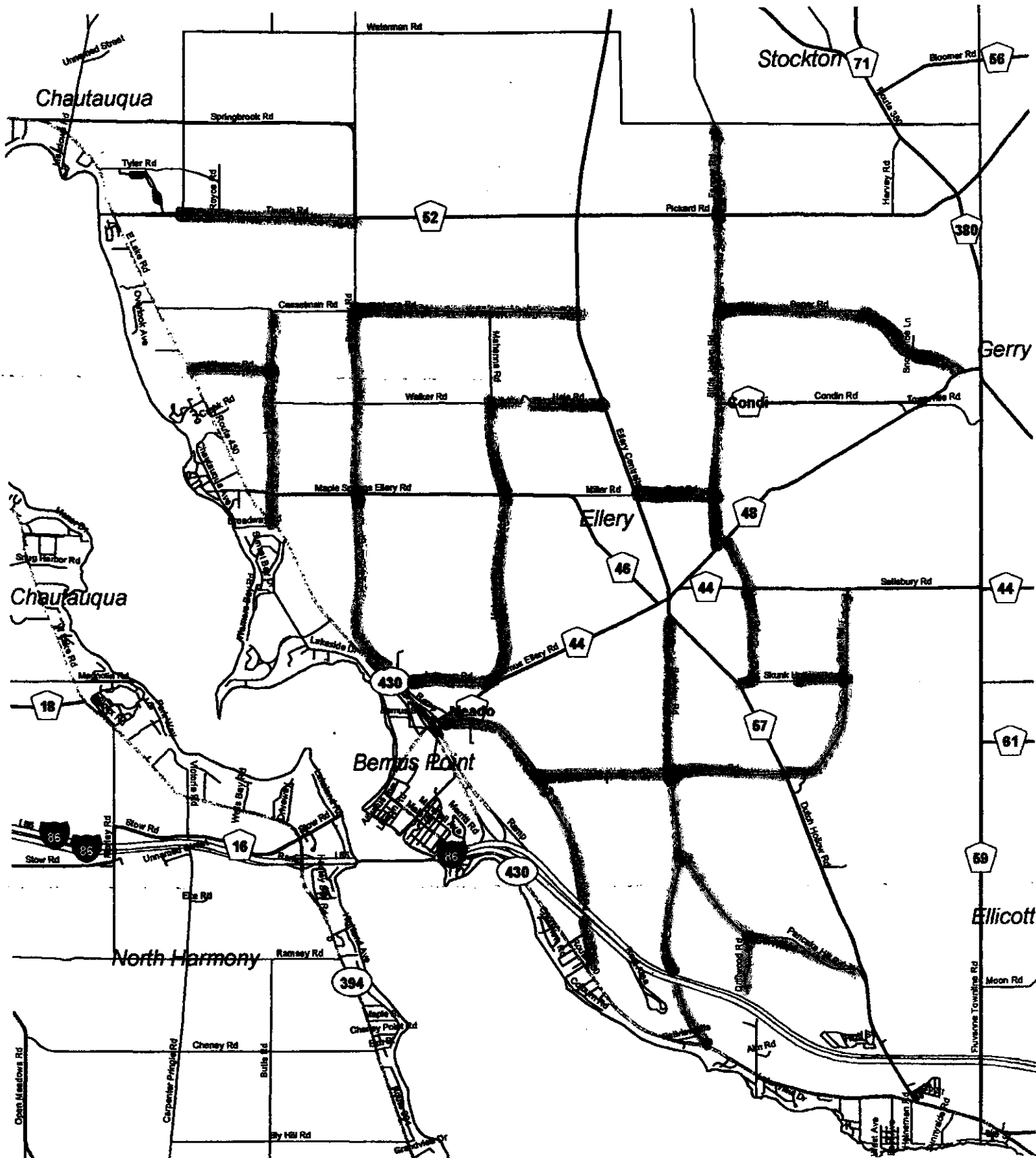
For on site storage. We have a steel tank at the above address with a 20,000 gallon capacity with a clay lined dike around it and plastic and pea stone for secondary containment.

If you have further questions, please contact me.



Greg A. Hallberg
Highway Superintendent

Town of Ellery



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CHERI BROLASKI, LABORATORY DIRECTOR

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PRELIMINARY CERTIFICATE OF ANALYSIS

S. ST. GEORGE ENTERPRISES INC.
3689 WEBSTER ROAD
FREDONIA, NY 14063

Date Reported
Date Received 1/22/2010
Order Number 1001-03777
Invoice No.
Cust # 019448
Sampler AMF

Permit No.
Cust P.O.

SUBJECT: SAMPLES FOR ANALYSIS

TEST	METHOD	RESULT	UNITS	ANALYSIS		
				DATE	TIME	TECH ACCRED.
001. RICHTER BRINE WATER						
Date Sampled: 1/21/2010		Time Sampled: 2:15 pm				
Metals By ICP	EPA 200.7			2/2/2010	15:09	MWR
Cadmium	EPA 200.7	<0.050	mg/L	2/2/2010	15:09	MWR %
Chromium	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR %
Copper	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR %
Lead	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR %
Nickel	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR %
Silver	EPA 200.7	<0.100	mg/L	2/2/2010	15:09	MWR %
Zinc	EPA 200.7	0.278	mg/L	2/2/2010	15:09	MWR %
Mercury	SM 3112 B	<0.002	mg/L	1/29/2010	11:17	BJJ %
002. RICHTER BRINE WATER						
Date Sampled: 1/21/2010		Time Sampled: 2:15 pm				
Pesticide, Organochlorin, PCB	EPA 608			2/5/2010	17:05	DJS
Alpha BHC	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
gamma BHC (Lindane)	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Beta BHC	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Heptachlor	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Delta BHC	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Aldrin	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Heptachlor Epoxide	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Endosulfan I	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
4,4'-DDE	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Dieldrin	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Endrin	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
4,4'-DDD	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Endosulfan II	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
4,4'-DDT	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Endrin Aldehyde	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Endosulfan Sulfate	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Chlordane	EPA 608	<0.04	µg/L	2/5/2010	17:05	DJS %
Toxaphene	EPA 608	<0.4	µg/L	2/5/2010	17:05	DJS %
PCB-1016	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS %



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Cust # 019448
Sampler AMF

Permit No.
Cust P.O.

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TEST	METHOD	RESULT	UNITS	ANALYSIS		
				DATE	TIME	TECH ACCRED.
002 RICHTER BRINE WATER						
Date Sampled: 1/21/2010		Time Sampled: 2:15 pm				
.....continued						
PCB-1221	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS ☺
PCB-1232	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS ☺
PCB-1242	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS ☺
PCB-1248	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS ☺
PCB-1254	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS ☺
PCB-1260	EPA 608	<0.5	µg/L	2/5/2010	17:05	DJS ☺
003 RICHTER BRINE WATER						
Date Sampled: 1/21/2010		Time Sampled: 2:15 pm				
Volatile Organics	EPA 624			1/27/2010	9:26	JFR
Acrolein	EPA 624	<50	µg/L	1/27/2010	9:26	JFR ☺
Acrylonitrile	EPA 624	<50	µg/L	1/26/2010	8:48	JFR ☺
Benzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Bromodichloromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Bromoform	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Bromomethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Carbon Tetrachloride	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Chlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Chloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
2-Chloroethyl Vinyl Ether	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Chloroform	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Chloromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Dibromochloromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
1,2-Dichlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
1,3-Dichlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
1,4-Dichlorobenzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
1,1-Dichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Dichlorodifluoromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
1,2-Dichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
1,1-Dichloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺
Trans-1,2-Dichloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR ☺



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STATE CERT ID.

25-067, 10121

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FREDONIA, NY 14063

Date Reported
Date Received 1/22/2010
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Invoice No.
Cust # 019448
Sampler AMF

Permit No.
Cust P.O.

SUBJECT: SAMPLES FOR ANALYSIS

TEST	METHOD	RESULT	UNITS	ANALYSIS			TECH	ACCRED.
				DATE	TIME			
003: RICHTER BRINE WATER								
Date Sampled: 1/21/2010				Time Sampled: 2:15 pm				
.....continued								
1,2-Dichloropropane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
cis-1,3-Dichloropropene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
Trans-1,3-Dichloropropene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
Ethyl Benzene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
Methylene Chloride	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
1,1,2,2-Tetrachloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	◆
Tetrachloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
Toluene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
1,1,1-Trichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	◆
1,1,2-Trichloroethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	◆
Trichloroethene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
Trichlorofluoromethane	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
Vinyl Chloride	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
Xylenes	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
Acetone	EPA 624	<15	µg/L	1/26/2010	8:48	JFR	%	
2-Hexanone	EPA 624	431	µg/L	1/26/2010	8:48	JFR	%	
Methyl Ethyl Ketone	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
Methyl Isobutyl Ketone	EPA 624	<100	µg/L	1/27/2010	9:26	JFR	%	
Methyl-Tert-Butyl Ether	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
Naphthalene	EPA 624	<5	µg/L	1/26/2010	8:48	JFR	%	
cis-1,2-Dichloroethylene	EPA 624	<5	µg/L	1/27/2010	9:26	JFR	%	
		<5	µg/L	1/26/2010	8:48	JFR	%	

04: RICHTER BRINE WATER

Date Sampled: 1/21/2010				Time Sampled: 2:15 pm			
Base Neutrals (NYS)	EPA 1994 625		ppb	2/5/2010	6:12	OST	
Acenaphthene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Anthracene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Benzo(A)Anthracene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Benzo(B)Fluoranthene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Benzo(K)Fluoranthene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
Benzo(A)Pyrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST	
		<10	µg/L	2/5/2010	6:12	OST	



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Sampler AMP

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Cust P.O.

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TEST	METHOD	RESULT	UNITS	ANALYSIS		
				DATE	TIME	TECH ACCRED.
004 RICHTER BRINE WATER						
Date Sampled: 1/21/2010		Time Sampled: 2:15 pm				
.....continued						
Benz(a,h,i)Perylene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Benzyl Butyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Bis(2-Chloroethyl)Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Bis(2-Chloroethoxy)Methane	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Bis(2-Ethylhexyl)Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Bis(2-Chloroisopropyl) Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST
4-Bromophenyl Phenyl Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2-Chloronaphthalene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
4-Chlorophenyl Phenyl Ether	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Chrysene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Dibenzo(A,H)Anthracene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Di-N-Butyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
3,3'-Dichlorobenzidine	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Diethyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Dimethyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2,4-Dinitrotoluene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2,6-Dinitrotoluene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Di-N-Octyl Phthalate	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Fluoranthene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Fluorene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Hexachlorobenzene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Hexachlorobutadiene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Hexachloroethane	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Hexachlorocyclopentadiene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Indeno(1,2,3-Cd)Pyrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Isophorone	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Naphthalene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Nitrobenzene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
N-Nitrosodi-N-Propylamine	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Phenanthrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Pyrene	EPA 625	<10	µg/L	2/5/2010	6:12	OST
1,2,4-Trichlorobenzene	EPA 625	<10	µg/L	2/5/2010	6:12	OST



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				DATE	TIME	TECH ACCRED.
004 RICHTER BRINE WATER						
Date Sampled: 1/21/2010						
Time Sampled: 2:15 pm						
continued						
Date Of Extraction		020510		2/5/2010	6:12	OST
Sub 625Bn NYS		077061		1/25/2010	14:23	CMC
Acid Extractables (NYS)	EPA 625			2/5/2010	6:12	OST
4-Chloro-3-Methylphenol	EPA 625	<26	µg/L	2/5/2010	6:12	OST
2-Chlorophenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2,4-Dichlorophenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2,4-Dimethylphenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2,4-Dinitrophenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
2-Methyl-4,6-Dinitrophenol	EPA 625	<26	µg/L	2/5/2010	6:12	OST
2-Nitrophenol	EPA 625	<26	µg/L	2/5/2010	6:12	OST
4-Nitrophenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Pentachlorophenol	EPA 625	<26	µg/L	2/5/2010	6:12	OST
Phenol	EPA 625	<26	µg/L	2/5/2010	6:12	OST
2,4,6-Trichlorophenol	EPA 625	<10	µg/L	2/5/2010	6:12	OST
Date Of Extraction		<10	µg/L	2/5/2010	6:12	OST
Sub 625NYS		2-5-2010		2/5/2010	6:12	OST
		077061		1/25/2010	15:00	CMC

THE TECH INITIALS "OST" (OUTSIDE TESTING) INDICATE THAT THE 625 ANALYSES WERE SUB-CONTRACTED TO MICROBAC NEW YORK DIVISION (W.O. 1001406).

