AMRO Environmental Laboratories Corporation

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December 16, 2009

ANALYTICAL TEST RESULTS

Lou Niles
Moleculoc
248 State Street
P.O. Box 163
Groveton, NH 03582
TEL: (603) 636-1411
FAX:

Subject: Moleculoc Testing

Workorder No.: 0911032

Dear Lou Niles:

AMRO Environmental Laboratories Corp. analyzed 2 samples for the analyses presented in the following report.

AMRO is accredited in accordance with NELAC and certifies that these test results meet all the requirements of NELAC, where applicable, unless otherwise noted in the Project Narrative.

This report consists of a total of 12 pages. This letter is an integral part of your data report. All results in this project relate only to the sample(s) described in the Project Narrative section of the report. This report shall not be reproduced except in full, without the written approval of the laboratory. If you have any questions regarding this project in the future, please refer to the Workorder Number above.

Sincerely,

Nancy Stewart
Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and 1001, Naval Facilities Engineering Service Center (NFESC).

Hard copy of the State Certification is available upon request.

AMRO Environmental Laboratories Corp.

Date: *16-Dec-09*

CLIENT: Moleculoc
Project: Moleculoc Testing
Lab Order: 0911032
Date Received: 11/16/2009

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
0911032-01A	Moleculoc "A"	11/23/2009	12:00 AM
0911032-01B	Moleculoc "A"	11/23/2009	12:00 AM
0911032-02A	Moleculoc "C"	11/23/2009	12:00 AM
0911032-02B	Moleculoc "C"	11/23/2009	12:00 AM

PROJECT NARRATIVE for AMRO Workorder 0911032

These 2 samples were generated at AMRO under the supervision of Mr. John Hinds of Moleculoc.

John supplied AMRO with Gasoline, Diesel Fuel , Shell SAE 40 Motor Oil and 2 bags of Moleculoc.

Experimental Procedure

1. Sample 0911032-01A (Moleculoc "A")

11/16/09

12:30 PM: A 30ml (~1 ounce) mixture of the above 3 fuels (10ml each) was added to a foil lined sheet pan. 227 grams (0.5lb) of Moleculoc was added to the fuel and mixed well. Sample had consistency of wet sand, but no free liquid apparent.

1:00 PM: Another 30ml of the mixture was added to the sheet pan and mixed well. Sample had consistency of wet sand, but no free liquid apparent.

3:30 PM: Another 113.5 grams (0.25lb) of Moleculoc was added to the sheet pan and mixed well.

11/17/09

10:00 AM: Another 30ml of the mixture was added to the sheet pan and mixed well. Sample had consistency of wet sand, but no free liquid apparent.

3:45 PM: Another 113.5 grams (0.25lb) of Moleculoc was added to the sheet pan and mixed well.

8:00 PM: Another 30ml of the mixture was added to the sheet pan and mixed well. Sample had consistency of wet sand, but no free liquid apparent.

11/18/09

2:30 PM: Another 30ml of the mixture was added to the sheet pan and mixed well. Sample had consistency of wet sand, but no free liquid apparent.

11/20/09

11:20 AM: Another 90ml of the mixture was added to the sheet pan and mixed well. Sample had consistency of wet sand, but no free liquid apparent.

At this point the total fuel mixture was 240ml (~8 ounces) and there was 454 grams (1 lb) of Moleculoc. The sample was transferred to a 16-ounce glass jar and labeled for testing.

2. Sample 0911032-02A (Moleculoc "C")

11/18/09

6:00 PM: A 60ml (~2ounce) mixture of the above 3 fuels (20ml each) was added to a foil lined sheet pan. 227 grams (0.5lb) of Moleculoc was added to the fuel and mixed well. Sample had consistency of wet sand, but no free liquid apparent.

11/19/09

10:10 AM: 30ml of the mixture was added to the sheet pan and mixed well. Sample had consistency of wet sand, but no free liquid apparent.

5:00 PM: Another 30ml of the mixture was added to the sheet pan and mixed well. Sample had consistency of wet sand, but no free liquid apparent.

11/20/09

11:15 AM: Another 30ml of the mixture was added to the sheet pan and mixed well. Sample had consistency of very wet sand and free product would pool on top after it sat for awhile.