105 RICHTER BRINE WATER						
Date Sampled: 1/21/2010						
Time Sampled: 2:15 pm						
Phenolics, Total	EPA 420.2/420.4	0.016	mg/L	2/8/2010	13:31	OST
Sub Phenol		077016		1/27/2010	13:57	CMC

THE TECH INITIALS "OST" (OUTSIDE TESTING) INDICATE THAT THESE ANALYSES WERE SUB-CONTRACTED TO MICROBAC LABORATORIES, INC./CAMPHILL DIVISION. (W.O. 1001-02111).

06 RICHTER BRINE WATER						
Date Sampled: 1/21/2010						
Time Sampled: 2:15 pm						
TPH, Grav.	EPA 1664A	<5	mg/L	2/1/2010	7:00	CAP



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Microbac Laboratories, Inc.

Erie Division

1962 Wager Road • Erie, PA 16509 • Phone: 814-825-8533 • Fax: 814-825-9254

Cheri Estes, Managing Director • E-mail: erie@microbac.com • http://www.microbac.com

CERTIFICATE OF ANALYSIS

Work Order Number:

12B1972

Atlas Energy Resources
Attn: Brian Klink
3500 Massillon Road
Union Town, OH 44685

Date Reported 03/05/2012
Date Received 02/20/2012
Account Number 000000001368



Purchase Order:

Subject: Drum Sampling and Analysis

ANALYSIS

SMP	TEST	METHOD	RESULT	UNITS	DATE	TIME	TECH	NOTES
01 Brine Sample for Deraat #2								
Sample Date: 02/17/2012								
	Calcium Chloride	Calculation	7.72	% by Weight	02/21/12	10:11	MWR	
	Calcium Chloride	Calculation	0.774	lbs/gal	02/21/12	10:11	MWR	
	Chloride	ASTM D512-89A	175000	mg/L	03/01/12	14:00	CMF	
	Chlorides, total	Calculation	24.4	% by Weight	02/21/12	10:11	MWR	
	Chlorides, total	Calculation	2.45	lbs/gal	02/21/12	10:11	MWR	
	Magnesium Chloride	Calculation	0.990	% by Weight	02/21/12	10:11	MWR	
	Magnesium Chloride	Calculation	0.0990	lbs/gal	02/21/12	10:11	MWR	
	Potassium Chloride	Calculation	0.220	% by Weight	02/21/12	10:11	MWR	
	Potassium Chloride	Calculation	0.0220	lbs/gal	02/21/12	10:11	MWR	
	Sodium Chloride	Calculation	15.51	% by Weight	02/21/12	10:11	MWR	
	Sodium Chloride	Calculation	1.554	lbs/gal	02/21/12	10:11	MWR	
	Specific Gravity	ASTM D1429	1.20		02/21/12	10:11	MWR	
	Weight of One Gallon of Brine	Calculation	10.02	lbs/gal	02/21/12	10:11	MWR	
	Calcium	EPA 200.7	33500	mg/L	02/21/12	10:11	MWR	
	Magnesium	EPA 200.7	3040	mg/L	02/21/12	10:11	MWR	
	Potassium	EPA 200.7	1370	mg/L	02/21/12	10:11	MWR	
	Sodium	EPA 200.7	73500	mg/L	02/21/12	10:11	MWR	
02 Brine Sample for Morton #1B								
Sample Date: 02/17/2012								
	Calcium Chloride	Calculation	9.51	% by Weight	02/21/12	10:11	MWR	
	Calcium Chloride	Calculation	0.961	lbs/gal	02/21/12	10:11	MWR	
	Chloride	ASTM D512-89A	173000	mg/L	03/01/12	14:00	CMF	
	Chlorides, total	Calculation	24.3	% by Weight	02/21/12	10:11	MWR	
	Chlorides, total	Calculation	2.46	lbs/gal	02/21/12	10:11	MWR	

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ADHA accredited for Environmental Lead. Visit our website to view our current ADHA LAP, LLC accreditation.



New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

JAN 25 2013

Mr. Jeff Feinan
Highway Superintendent
Town of Sheridan
2773 Rte. 20, P.O. Box 116
Sheridan, NY 14135

Dear Mr. Feinan:

Re: Brine Bud # **B060-13** - Deicing Agent

We have reviewed the information submitted in your December 26, 2012 request for the proposed beneficial use of brine from your storage tank located at your address Sheridan, New York as part of your snow and ice control systems. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

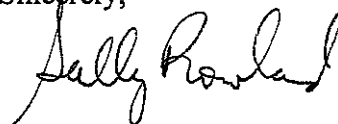
- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- Town of Sheridan vehicles that apply brine supplied from storage tanks do not require a Part 364 permit, as long as vendor vehicles transporting brine to the tanks have a valid permit and these storage tanks are listed as destination facilities on the permit.
- Deicing activities must be conducted in accordance with procedures described in your BUD petition and applied in accordance with NYSDOT Office of Operations Management Highway Maintenance Guidelines for Snow and Ice control. Brine must be applied by use of a spreader bar or similar spray device with shut off controls in the cab of the truck and with vehicular equipment that is dedicated to this use or cleaned of previously transported waste materials.
- Brine may be used to treat bridge surfaces when deemed necessary for public safety, but must not be applied in a manner that could cause liquid to flow or run off into streams, creeks, lakes and other bodies of water.

Brine is approved for road spreading use on all Town of Sheridan roads as shown on the enclosed map. Brine may be applied a maximum of thirty times on any section of roadway during a season. Please contact this office should the need arise to increase the application frequency or add additional roads. In addition, a brine sample may be required in order to update the chemical analysis on file. Staff would be in contact for a convenient date and time.

You must keep a copy of this letter and the Part 364 permit (if required) in all vehicles transporting or spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

A handwritten signature in cursive script that reads "Sally Rowland".

Sally Rowland, Ph.D., P.E.
Organic Recycling & Beneficial Use Section
Bureau of Waste Reduction & Recycling
Division of Materials Management

Colleen Yerico, Council
Charles Dillenburg, Council

Town of Sheridan
2773 Route 20, P.O. Box 116
Sheridan, N.Y. 14135-0116
Louis Delmonte, Sr., Supervisor
(716) 672-4174
FAX: (716)672-5060
TDD: (716)662-1220

Richard Feinen, Council
Amy Farnham, Council

RECEIVED
NYSDEC

JAN 08 2013

DIRECTOR'S OFFICE
DIV. OF MATERIALS MANAGEMENT

December 26, 2012

Nancy Loster
ENV Engineering Tech III
NYS DEC
Division of Materials Management Reg. 9
270 Michigan Avenue
Buffalo, New York 14203-2915

RECEIVED
NYSDEC - REGION 9

JAN 03 2013

FOIL
REL UNREL

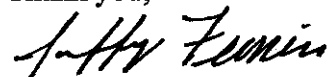
Dear Ms. Loster

In response to your October 3, 2012 letter, I am Requesting a BOD and a 6NYCRR Part 364 Permit on behalf of the Town of Sheridan.

The Town of Sheridan uses brine as an ice control agent. We have one single axle dump truck fitted with a one thousand gallon tank. The tank is fitted with a spreader bar and controlled inside the cab by an air-valve. There is also a manual shut-off on the rear of the tank and brine is applied in the lightest concentration possible for effectiveness, and all care is given as to not allow run-off.

I have enclosed all requested forms and documentation for your review. I may be reached on my cell phone at 716-680-5461, for any questions you may have of me.

Thank you,



Jeff Feinen

The Town of Sheridan is an Equal Opportunity Provider and Employer
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USDA, Director, Office of Civil Rights, Washington, DC 20250-9410

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: 480-2919-8
Client Project/Site: Enviroteknix - COTTON DRILLING

For:
Enviroteknix
302 Lakeshore Dr East
Dunkirk, New York 14048

Attn: Chris Surma

Melissa Deyo

Authorized for release by:
04/12/2011 08:33:22 AM
Melissa Deyo
Project Administrator
melissa.deyo@testamericainc.com

Designee for
Denise Giglia
Project Manager I
denise.giglia@testamericainc.com

LINKS

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www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, 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.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
QC Sample Results	7
QC Association	10
Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Chain of Custody	16
Sample Receipt Checklist	17

Qualifier Definition/Glossary

Client: Enviroteknix
Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

3

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
L	A negative instrument reading had an absolute value greater than the reporting limit

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
✱	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Case Narrative

Client: Enviroteknix
Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

Job ID: 480-2919-8

Laboratory: TestAmerica Buffalo

Narrative

**Job Narrative
480-2919-8**

Receipt

All samples were received in good condition within temperature requirements.

Ion Chromatography

Method 300.0: The following samples were diluted due to the abundance of target analytes Chloride and Sulfate: BRINE (480-2919-13). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals

Method 200.7 Rev 4.4: The following samples was diluted due to the abundance of target analyte Magnesium and Sodium: BRINE (480-2919-13). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

General Chemistry

Method Nitrate by calc: The Nitrate result was derived from a calculation using results from a Nitrate+Nitrite analysis and a Nitrite analysis. The Nitrate calculation date/time reflects the date/time of the Nitrite analysis. An H flag on the calculated Nitrate result indicates that the Nitrate+Nitrite and/or Nitrite analysis was analyzed outside of holding time. Sample BRINE (480-2919-13) was analyzed past holding time for Nitrate+Nitrite analysis due to the sample being received with greater than 50% of the holding time expired.

Method 1664A: Sample BRINE (480-2919-13) had a dilution applied during the preparation portion of the procedure. The dilution factor (DF) presented on the final report represents only the analytical dilution, not the dilution factor applied in the preparation batch.

No other analytical or quality issues were noted.

4

Detection Summary

Client: Enviroteknix
 Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

Client Sample ID: BRINE

Lab Sample ID: 480-2919-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.038	J	0.050	0.028	mg/L		1	200.7 Rev 4.4	Total/NA
Barium	1.1		0.010	0.0025	mg/L		1	200.7 Rev 4.4	Total/NA
Cadmium	0.012		0.0050	0.0017	mg/L		1	200.7 Rev 4.4	Total/NA
Chromium	0.018	J	0.020	0.0044	mg/L		1	200.7 Rev 4.4	Total/NA
Copper	0.094		0.050	0.0075	mg/L		1	200.7 Rev 4.4	Total/NA
Iron	142		0.25	0.097	mg/L		1	200.7 Rev 4.4	Total/NA
Lead	0.041		0.025	0.015	mg/L		1	200.7 Rev 4.4	Total/NA
Magnesium	3530		20.0	4.3	mg/L		20	200.7 Rev 4.4	Total/NA
Manganese	58.0		0.015	0.0015	mg/L		1	200.7 Rev 4.4	Total/NA
Nickel	0.045	J	0.050	0.0063	mg/L		1	200.7 Rev 4.4	Total/NA
Sodium	73900		100	32.4	mg/L		20	200.7 Rev 4.4	Total/NA
Zinc	27.8		0.050	0.0085	mg/L		1	200.7 Rev 4.4	Total/NA
Oil & Grease	527		6.4	1.8	mg/L		1	1664A	Total/NA
SGT-HEM	91.7		6.4	2.5	mg/L		1	1664A	Total/NA
Chloride	289000		2500	1410	mg/L		5000	300.0	Total/NA
Sulfate	403	J	1000	175	mg/L		500	300.0	Total/NA

5

Analytical Data

Client: Enviroteknix
 Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

Client Sample ID: BRINE

Lab Sample ID: 480-2919-13

Date Collected: 03/23/11 14:00

Matrix: Water

Date Received: 03/24/11 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10	0.034	mg/L		03/26/11 13:50	03/28/11 11:23	1
Arsenic	0.038	J	0.050	0.028	mg/L		03/26/11 13:50	03/28/11 11:23	1
Barium	1.1		0.010	0.0025	mg/L		03/26/11 13:50	03/28/11 11:23	1
Beryllium	ND		0.010	0.0015	mg/L		03/26/11 13:50	03/28/11 11:23	1
Cadmium	0.012		0.0050	0.0017	mg/L		03/26/11 13:50	03/28/11 11:23	1
Chromium	0.018	J	0.020	0.0044	mg/L		03/26/11 13:50	03/28/11 11:23	1
Copper	0.094		0.050	0.0075	mg/L		03/26/11 13:50	03/28/11 11:23	1
Iron	142		0.25	0.097	mg/L		03/26/11 13:50	03/28/11 11:23	1
Lead	0.041		0.025	0.015	mg/L		03/26/11 13:50	03/28/11 11:23	1
Magnesium	3530		20.0	4.3	mg/L		03/26/11 13:50	03/30/11 14:38	20
Manganese	58.0		0.015	0.0015	mg/L		03/26/11 13:50	03/28/11 11:23	1
Nickel	0.045	J	0.050	0.0063	mg/L		03/26/11 13:50	03/28/11 11:23	1
Selenium	ND		0.075	0.044	mg/L		03/26/11 13:50	03/28/11 11:23	1
Silver	ND	L	0.015	0.0085	mg/L		03/26/11 13:50	03/28/11 11:23	1
Sodium	73900		100	32.4	mg/L		03/26/11 13:50	03/30/11 14:38	20
Thallium	ND		0.10	0.051	mg/L		03/26/11 13:50	03/28/11 11:23	1
Zinc	27.8		0.050	0.0085	mg/L		03/26/11 13:50	03/28/11 11:23	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/25/11 09:20	03/25/11 13:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	527		6.4	1.8	mg/L		03/28/11 08:32	03/28/11 10:00	1
SGT-HEM	91.7		6.4	2.5	mg/L		03/28/11 08:32	03/28/11 10:00	1
Chloride	289000		2500	1410	mg/L			03/28/11 12:06	5000
Sulfate	403	J	1000	175	mg/L			03/26/11 00:11	500
Cyanide, Total	ND		0.010	0.0050	mg/L		03/25/11 19:33	03/28/11 14:28	1
Nitrate as N	ND		0.050	0.011	mg/L			03/24/11 22:30	1
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		04/06/11 17:47	04/07/11 10:55	1

6

Quality Control Data

Client: Enviroteknix
 Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-9736/1-A
 Matrix: Water
 Analysis Batch: 9847

Client Sample ID: MB 480-9736/1-A
 Prep Type: Total/NA
 Prep Batch: 9736

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		0.020	0.0068	mg/L		03/26/11 13:50	03/28/11 10:21	1
Arsenic	ND		0.010	0.0056	mg/L		03/26/11 13:50	03/28/11 10:21	1
Barium	ND		0.0020	0.00050	mg/L		03/26/11 13:50	03/28/11 10:21	1
Beryllium	ND		0.0020	0.00030	mg/L		03/26/11 13:50	03/28/11 10:21	1
Cadmium	ND		0.0010	0.00033	mg/L		03/26/11 13:50	03/28/11 10:21	1
Chromium	ND		0.0040	0.00087	mg/L		03/26/11 13:50	03/28/11 10:21	1
Copper	ND		0.010	0.0015	mg/L		03/26/11 13:50	03/28/11 10:21	1
Iron	ND		0.050	0.019	mg/L		03/26/11 13:50	03/28/11 10:21	1
Lead	ND		0.0050	0.0030	mg/L		03/26/11 13:50	03/28/11 10:21	1
Magnesium	ND		0.20	0.043	mg/L		03/26/11 13:50	03/28/11 10:21	1
Manganese	ND		0.0030	0.00030	mg/L		03/26/11 13:50	03/28/11 10:21	1
Nickel	ND		0.010	0.0013	mg/L		03/26/11 13:50	03/28/11 10:21	1
Selenium	ND		0.015	0.0087	mg/L		03/26/11 13:50	03/28/11 10:21	1
Silver	ND		0.0030	0.0017	mg/L		03/26/11 13:50	03/28/11 10:21	1
Sodium	ND		1.0	0.32	mg/L		03/26/11 13:50	03/28/11 10:21	1
Thallium	ND		0.020	0.010	mg/L		03/26/11 13:50	03/28/11 10:21	1
Zinc	ND		0.010	0.0017	mg/L		03/26/11 13:50	03/28/11 10:21	1

Lab Sample ID: LCS 480-9736/2-A
 Matrix: Water
 Analysis Batch: 9847

Client Sample ID: LCS 480-9736/2-A
 Prep Type: Total/NA
 Prep Batch: 9736

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec Limits
		Result	Qualifier				
Antimony	0.200	0.209		mg/L		105	85 - 115
Arsenic	0.200	0.204		mg/L		102	85 - 115
Barium	0.200	0.209		mg/L		105	85 - 115
Beryllium	0.200	0.211		mg/L		106	85 - 115
Cadmium	0.200	0.209		mg/L		104	85 - 115
Chromium	0.200	0.210		mg/L		105	85 - 115
Copper	0.200	0.216		mg/L		108	85 - 115
Iron	10.0	9.83		mg/L		98	85 - 115
Lead	0.200	0.204		mg/L		102	85 - 115
Magnesium	10.0	10.10		mg/L		101	85 - 115
Manganese	0.200	0.204		mg/L		102	85 - 115
Nickel	0.200	0.203		mg/L		101	85 - 115
Selenium	0.200	0.207		mg/L		104	85 - 115
Silver	0.0500	0.0556		mg/L		111	85 - 115
Sodium	10.0	10.62		mg/L		106	85 - 115
Thallium	0.200	0.201		mg/L		101	85 - 115
Zinc	0.200	0.202		mg/L		101	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-9568/1-A
 Matrix: Water
 Analysis Batch: 9785

Client Sample ID: MB 480-9568/1-A
 Prep Type: Total/NA
 Prep Batch: 9568

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020	0.00012	mg/L		03/25/11 09:20	03/25/11 13:03	1

TestAmerica Buffalo

7

Quality Control Data

Client: Enviroteknix
Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 480-9568/2-A				Client Sample ID: LCS 480-9568/2-A			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 9785				Prep Batch: 9568			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Mercury	0.00667	0.00683		mg/L		102	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-9789/1-A				Client Sample ID: MB 480-9789/1-A					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 9797				Prep Batch: 9789					
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Oil & Grease	ND		5.0	1.4	mg/L		03/28/11 08:32	03/28/11 09:00	1
SGT-HEM	ND		5.0	1.9	mg/L		03/28/11 08:32	03/28/11 09:00	1

Lab Sample ID: LCS 480-9789/2-A				Client Sample ID: LCS 480-9789/2-A			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 9797				Prep Batch: 9789			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Oil & Grease	25.0	21.50		mg/L		86	78 - 114
SGT-HEM	12.5	8.10		mg/L		65	64 - 132

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-9627/52				Client Sample ID: MB 480-9627/52					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 9627									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Chloride	ND		0.50	0.28	mg/L			03/25/11 22:09	1
Sulfate	ND		2.0	0.35	mg/L			03/25/11 22:09	1

Lab Sample ID: LCS 480-9627/51				Client Sample ID: LCS 480-9627/51			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 9627							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Chloride	20.0	19.86		mg/L		99	90 - 110
Sulfate	20.0	19.35		mg/L		97	90 - 110

Lab Sample ID: MB 480-9820/4				Client Sample ID: MB 480-9820/4					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 9820									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Chloride	ND		0.50	0.28	mg/L			03/28/11 11:56	1
Sulfate	ND		2.0	0.35	mg/L			03/28/11 11:56	1

7

Quality Control Data

Client: Enviroteknix
 Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 480-9820/3				Client Sample ID: LCS 480-9820/3			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 9820							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Chloride	20.0	19.75		mg/L		99	90 - 110
Sulfate	20.0	20.20		mg/L		101	90 - 110

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-9707/1-A				Client Sample ID: MB 480-9707/1-A					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 9754				Prep Batch: 9707					
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		03/25/11 19:33	03/28/11 13:16	1

Lab Sample ID: LCS 480-9707/2-A				Client Sample ID: LCS 480-9707/2-A			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 9754				Prep Batch: 9707			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Cyanide, Total	0.250	0.240		mg/L		96	90 - 110

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-10997/1-A				Client Sample ID: MB 480-10997/1-A					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 11109				Prep Batch: 10997					
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		04/06/11 17:47	04/07/11 09:58	1

Lab Sample ID: LCS 480-10997/2-A				Client Sample ID: LCS 480-10997/2-A			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 11109				Prep Batch: 10997			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Phenolics, Total Recoverable	0.100	0.105		mg/L		105	90 - 110

7

QC Association Summary

Client: Enviroteknix
 Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

Metals

Analysis Batch: 10153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-2919-13	BRINE	Total/NA	Water	200.7 Rev 4.4	9736

Prep Batch: 9568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-9568/1-A	MB 480-9568/1-A	Total/NA	Water	245.1	
480-2919-13	BRINE	Total/NA	Water	245.1	
LCS 480-9568/2-A	LCS 480-9568/2-A	Total/NA	Water	245.1	

Prep Batch: 9736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-9736/1-A	MB 480-9736/1-A	Total/NA	Water	200.7	
LCS 480-9736/2-A	LCS 480-9736/2-A	Total/NA	Water	200.7	
480-2919-13	BRINE	Total/NA	Water	200.7	
480-2919-13	BRINE	Total/NA	Water	200.7	