At this point the total fuel mixture was 120ml (~5 ounces) and there was 227 grams (0.5 lb) of Moleculoc. The sample was transferred to a 16-ounce glass jar and labeled for testing.

Testing

The 2 samples were tested for:

a. Ignitablitiy
b. pH
c. Reactivity (sulfide and cyanide)
d. TCLP Metals and Volatiles
e. Total BTEX

The enclosed report is the results of that testing.

AMRO Environmental Laboratories Corp.

Date: *16-Dec-09*

CLIENT:	Moleculoc	**Client Sample ID:**	Moleculoc "A"
Lab Order:	0911032	**Collection Date:**	11/23/2009
Project:	Moleculoc Testing	**Matrix:**	SOLID
Lab ID:	0911032-01B		

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP LEACHED		**SW1311/8260B**				Analyst: **SK**
1,1-Dichloroethene	ND	0.020		mg/L	10	12/1/2009 2:16:00 PM
1,2-Dichloroethane	ND	0.020		mg/L	10	12/1/2009 2:16:00 PM
1,4-Dichlorobenzene	ND	0.020		mg/L	10	12/1/2009 2:16:00 PM
2-Butanone	ND	0.10		mg/L	10	12/1/2009 2:16:00 PM
Benzene	ND	0.020		mg/L	10	12/1/2009 2:16:00 PM
Carbon tetrachloride	ND	0.020		mg/L	10	12/1/2009 2:16:00 PM
Chlorobenzene	ND	0.020		mg/L	10	12/1/2009 2:16:00 PM
Chloroform	ND	0.020		mg/L	10	12/1/2009 2:16:00 PM
Tetrachloroethene	ND	0.020		mg/L	10	12/1/2009 2:16:00 PM
Trichloroethene	ND	0.020		mg/L	10	12/1/2009 2:16:00 PM
Vinyl chloride	ND	0.020		mg/L	10	12/1/2009 2:16:00 PM
Surr: 1,2-Dichloroethane-d4	98.0	77-127		%REC	10	12/1/2009 2:16:00 PM
Surr: 4-Bromofluorobenzene	102	79-117		%REC	10	12/1/2009 2:16:00 PM
Surr: Dibromofluoromethane	96.4	85-116		%REC	10	12/1/2009 2:16:00 PM
Surr: Toluene-d8	100	86-114		%REC	10	12/1/2009 2:16:00 PM

AMRO Environmental Laboratories Corp.

Date: *16-Dec-09*

CLIENT:	Moleculoc	**Client Sample ID:**	Moleculoc "C"
Lab Order:	0911032	**Collection Date:**	11/23/2009
Project:	Moleculoc Testing	**Matrix:**	SOLID
Lab ID:	0911032-02B		

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP LEACHED		**SW1311/8260B**				Analyst: **SK**
1,1-Dichloroethene	ND	0.020		mg/L	10	12/1/2009 2:50:00 PM
1,2-Dichloroethane	ND	0.020		mg/L	10	12/1/2009 2:50:00 PM
1,4-Dichlorobenzene	ND	0.020		mg/L	10	12/1/2009 2:50:00 PM
2-Butanone	ND	0.10		mg/L	10	12/1/2009 2:50:00 PM
Benzene	ND	0.020		mg/L	10	12/1/2009 2:50:00 PM
Carbon tetrachloride	ND	0.020		mg/L	10	12/1/2009 2:50:00 PM
Chlorobenzene	ND	0.020		mg/L	10	12/1/2009 2:50:00 PM
Chloroform	ND	0.020		mg/L	10	12/1/2009 2:50:00 PM
Tetrachloroethene	ND	0.020		mg/L	10	12/1/2009 2:50:00 PM
Trichloroethene	ND	0.020		mg/L	10	12/1/2009 2:50:00 PM
Vinyl chloride	ND	0.020		mg/L	10	12/1/2009 2:50:00 PM
Surr: 1,2-Dichloroethane-d4	97.7	77-127		%REC	10	12/1/2009 2:50:00 PM
Surr: 4-Bromofluorobenzene	102	79-117		%REC	10	12/1/2009 2:50:00 PM
Surr: Dibromofluoromethane	102	85-116		%REC	10	12/1/2009 2:50:00 PM
Surr: Toluene-d8	97.1	86-114		%REC	10	12/1/2009 2:50:00 PM

AMRO Environmental Laboratories Corp.