Analysis Batch: 9785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-9568/1-A	MB 480-9568/1-A	Total/NA	Water	245.1	9568
LCS 480-9568/2-A	LCS 480-9568/2-A	Total/NA	Water	245.1	9568
480-2919-13	BRINE	Total/NA	Water	245.1	9568

Analysis Batch: 9847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-9736/1-A	MB 480-9736/1-A	Total/NA	Water	200.7 Rev 4.4	9736
LCS 480-9736/2-A	LCS 480-9736/2-A	Total/NA	Water	200.7 Rev 4.4	9736
480-2919-13	BRINE	Total/NA	Water	200.7 Rev 4.4	9736

General Chemistry

Prep Batch: 10997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-10997/1-A	MB 480-10997/1-A	Total/NA	Water	Distill/Phenol	
480-2919-13	BRINE	Total/NA	Water	Distill/Phenol	
LCS 480-10997/2-A	LCS 480-10997/2-A	Total/NA	Water	Distill/Phenol	

Analysis Batch: 11109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-10997/1-A	MB 480-10997/1-A	Total/NA	Water	420.4	10997
LCS 480-10997/2-A	LCS 480-10997/2-A	Total/NA	Water	420.4	10997
480-2919-13	BRINE	Total/NA	Water	420.4	10997

Analysis Batch: 9627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-9627/51	LCS 480-9627/51	Total/NA	Water	300.0	
MB 480-9627/52	MB 480-9627/52	Total/NA	Water	300.0	
480-2919-13	BRINE	Total/NA	Water	300.0	

Analysis Batch: 9636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-2919-13	BRINE	Total/NA	Water	353.2	

8

QC Association Summary

Client: Enviroteknix
 Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

General Chemistry (Continued)

Prep Batch: 9707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-9707/1-A	MB 480-9707/1-A	Total/NA	Water	Distill/CN	
LCS 480-9707/2-A	LCS 480-9707/2-A	Total/NA	Water	Distill/CN	
480-2919-13	BRINE	Total/NA	Water	Distill/CN	

Analysis Batch: 9754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-2919-13	BRINE	Total/NA	Water	335.4	9707
MB 480-9707/1-A	MB 480-9707/1-A	Total/NA	Water	335.4	9707
LCS 480-9707/2-A	LCS 480-9707/2-A	Total/NA	Water	335.4	9707

Prep Batch: 9789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-9789/1-A	MB 480-9789/1-A	Total/NA	Water	1664A	
LCS 480-9789/2-A	LCS 480-9789/2-A	Total/NA	Water	1664A	
480-2919-13	BRINE	Total/NA	Water	1664A	

Analysis Batch: 9797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-9789/1-A	MB 480-9789/1-A	Total/NA	Water	1664A	9789
LCS 480-9789/2-A	LCS 480-9789/2-A	Total/NA	Water	1664A	9789
480-2919-13	BRINE	Total/NA	Water	1664A	9789

Analysis Batch: 9820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-9820/3	LCS 480-9820/3	Total/NA	Water	300.0	
MB 480-9820/4	MB 480-9820/4	Total/NA	Water	300.0	
480-2919-13	BRINE	Total/NA	Water	300.0	

8

Lab Chronicle

Client: Enviroteknix
 Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

Client Sample ID: BRINE

Lab Sample ID: 480-2919-13

Date Collected: 03/23/11 14:00

Matrix: Water

Date Received: 03/24/11 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			9736	03/26/11 13:50	MM	TestAmerica Buffalo
Total/NA	Analysis	200.7 Rev 4.4		20	10153	03/30/11 14:38	LH	TestAmerica Buffalo
Total/NA	Prep	245.1			9568	03/25/11 09:20	JRK	TestAmerica Buffalo
Total/NA	Analysis	245.1		1	9785	03/25/11 13:40	JRK	TestAmerica Buffalo
Total/NA	Analysis	200.7 Rev 4.4		1	9847	03/28/11 11:23	LH	TestAmerica Buffalo
Total/NA	Prep	Distill/Phenol			10997	04/06/11 17:47	JN	TestAmerica Buffalo
Total/NA	Analysis	420.4		1	11109	04/07/11 10:55	JM	TestAmerica Buffalo
Total/NA	Analysis	300.0		500	9627	03/26/11 00:11	RMM	TestAmerica Buffalo
Total/NA	Analysis	353.2		1	9636	03/24/11 22:30	LRM	TestAmerica Buffalo
Total/NA	Prep	Distill/CN			9707	03/25/11 19:33	ML	TestAmerica Buffalo
Total/NA	Analysis	335.4		1	9754	03/26/11 14:28	JR	TestAmerica Buffalo
Total/NA	Prep	1664A			9789	03/28/11 08:32	JM	TestAmerica Buffalo
Total/NA	Analysis	1664A		1	9797	03/28/11 10:00	JM	TestAmerica Buffalo
Total/NA	Analysis	300.0		5000	9820	03/28/11 12:06	RMM	TestAmerica Buffalo

9

Certification Summary

Client: Enviroteknix
 Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo		USDA		P330-08-00242
TestAmerica Buffalo	Arkansas	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	Georgia EPD	4	N/A
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	Kentucky UST	4	30
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	West Virginia	West Virginia DEP	3	252
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

10

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Enviroteknix
Project/Site: Enviroteknix - COTTON DRILLING

TestAmerica Job ID: 480-2919-8

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
353.2	Nitrate	EPA	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

11

Login Sample Receipt Checklist

Client: Enviroteknix

Job Number: 480-2919-8

Login Number: 2919

List Source: TestAmerica Buffalo

List Number: 1

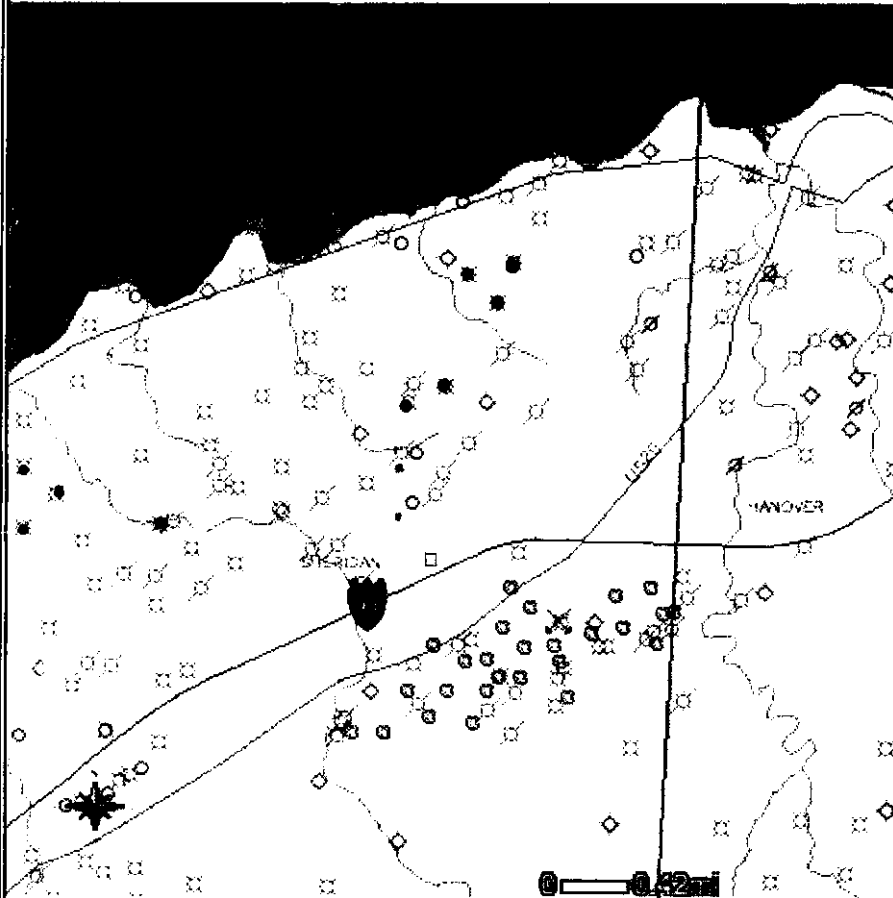
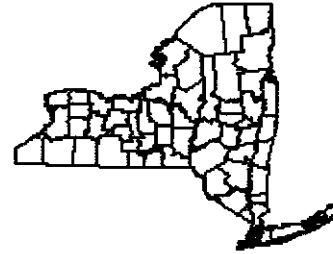
Creator: Janish, Carl

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ENVIROTEKNIX
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

14

COTTON WELLS - TOWN OF SHERIDAN

Medina Formation



Mines

- Consolidated Mine
- Consolidated Mine Reclaimed
- Unconsolidated Mine
- Unconsolidated Mine Reclaimed
- Underground Mine
- Underground Mine Reclaimed

Regulated Wells

- Gas Well
- Gas Well Plugged
- Oil Well
- Oil Well Plugged
- Gas Storage Well
- Gas Storage Well Plugged
- Solution Mining Well
- Solution Mining Well Plugged
- Confidential Well
- Dry Hole
- Other Well
- Other Well Plugged

DEC Regional Offices

- Interstate Highways
- State and US Highways
- US
- State
- Parkway
- Other

Streams and Ponds

- Rivers and Lakes
- Towns
- Counties

25542- ARK #1
 25543- ARK #2
 25519- ARK #3

Munch-24189
 Smith-24617

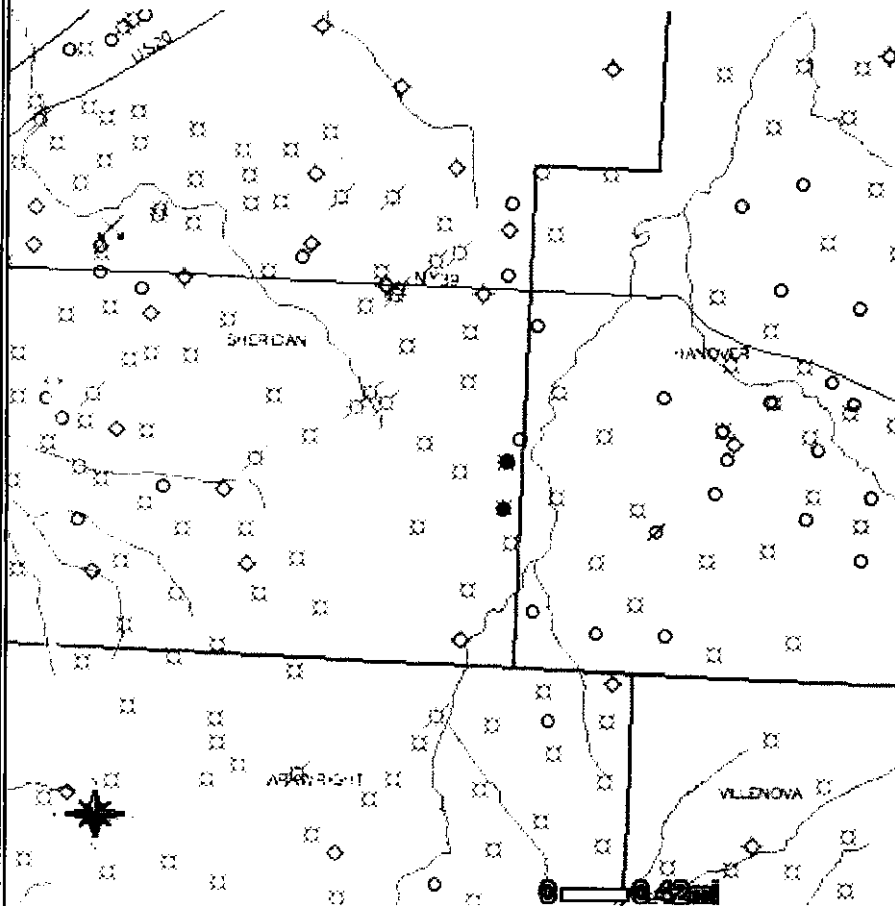
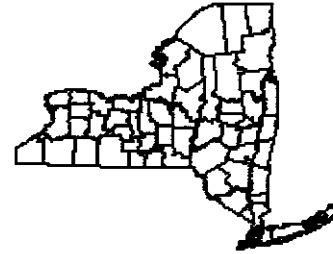
27640- Opeil #1
 27544- Opeil #2