Date: *16-Dec-09*

CLIENT: Moleculoc
Project: Moleculoc Testing
Lab Order: 0911032

Lab ID: 0911032-01
Collection Date: 11/23/2009
Collection Time:
Client Sample ID: Moleculoc "A"
Matrix: SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8260B AROMATIC VOLATILES BY GC/MS, M SW8260B						Analyst: SK
Methyl tert-butyl ether	ND	410		µg/Kg-dry	10	11/30/2009 4:30:00 PM
Benzene	ND	410		µg/Kg-dry	10	11/30/2009 4:30:00 PM
Toluene	3,100	410		µg/Kg-dry	10	11/30/2009 4:30:00 PM
Ethylbenzene	29,000	410		µg/Kg-dry	10	11/30/2009 4:30:00 PM
m,p-Xylene	120,000	410		µg/Kg-dry	10	11/30/2009 4:30:00 PM
o-Xylene	71,000	410		µg/Kg-dry	10	11/30/2009 4:30:00 PM
Surr: Dibromofluoromethane	104	66-126		%REC	10	11/30/2009 4:30:00 PM
Surr: 1,2-Dichloroethane-d4	114	66-125		%REC	10	11/30/2009 4:30:00 PM
Surr: Toluene-d8	93.3	70-134		%REC	10	11/30/2009 4:30:00 PM
Surr: 4-Bromofluorobenzene	82.6	62-125		%REC	10	11/30/2009 4:30:00 PM

Lab ID: 0911032-02
Collection Date: 11/23/2009
Collection Time:
Client Sample ID: Moleculoc "C"
Matrix: SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8260B AROMATIC VOLATILES BY GC/MS, M SW8260B						Analyst: SK
Methyl tert-butyl ether	ND	400		µg/Kg-dry	10	11/30/2009 5:04:00 PM
Benzene	ND	400		µg/Kg-dry	10	11/30/2009 5:04:00 PM
Toluene	13,000	400		µg/Kg-dry	10	11/30/2009 5:04:00 PM
Ethylbenzene	15,000	400		µg/Kg-dry	10	11/30/2009 5:04:00 PM
m,p-Xylene	58,000	400		µg/Kg-dry	10	11/30/2009 5:04:00 PM
o-Xylene	34,000	400		µg/Kg-dry	10	11/30/2009 5:04:00 PM
Surr: Dibromofluoromethane	105	66-126		%REC	10	11/30/2009 5:04:00 PM
Surr: 1,2-Dichloroethane-d4	110	66-125		%REC	10	11/30/2009 5:04:00 PM
Surr: Toluene-d8	89.7	70-134		%REC	10	11/30/2009 5:04:00 PM
Surr: 4-Bromofluorobenzene	76.2	62-125		%REC	10	11/30/2009 5:04:00 PM

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Date: *16-Dec-09*

CLIENT: Moleculoc
Project: Moleculoc Testing
Lab Order: 0911032

Lab ID: 0911032-01
Collection Date: 11/23/2009
Collection Time:
Client Sample ID: Moleculoc "A"
Matrix: SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ICP METALS, TCLP		**SW1311/6010B**				Analyst: **AL**
Arsenic	ND	0.25		mg/L	1	12/1/2009 12:02:50 AM
Barium	ND	4.0		mg/L	1	12/1/2009 12:02:50 AM
Cadmium	ND	0.050		mg/L	1	12/1/2009 12:02:50 AM
Chromium	ND	0.10		mg/L	1	12/1/2009 12:02:50 AM
Lead	ND	0.25		mg/L	1	12/1/2009 12:02:50 AM
Selenium	ND	0.85		mg/L	1	12/1/2009 12:02:50 AM
Silver	ND	0.070		mg/L	1	12/1/2009 12:02:50 AM
MERCURY, TCLP		**SW7470**				Analyst: **AL**
Mercury	ND	0.00100		mg/L	1	12/2/2009 12:02:13 PM
FLASH POINT / IGNITABILITY		**SW1010**				Analyst: **AL**
Ignitability	>200	0		°F	1	11/25/2009
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	6.5	0		wt%	1	11/24/2009
CYANIDE, REACTIVE		**SW7.3.3.2**				Analyst: **AL**
Reactive Cyanide	ND	21		mg/Kg-dry	1	11/23/2009
SULFIDE, REACTIVE		**SW7.3.4.2**				Analyst: **AL**
Reactive Sulfide	ND	100		mg/Kg-dry	1	11/23/2009
PH/CORROSIVITY		**SW9045C**				Analyst: **REB**
pH	7.1	0		pH Units	1	11/27/2009

AMRO Environmental Laboratories Corp.