27691- Opeil #3

15601- Pagano

COTTON WELLS - TOWN OF SHERIDAN #2

Medina Formation



27519 - Duff #1
 27520 - Duff #2

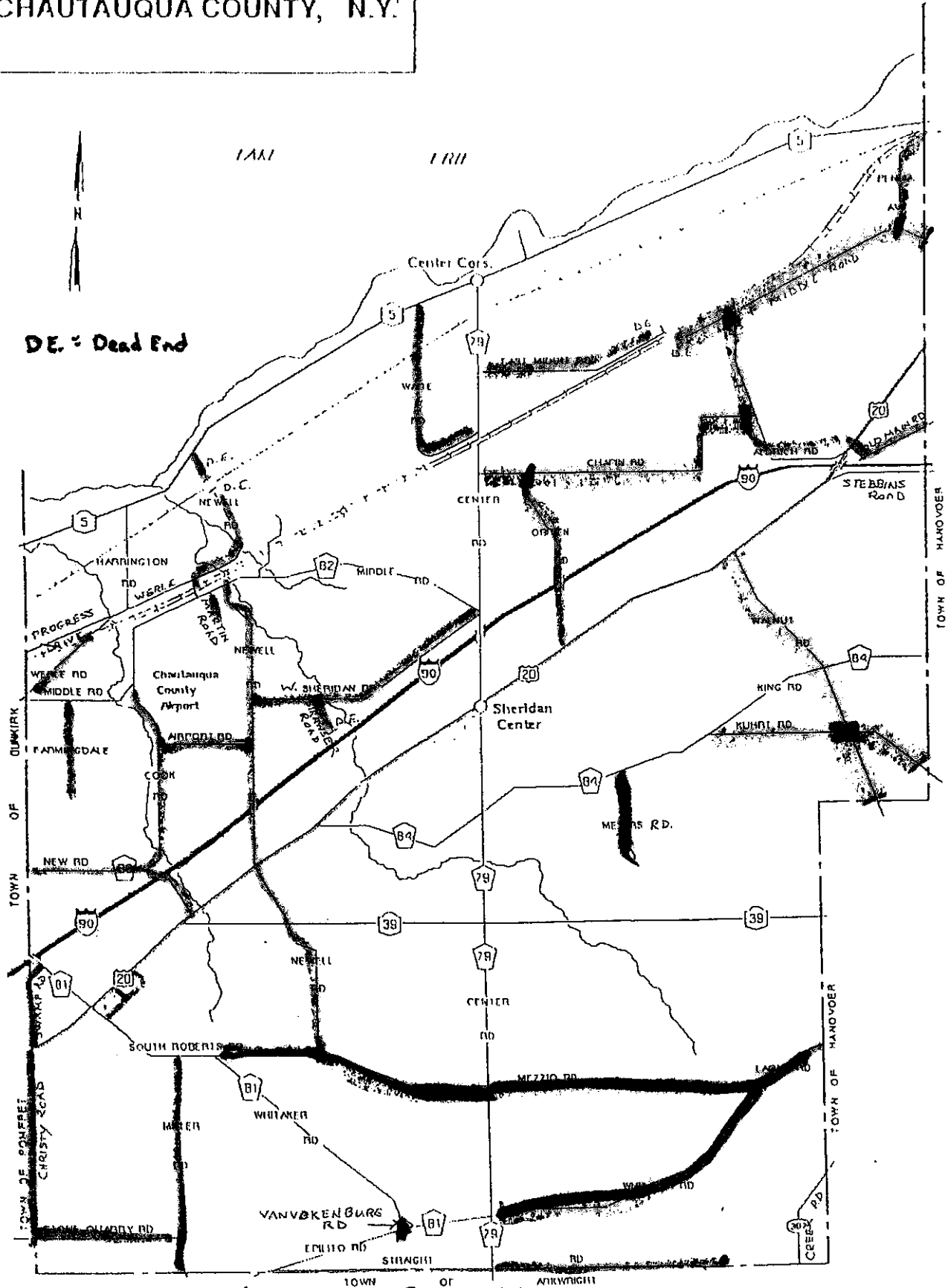
Mines

- ✕ Consolidated Mine
- △ Consolidated Mine Reclaimed
- ✕ Unconsolidated Mine
- ⊠ Unconsolidated Mine Reclaimed
- ▣ Underground Mine
- ▣ Underground Mine Reclaimed

Regulated Wells

- ⊠ Gas Well
- ⊠ Gas Well Plugged
- Oil Well
- ⊠ Oil Well Plugged
- ⊠ Gas Storage Well
- Gas Storage Well Plugged
- Solution Mining Well
- Solution Mining Well Plugged
- Confidential Well
- ◇ Dry Hole
- Other Well
- ⊠ Other Well Plugged
- DEC Regional Offices
- Interstate Highways
- State and US Highways
- US
- State
- Parkway
- Other
- Streams and Ponds
- Rivers and Lakes
- Towns
- Counties

TOWN OF SHERIDAN CHAUTAUQUA COUNTY, N.Y.



Roads that the Town of Sheridan maintains are Highlighted CHAUTAUQUA COUNTY GENEALOGICAL SOCIETY

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

APR 16 2013

Mr. Scott Trisket
Highway Superintendent
Town of Clymer
P.O. Box 274 8026 Rt 474
Clymer, New York 14724

Dear Mr. Trisket:

Re: Brine Beneficial Use Determination (BUD) # B061-13 - Deicing Agent,
Dust Control/Road Stabilization

We have reviewed the information submitted in your April 1, 2013 request for the proposed beneficial use of brine from your storage tank located at your facility on Route 474, Clymer, New York as part of your snow, ice and dust control systems. Brine in this storage tank is limited to onsite well production and we have reviewed the analytical data provided by the town. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- Deicing activities must be conducted in accordance with procedures described in your BUD petition and applied in accordance with NYSDOT Office of Operations Management Highway Maintenance Guidelines for Snow and Ice control. Brine must be applied by use of a spreader bar or similar spray device with shut off controls in the cab of the truck and with vehicular equipment that is dedicated to this use or cleaned of previously transported waste materials.
- Brine may be used to treat bridge surfaces when deemed necessary for public safety, but must not be applied in a manner that could cause liquid to flow or run off into streams, creeks, lakes and other bodies of water.
- Dust control activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied after daylight hours or used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be applied on wet roads, during rain, or when rain is imminent.

Brine is approved for road spreading use on all Town of Clymer roads as shown on the submitted map. Brine may be applied a maximum of thirty times on any section of roadway during a season. Please contact this office should the need arise to increase the application frequency or add additional roads. In addition, a brine sample will be required in order to update the chemical analysis on file. Staff will be in contact for a convenient date and time.

You must keep a copy of this letter and the Part 364 permit (if required) in all vehicles transporting or spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,



Sally Rowland, Ph.D., P.E.
Organic Recycling & Beneficial Use Section
Bureau of Waste Reduction & Recycling
Division of Materials Management

bcc: (email) P. Pettit/S. Rowland/S. Condon/ P. Leonardo
SC:ks
C:\IWPDOCS\Condon\Brine_Letter_clymer.docx

London

Town Of Clymer Highway Department
P.O. Box 274 8026 RT 474
Clymer, New York 14724

BUD petition for Road de-icing, dust suppression and road stabilization

Town of Clymer Highway Dept
Scott Trisket - Highway Superintendent
P.O. Box 274 8026 Rt 474
Clymer, NY 14724
(716) 355-9933

RECEIVED
NYS DEC
APR 01 2013
DIV. OF MATERIALS MANAGEMENT

- Map attached of the roads where brine will be used.
- Brine Storage Location: Chautauqua County tank located at 8026 Rt 474 Clymer, NY 14724
- Analytical Results attached
- Road Spreading procedures

- Brine will be applied with a 1000 gallon tank installed on a single axle dump truck. The tank is gravity fed through an air operated valve with the controls being in the cab of the truck, and also a ball valve between the air valve and spreader bar. The tank is dedicated for brine use. The rate of application is estimated at 10-20 gallons/min.

Dust Control/Road Stabilization

- Brine will not be spread on wet roads, while raining or if rain is imminent. Within 50 ft of stream, creek, lake or other body of water. Roads with a slope greater 10% and not spread after daylight hours.

Road De-Icing

- Brine will be applied in accordance to NYSDOT guidelines for Anti-Icing with liquids as ice and build up is present.

Brine Storage

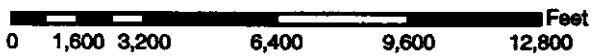
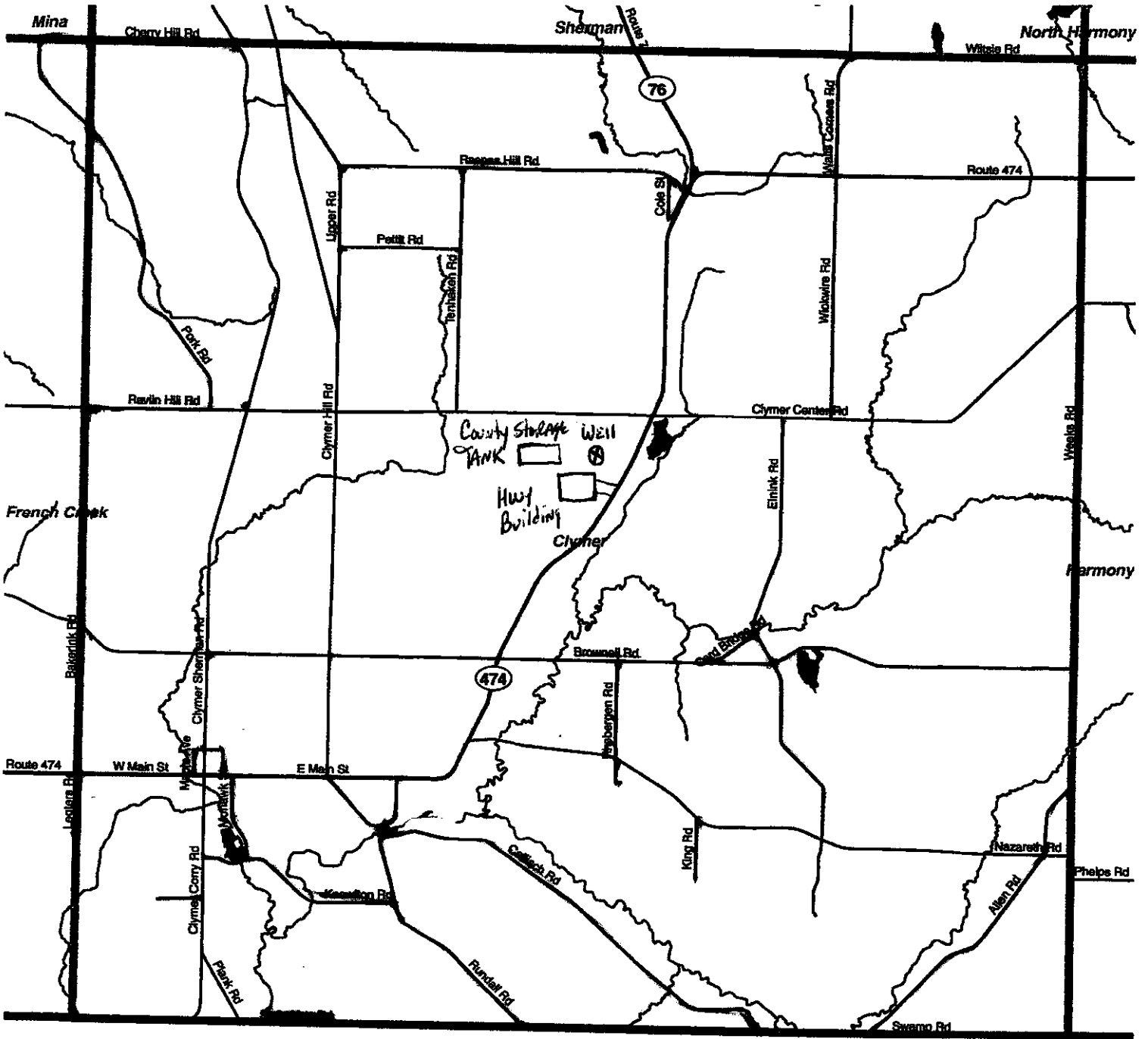
- Chautauqua County tank is 20,000 gallons



Scott Trisket - Hwy Supt.

3-28-2013
Date

Town of Clymer, NY



Map by:
Southern Tier West
Regional Planning and
Development Board



Major Highway

JURIS

- Interstate
- Federal
- State

Streets

- Area Hydrography
- Linear Hydrography
- City and Town Boundaries

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

MAY 13 2013

Mr. Curtis Rung, Highway Superintendent
Town of Wirt
210 Main Street
P.O. Box 243
Richburg, New York 14724

Dear Mr. Rung:

Re: Brine BUD # **B062-13** - Dust Control/Road Stabilization

We have reviewed the information submitted in your October 10, 2012 request for the proposed beneficial use of brine from the National Fuel Gas – Beech Hill Station in Wellsville, New York as part of your dust control and road stabilization systems. This use is approved pursuant to 6 NYCRR 360-1.15(d) and in accordance with the following:

- Fracture fluids obtained during well flowback operations may not be spread on roads. Brine from Marcellus formation wells may not be used without additional analysis.
- Dust control activities must be conducted in accordance with procedures described in your BUD petition. No brine can be applied after daylight hours or used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine may not be applied on wet roads, during rain, or when rain is imminent.

The additional source of brine from Terry Collins or Collins oil is not approved at this time.

Brine is approved for road spreading use on all non-paved roads in the Town of Wirt. Brine may be applied a maximum of ten times on any section of roadway during a season. Please contact this Office should the need arise to increase the application frequency or add additional roads. In addition, a brine sample may be required in order to update the chemical analysis on file. Staff will be in contact for a convenient date and time.

You must keep a copy of this letter and the Part 364 permit (if required) in all vehicles transporting or spreading brine. The New York State Department of Environmental Conservation reserves the right to rescind or modify this determination at any time, should conditions warrant. This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.

Organic Recycling & Beneficial Use Section
Bureau of Waste Reduction & Recycling

bcc: P. Pettit/S. Rowland/S. Condon/P. Leonardo
SC:ks
C:\WPDOCS\Condon\Brine_Letter_wirt.docx

TOWN OF WIRT
210 Main st.
P.O. Box 243
Richburg N.Y. 14774

The town of Wirt with offices located at 210 Main St. Richburg, N.Y. is seeking approval for the Wirt highway department located at 125 Mill St. Richburg N.Y. to spread production brine on town of Wirt dirt roads, for the control of dust and road stabilization. Highway Superintendent Curtis Rung has approved the use of production brine for these purposes. The brine to be used for these purposes will come from National Fuel Beech Hill Station 1161 , Peet Road Wellsville, N.Y. ;National Fuel 2210 Co .Rt . 22 Andover , N.Y. or Terry Collins of Richburg , N.Y.

The brine will be applied by use of a spreader bar with shut-off control in the cab of the truck. The truck to be used to spread brine will only be used to spread brine and haul water for dust control. Brine will be applied at a rate of 2000 gallons / mile, not more than 3 times a year to suppress dust, or to stabilize road surface. Brine will not be applied; after daylight hours, within 150 ft. of any stream , creek , or other body of water ; on sections of road with a grade of more than 10 percent ; on wet roads , during rain or when rain is imminent. The towns desire to use brine is to slow and diminish erosion of fine particles that are filling lakes, ponds and other water ways , as well as improving the quality of life for our residents.

RECEIVED

*Curtis Rung,
Highway Superintendent
Telephone no. 585-928-2026*

10/10/2012

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

DEC 10 2012

Mr. Stephen Pownall
Project Manager
Copper Ridge Oil, Inc.
PO Box 626
Olean, NY 14760

Dear Mr. Pownall:

Re: Brine BUD Request - Dust Suppression, Road Stabilization and Deicing Agent

We have reviewed the information submitted in your October 9, 2012 petition for the proposed beneficial use of brine produced from your onsite wells on contiguous properties to be spread on private roads on the properties as shown on submitted maps and diagrams.

This use is not approved due to the following:

- The chloride level of 17600 mg/L in the representative brine sample analysis is low and is unlikely to be effective for deicing purposes.
- The high level of BTEX contaminants make the material unsuitable for road spreading purposes.

An alternative source of brine may be acceptable and you may submit a revised request at any time. Please contact Stephen Condon at (518) 402-8706 or scondon@gw.dec.state.ny.us if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organic Recycling & Beneficial Use Section
Bureau of Waste Reduction & Recycling
Division of Materials Management

Copper Ridge Oil, Inc.

PO Box 626 Olean, NY 14760 716 372-4021

October 9, 2012

RECEIVED
NYSDEC

OCT 15 2012

New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials
Bureau of Solid Waste, Reduction and Recycling, 9th Floor
625 Broadway
Albany, NY 12233-7253

DIRECTOR'S OFFICE
DIV. OF MATERIALS MANAGEMENT

Attn: Steve Condon
518 402-8706

Please consider this document our petition for a beneficial use determination (BUD) for the use of production brine generated from oil and gas well operations for road spreading purposes. A Waste Transporter Part 364 Permit is currently not required due to an exemption granted under 6 NYCRR Part 364 section 364.1(e)(2)(xvii) "Waste collected, transported or transferred wholly on-site by the person responsible for the origination, generation, or occurrence of such waste,". We are currently planning for on-site use and if in the future we determine that we need to transport and/or spread over public roads we will apply for a Waste Transporter Part 364 Permit and add that information to our BUD permit.

This BUD approval is for Copper Ridge Oil, Inc. PO Box 626, Olean, NY, 14760 (716 372-4021).

The properties that we are planning to spread on are located in Cattaraugus County, NY being parcels 85.003-1-9.1, 85.003-1-9.4, 85.003-1-10, 85.003-2-14, 85.003-2-4, 85.003-2-15, 85.003-2-16, 85.003-2-17, 85.003-2-21, 85.003-2-22 owned by Gregory Thropp and parcel 85.003-2-20 owned by Copper Ridge. All of the acreage (approx 620 acres) is geographically contiguous and is on-site property (see attached map). We are planning to spread on the private lease roads and will only be crossing the public roads. Attached is the consent from Gregory Thropp for the use of his property.

The brine will be hauled from the existing production facilities on parcels 85.003-1-10, 85.003-2-17, and 85.003-2-20 which are located on site within the contiguous acreage.

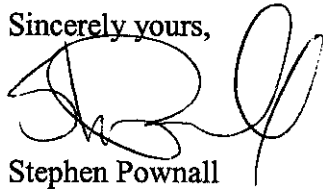
An analysis of the brine was performed by TestAmerica Laboratories, Inc. and their report is attached.

The brine will be applied using portable tanks that utilize a spreader bar that is remotely controlled. The tanks will primarily be used for spreading brine with the occasional use for well completion services. There are currently no plans to haul any other waste

products with these tanks and if we do we will clean the tanks of the other transported waste prior to the resumption of the road spreading operations. For dust and road stabilization purposes we propose to spread on an as needed basis and we will be restricting the application of the brine to daylight hours and will not spread within 50 feet of a stream, creek, or any other body of water, or on wet roads, during rain, or when rain is imminent. For ice control we will spread as needed and in the future if we determine that we will be spreading over public roads we will apply the brine in accordance with the NYSDOT guidelines for Anti-Icing with Liquids.

If you need any additional information please contact me at 716 484-3432. Thank you for your attention to this matter.

Sincerely yours,

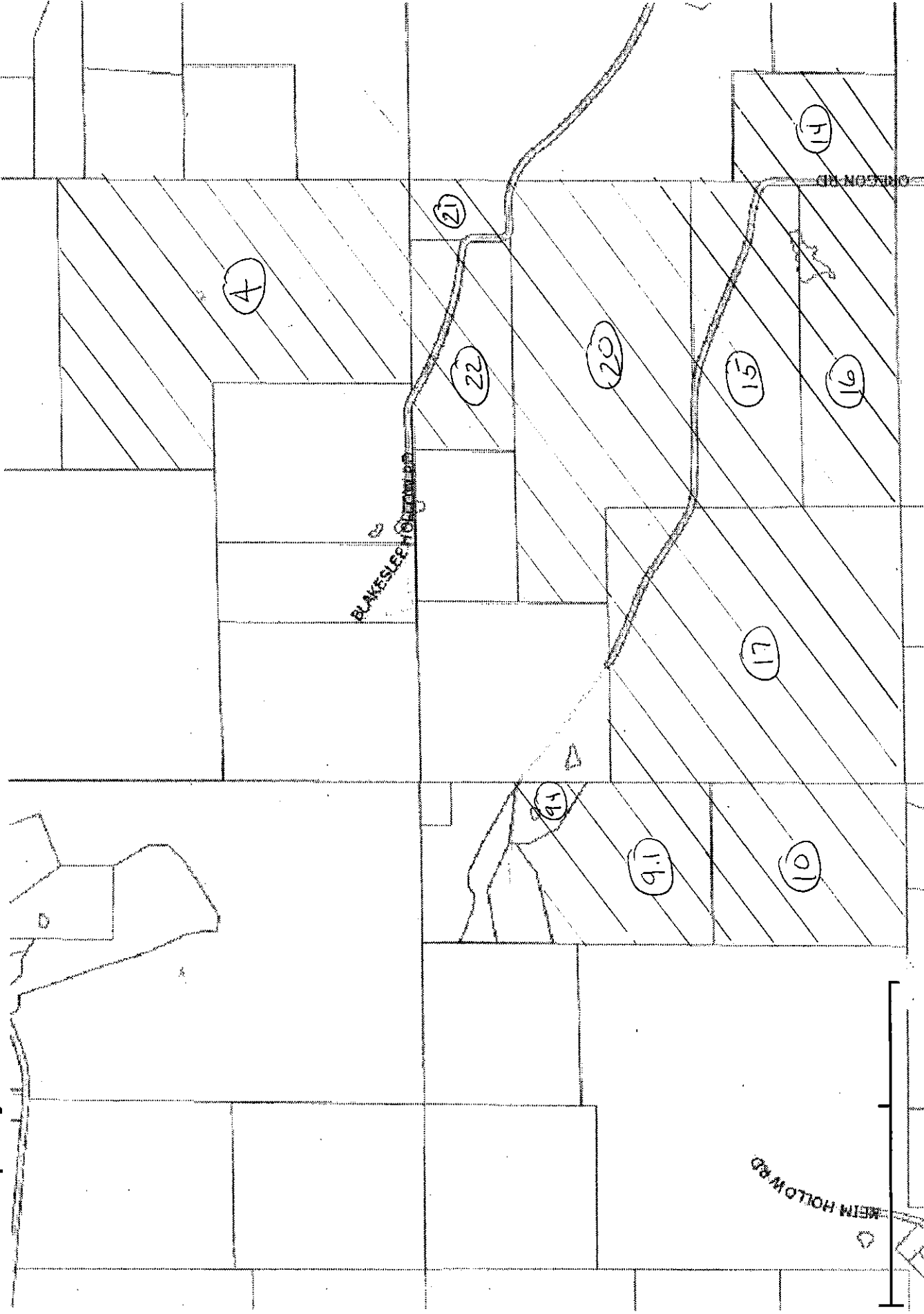
A handwritten signature in black ink, appearing to read 'Stephen Pownall', written over the typed name below.

Stephen Pownall
Project Manager

Cattaraugus County GIS


Copper Ridge Oil

Real Property and GIS Services



CONSENT TO USE PROPERTY

I, Gregory Thropp 3009 Oregon Rd, Olean, NY 14760, hereby authorize Copper Ridge Oil, Inc. PO Box 626, Olean, NY 14760 to use my property, parcels 85.003-1-9.1, 85.003-1-9.4, 85.003-1-10, 85.003-2-14, 85.003-2-4, 85.003-2-15, 85.003-2-16, 85.003-2-17, 85.003-2-21, 85.003-2-22 located in Cattaraugus County, New York, for any road spreading purposes using brine and any brine storage as needed.



Gregory Thropp

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

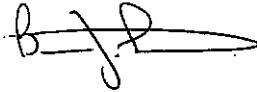
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-20217-1
Client Project/Site: Brine Water Testing

For:
Copper Ridge Oil Co.
PO BOX 626
Olean, New York 14760

Attn: Steve Pownall



Authorized for release by:
6/4/2012 2:17:23 PM

Brian Fischer
Project Manager II
brian.fischer@testamericainc.com

Review your project
results through

Total Access

Have a Question?

**ASK
The
Expert**

Visit us at:
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.



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19



Definitions/Glossary

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Job ID: 480-20217-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-20217-1

Receipt

The sample was received on 5/18/2012 9:00 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.1° C.

GC/MS VOA

Method 8260B: The following sample was diluted due to the abundance of target analytes: BRINE WATER TESTING (480-20217-1). Elevated reporting limits (RLs) are provided.

Method 8260B: The following sample was diluted due to the abundance of target analytes: BRINE WATER TESTING (480-20217-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals

Method 6010B: The following sample was diluted due to the abundance of target analyte total barium, magnesium, and sodium: BRINE WATER TESTING (480-20217-1). Elevated reporting limits (RLs) are provided.

Method 6010B: The Method Blank for batch 480-65100 contained total calcium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of sample BRINE WATER TESTING (480-20217-1) was not performed.

Method 6010B: The following sample was diluted due to the abundance of target analyte total calcium: BRINE WATER TESTING (480-20217-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

General Chemistry

Method SM 2540C: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: BRINE WATER TESTING (480-20217-1). The reporting limits (RLs) have been adjusted proportionately.

Method 9038, D516-90, 02: The method blank for batch 66319 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. BRINE WATER TESTING (480-20217-1)

Method 9040B: The following sample was received outside of holding time: BRINE WATER TESTING (480-20217-1).

No other analytical or quality issues were noted.

4

Detection Summary

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Client Sample ID: BRINE WATER TESTING

Lab Sample ID: 480-20217-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Ethylbenzene	74		20	15	ug/L	20			8260B	Total/NA
m-Xylene & p-Xylene	1300		40	13	ug/L	20			8260B	Total/NA
o-Xylene	490		20	15	ug/L	20			8260B	Total/NA
Xylenes, Total	1800		40	13	ug/L	20			8260B	Total/NA
Benzene - DL	2000		50	21	ug/L	50			8260B	Total/NA
Toluene - DL	2400		50	26	ug/L	50			8260B	Total/NA
Barium	12.2		0.010	0.0035	mg/L	5			6010B	Total/NA
Calcium	6970	B	5.0	1.0	mg/L	10			6010B	Total/NA
Iron	3.6		0.050	0.019	mg/L	1			6010B	Total/NA
Magnesium	1180		1.0	0.22	mg/L	5			6010B	Total/NA
Sodium	18500		5.0	1.6	mg/L	5			6010B	Total/NA
Sulfate	51.3	B	25.0	7.5	mg/L	5			9038	Total/NA
Chloride	17600		400	136	mg/L	400			9251	Total/NA
Total Dissolved Solids	35400		1000	400	mg/L	1			SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
pH	6.98	H	0.100	0.100	SU	1			9040B	Total/NA

5

Client Sample Results

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Client Sample ID: BRINE WATER TESTING

Lab Sample ID: 480-20217-1

Date Collected: 05/17/12 00:00

Matrix: Water

Date Received: 05/18/12 09:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	74		20	15	ug/L			05/19/12 19:48	20
m-Xylene & p-Xylene	1300		40	13	ug/L			05/19/12 19:48	20
o-Xylene	490		20	15	ug/L			05/19/12 19:48	20
Xylenes, Total	1800		40	13	ug/L			05/19/12 19:48	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		66 - 137					05/19/12 19:48	20
Toluene-d8 (Surr)	111		71 - 126					05/19/12 19:48	20
4-Bromofluorobenzene (Surr)	113		73 - 120					05/19/12 19:48	20

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2000		50	21	ug/L			05/21/12 14:31	50
Toluene	2400		50	26	ug/L			05/21/12 14:31	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		66 - 137					05/21/12 14:31	50
Toluene-d8 (Surr)	106		71 - 126					05/21/12 14:31	50
4-Bromofluorobenzene (Surr)	110		73 - 120					05/21/12 14:31	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	12.2		0.010	0.0035	mg/L		05/18/12 16:15	05/21/12 11:24	5
Calcium	6970	B	5.0	1.0	mg/L		05/18/12 16:15	05/21/12 11:27	10
Iron	3.6		0.050	0.019	mg/L		05/18/12 16:15	05/21/12 10:34	1
Lead	ND		0.0050	0.0030	mg/L		05/18/12 16:15	05/21/12 10:34	1
Magnesium	1180		1.0	0.22	mg/L		05/18/12 16:15	05/21/12 11:24	5
Sodium	18500		5.0	1.6	mg/L		05/18/12 16:15	05/21/12 11:24	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		05/21/12 09:55	05/21/12 10:00	1
Sulfate	51.3	B	25.0	7.5	mg/L			05/29/12 17:12	5
Chloride	17600		400	136	mg/L			05/21/12 16:10	400
Total Dissolved Solids	35400		1000	400	mg/L			05/23/12 14:35	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.98	H	0.100	0.100	SU			05/21/12 17:55	1

Surrogate Summary

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		12DCE (86-137)	TOL (71-126)	BFB (73-120)
480-20217-1	BRINE WATER TESTING	122	111	113
480-20217-1 - DL	BRINE WATER TESTING	90	106	110
LCS 480-65164/4	Lab Control Sample	122	114	116
LCS 480-65291/4	Lab Control Sample	92	111	112
MB 480-65164/5	Method Blank	122	113	111
MB 480-65291/5	Method Blank	88	102	106

Surrogate Legend
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

7

QC Sample Results

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-65164/5
Matrix: Water
Analysis Batch: 65164

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		1.0	0.41	ug/L			05/19/12 11:18	1
Toluene	ND		1.0	0.51	ug/L			05/19/12 11:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/19/12 11:18	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/19/12 11:18	1
o-Xylene	ND		1.0	0.76	ug/L			05/19/12 11:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/19/12 11:18	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	122		66 - 137		05/19/12 11:18	1
Toluene-d8 (Surr)	113		71 - 126		05/19/12 11:18	1
4-Bromofluorobenzene (Surr)	111		73 - 120		05/19/12 11:18	1

Lab Sample ID: LCS 480-65164/4
Matrix: Water
Analysis Batch: 65164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	25.0	28.6		ug/L	114	70 - 122	
Ethylbenzene	25.0	29.7		ug/L	119	77 - 123	
m-Xylene & p-Xylene	50.0	58.3		ug/L	117	76 - 122	
o-Xylene	25.0	28.4		ug/L	114	76 - 122	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	122		66 - 137
Toluene-d8 (Surr)	114		71 - 126
4-Bromofluorobenzene (Surr)	116		73 - 120

Lab Sample ID: MB 480-65291/5
Matrix: Water
Analysis Batch: 65291

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		1.0	0.41	ug/L			05/21/12 12:02	1
Toluene	ND		1.0	0.51	ug/L			05/21/12 12:02	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/21/12 12:02	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/21/12 12:02	1
o-Xylene	ND		1.0	0.76	ug/L			05/21/12 12:02	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/21/12 12:02	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	88		66 - 137		05/21/12 12:02	1
Toluene-d8 (Surr)	102		71 - 126		05/21/12 12:02	1
4-Bromofluorobenzene (Surr)	106		73 - 120		05/21/12 12:02	1

QC Sample Results

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-65291/4
Matrix: Water
Analysis Batch: 65291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	23.7		ug/L		95	71 - 124
Toluene	25.0	23.9		ug/L		96	70 - 122
Ethylbenzene	25.0	23.5		ug/L		94	77 - 123
m-Xylene & p-Xylene	50.0	50.2		ug/L		100	76 - 122
o-Xylene	25.0	25.0		ug/L		100	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		66 - 137
Toluene-d8 (Surr)	111		71 - 126
4-Bromofluorobenzene (Surr)	112		73 - 120

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-65100/1-A
Matrix: Water
Analysis Batch: 65335

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 65100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.0020	0.00070	mg/L		05/18/12 16:15	05/21/12 10:30	1
Calcium	0.102	J	0.50	0.10	mg/L		05/18/12 16:15	05/21/12 10:30	1
Iron	ND		0.050	0.019	mg/L		05/18/12 16:15	05/21/12 10:30	1
Lead	ND		0.0050	0.0030	mg/L		05/18/12 16:15	05/21/12 10:30	1
Magnesium	ND		0.20	0.043	mg/L		05/18/12 16:15	05/21/12 10:30	1
Sodium	ND		1.0	0.32	mg/L		05/18/12 16:15	05/21/12 10:30	1

Lab Sample ID: LCS 480-65100/2-A
Matrix: Water
Analysis Batch: 65335

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 65100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.200	0.211		mg/L		105	80 - 120
Calcium	10.0	10.68		mg/L		107	80 - 120
Iron	10.0	10.71		mg/L		107	80 - 120
Lead	0.200	0.214		mg/L		107	80 - 120
Magnesium	10.0	10.51		mg/L		105	80 - 120
Sodium	10.0	10.66		mg/L		106	80 - 120

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-65300/1-A
Matrix: Water
Analysis Batch: 65302

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 65300

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		05/21/12 09:55	05/21/12 10:00	1

QC Sample Results

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCS 480-65300/2-A		Client Sample ID: Lab Control Sample					
Matrix: Water		Prep Type: Total/NA					
Analysis Batch: 65302		Prep Batch: 65300					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil & Grease	40.0	35.20		mg/L		88	78 - 114

Method: 9038 - Sulfate, Turbidimetric

Lab Sample ID: MB 480-66319/51		Client Sample ID: Method Blank							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 66319									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.87	J	5.0	1.5	mg/L			05/29/12 17:04	1

Lab Sample ID: LCS 480-66319/50		Client Sample ID: Lab Control Sample					
Matrix: Water		Prep Type: Total/NA					
Analysis Batch: 66319							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	30.62		mg/L		102	90 - 110

Method: 9040B - pH

Lab Sample ID: LCS 480-65597/1		Client Sample ID: Lab Control Sample					
Matrix: Water		Prep Type: Total/NA					
Analysis Batch: 65597							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	6.975		SU		100	99 - 101

Lab Sample ID: 480-20217-1 DU		Client Sample ID: BRINE WATER TESTING						
Matrix: Water		Prep Type: Total/NA						
Analysis Batch: 65597								
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.98	H	6.973		SU		0.09	5

Method: 9251 - Chloride

Lab Sample ID: MB 480-65391/43		Client Sample ID: Method Blank							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 65391									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.34	mg/L			05/21/12 15:38	1

Lab Sample ID: LCS 480-65391/42		Client Sample ID: Lab Control Sample					
Matrix: Water		Prep Type: Total/NA					
Analysis Batch: 65391							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	24.73		mg/L		99	90 - 110

QC Sample Results

Client: Copper Ridge Oil Co.
 Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 480-65742/1
 Matrix: Water
 Analysis Batch: 65742

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0	4.0	mg/L			05/23/12 14:35	1

Lab Sample ID: LCS 480-65742/2
 Matrix: Water
 Analysis Batch: 65742

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	557	537.0		mg/L		96	85 - 115



QC Association Summary

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

GC/MS VOA

Analysis Batch: 65164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-20217-1	BRINE WATER TESTING	Total/NA	Water	8260B	
LCS 480-65164/4	Lab Control Sample	Total/NA	Water	8260B	
MB 480-65164/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 65291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-20217-1 - DL	BRINE WATER TESTING	Total/NA	Water	8260B	
LCS 480-65291/4	Lab Control Sample	Total/NA	Water	8260B	
MB 480-65291/5	Method Blank	Total/NA	Water	8260B	

Metals

Prep Batch: 65100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-20217-1	BRINE WATER TESTING	Total/NA	Water	3005A	
LCS 480-65100/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-65100/1-A	Method Blank	Total/NA	Water	3005A	

Analysis Batch: 65335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-20217-1	BRINE WATER TESTING	Total/NA	Water	6010B	65100
480-20217-1	BRINE WATER TESTING	Total/NA	Water	6010B	65100
480-20217-1	BRINE WATER TESTING	Total/NA	Water	6010B	65100
LCS 480-65100/2-A	Lab Control Sample	Total/NA	Water	6010B	65100
MB 480-65100/1-A	Method Blank	Total/NA	Water	6010B	65100

General Chemistry

Prep Batch: 65300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-20217-1	BRINE WATER TESTING	Total/NA	Water	1664A	
LCS 480-65300/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 480-65300/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 65302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-20217-1	BRINE WATER TESTING	Total/NA	Water	1664A	65300
LCS 480-65300/2-A	Lab Control Sample	Total/NA	Water	1664A	65300
MB 480-65300/1-A	Method Blank	Total/NA	Water	1664A	65300

Analysis Batch: 65391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-20217-1	BRINE WATER TESTING	Total/NA	Water	9251	
LCS 480-65391/42	Lab Control Sample	Total/NA	Water	9251	
MB 480-65391/43	Method Blank	Total/NA	Water	9251	

Analysis Batch: 65597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-20217-1	BRINE WATER TESTING	Total/NA	Water	9040B	
480-20217-1 DU	BRINE WATER TESTING	Total/NA	Water	9040B	
LCS 480-65597/1	Lab Control Sample	Total/NA	Water	9040B	

QC Association Summary

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

General Chemistry (Continued)

Analysis Batch: 65742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-20217-1	BRINE WATER TESTING	Total/NA	Water	SM 2540C	
LCS 480-65742/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 480-65742/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 66319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-20217-1	BRINE WATER TESTING	Total/NA	Water	9038	
LCS 480-66319/50	Lab Control Sample	Total/NA	Water	9038	
MB 480-66319/51	Method Blank	Total/NA	Water	9038	

Lab Chronicle

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Client Sample ID: BRINE WATER TESTING

Lab Sample ID: 480-20217-1

Date Collected: 05/17/12 00:00

Matrix: Water

Date Received: 05/18/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	65164	05/19/12 19:48	LH	TAL BUF
Total/NA	Analysis	8260B	DL	50	65291	05/21/12 14:31	RL	TAL BUF
Total/NA	Prep	3005A			65100	05/18/12 16:15	SS	TAL BUF
Total/NA	Analysis	6010B		1	65335	05/21/12 10:34	LH	TAL BUF
Total/NA	Analysis	6010B		5	65335	05/21/12 11:24	LH	TAL BUF
Total/NA	Analysis	6010B		10	65335	05/21/12 11:27	LH	TAL BUF
Total/NA	Prep	1664A			65300	05/21/12 09:55	LYW	TAL BUF
Total/NA	Analysis	1664A		1	65302	05/21/12 10:00	LYW	TAL BUF
Total/NA	Analysis	9251		400	65391	05/21/12 16:10	PJQ	TAL BUF
Total/NA	Analysis	9040B		1	65597	05/21/12 17:55	KS	TAL BUF
Total/NA	Analysis	SM 2540C		1	65742	05/23/12 14:35	KJ	TAL BUF
Total/NA	Analysis	9038		5	66319	05/29/12 17:12	JR	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



Certification Summary

Client: Copper Ridge Oil Co.
 Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas DEQ	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Georgia	State Program	4	N/A
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Kentucky (UST)	State Program	4	30
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	USDA	Federal		P330-08-00242
TestAmerica Buffalo	Virginia	NELAC	3	460185
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	West Virginia DEP	State Program	3	252
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010B	Metals (ICP)	SW846	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
9038	Sulfate, Turbidimetric	SW846	TAL BUF
9040B	pH	SW846	TAL BUF
9251	Chloride	SW846	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14226-2298, TEL (716)691-2600

Sample Summary

Client: Copper Ridge Oil Co.
Project/Site: Brine Water Testing

TestAmerica Job ID: 480-20217-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-20217-1	BRINE WATER TESTING	Water	05/17/12 00:00	05/18/12 09:00



Login Sample Receipt Checklist

Client: Copper Ridge Oil Co.

Job Number: 480-20217-1

Login Number: 20217

List Source: TestAmerica Buffalo

List Number: 1

Creator: May, Joel M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	COPPER RIDGE OIL
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

New York State Department of Environmental Conservation

Division of Materials Management

Bureau of Waste Reduction & Recycling, 9th Floor

625 Broadway, Albany, New York 12233-7253

Phone: (518) 402-8706 • Fax: (518) 402-9024

Website: www.dec.ny.gov



Joe Martens
Commissioner

APR 18 2013

Ms. Terry Zittel
Amos Zittel & Sons, Inc.
3275 Webster Road
Eden, NY 14057

Dear Ms. Zittel:

Re: Brine Use; Deicing Agent, Dust Control/Road Stabilization

We have reviewed the information submitted in your March 29, 2013 request for an exemption from 6 NYCRR Part 360 waste management requirements for the beneficial use of brine produced from gas wells located on your farm property in Eden, New York. As the brine is a waste generated essentially from heating your greenhouses and natural gas production is integral to your farming practices, the brine produced from this practice is exempt from 6 NYCRR Part 360 waste management requirements. The exemption is described in subdivision 360-1.7(b) and paragraph 360-1.7(b)(1) and applies only to waste brine that remains on the farm property. We do recommend the following steps consistent with the beneficial use of waste brine.

- Brine should be applied to roads by use of a spreader bar or similar spray device with shut off controls in the cab of the truck and with vehicular equipment that is dedicated to this use or cleaned of previously transported materials.
- Brine applied for dust control and road stabilization purposes should not be applied after daylight hours or used within 50 feet of any stream, creek, lake or other body of water or in a manner that cause brine to flow or run off into streams, creeks, lakes and other bodies of water. Brine should not be applied on wet roads, during rain, or when rain is imminent.
- For deicing purposes, the document, "NYSDOT Office of Operations Management Highway Maintenance Guidelines for Snow and Ice Control" may be helpful and can be found on the internet.

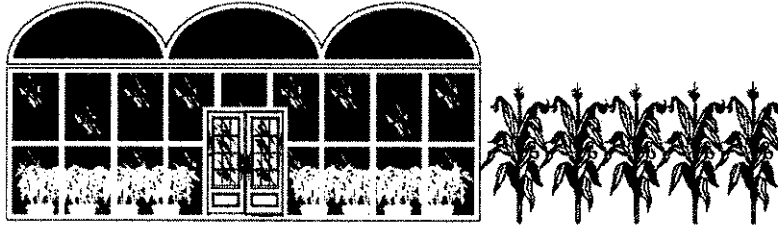
This determination does not exempt this activity from any other local, state, or federal requirements.

Please contact Stephen Condon at (518) 402-8706 if you have any questions or need any additional information.

Sincerely,

Sally Rowland, Ph.D., P.E.
Organic Recycling & Beneficial Use Section
Bureau of Waste Reduction & Recycling
Division of Materials Management

bcc: P. Pettit/S. Rowland/S. Condon/P. Leonardo
SC:ks
C:\WPDOCS\Condon\Brine_Letter_zittels.docx



AMOS ZITTEL & SONS, INC.

3275 Webster Road, Eden, NY 14057 716-649-6340 Fax: 716-649-6347
office@zittels.com www.zittels.com

March 29, 2013

Stephen Condon
Bureau of Waste Reduction & Recycling
NYS Dept of Environmental Conservation
625 Broadway, 9th Floor
Albany, NY 12233-7253

Dear Stephen,

Amos Zittel & Sons, Inc. would like to request exemption for the BUD permit (Brine removal from gas wells) under the Solid Waste Exemption for single family homes and farms law. We are a family farm growing 250 acres of vegetables.

Thank you for your consideration in this matter. If you have any questions, please call 716-649-6340 or email terry@zittels.com.

Sincerely,

Terry Zittel

Terry Zittel
Amos Zittel & Sons, Inc.
3275 Webster Road,
Eden, NY 14057