Date: *16-Dec-09*

CLIENT: Moleculoc
Project: Moleculoc Testing
Lab Order: 0911032

Lab ID: 0911032-02
Collection Date: 11/23/2009
Collection Time:
Client Sample ID: Moleculoc "C"
Matrix: SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ICP METALS, TCLP		**SW1311/6010B**				Analyst: **AL**
Arsenic	ND	0.25		mg/L	1	12/1/2009 12:08:24 AM
Barium	ND	4.0		mg/L	1	12/1/2009 12:08:24 AM
Cadmium	ND	0.050		mg/L	1	12/1/2009 12:08:24 AM
Chromium	ND	0.10		mg/L	1	12/1/2009 12:08:24 AM
Lead	ND	0.25		mg/L	1	12/1/2009 12:08:24 AM
Selenium	ND	0.85		mg/L	1	12/1/2009 12:08:24 AM
Silver	ND	0.070		mg/L	1	12/1/2009 12:08:24 AM
MERCURY, TCLP		**SW7470**				Analyst: **AL**
Mercury	ND	0.00100		mg/L	1	12/2/2009 12:26:36 PM
FLASH POINT / IGNITABILITY		**SW1010**				Analyst: **AL**
Ignitability	>200	0		°F	1	11/25/2009
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	6.8	0		wt%	1	11/24/2009
CYANIDE, REACTIVE		**SW7.3.3.2**				Analyst: **AL**
Reactive Cyanide	ND	20		mg/Kg-dry	1	11/23/2009
SULFIDE, REACTIVE		**SW7.3.4.2**				Analyst: **AL**
Reactive Sulfide	ND	100		mg/Kg-dry	1	11/23/2009
PH/CORROSIVITY		**SW9045C**				Analyst: **REB**
pH	7.7	0		pH Units	1	11/27/2009

AMRO Environmental Laboratories Corp.

16-Dec-09

Lab Order: 0911032
Client: Moleculoc
Project: Moleculoc Testing

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
0911032-01A	Moleculoc "A"	11/23/2009	Solid	EPA 8260B AROMATIC VOCs by GC/MS, Medium-Level		11/30/2009	
				EPA 5035,methanol preserved	11/19/2009	R43738	
0911032-01B				EPA 1010 Ignitability		11/25/2009	
						R43712	
				EPA 6010B ICP METALS, TCLP		12/1/2009	
				EPA 3010 TCLP PREP FOR ICP	11/30/2009	19825	11/29/2009
				EPA 7.3.3.2 Cyanide, Reactive		11/23/2009	
						R43719	
				EPA 7.3.4.2 Sulfide, Reactive (Soils/Solids/Waste)		11/23/2009	
						R43709	
				EPA 7470 MERCURY, TCLP		12/2/2009	
				MERCURY PREP: EPA 7040	12/1/2009	19827	11/29/2009
				EPA 8260B VOLATILES, TCLP Leached		12/1/2009	
				EPA 1311/5030	11/30/2009	R43749	11/30/2009
				EPA 9045C pH/Corrosivity in Soil		11/27/2009	
						R43727	
				Percent Moisture		11/24/2009	
						R43717	
0911032-02A	Moleculoc "C"			EPA 8260B AROMATIC VOCs by GC/MS, Medium-Level		11/30/2009	
				EPA 5035,methanol preserved	11/19/2009	R43738	
0911032-02B				EPA 1010 Ignitability		11/25/2009	
						R43712	
				EPA 6010B ICP METALS, TCLP		12/1/2009	
				EPA 3010 TCLP PREP FOR ICP	11/30/2009	19825	11/29/2009

AMRO Environmental Laboratories Corp.

16-Dec-09

Lab Order: 0911032
Client: Moleculoc
Project: Moleculoc Testing

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
0911032-02B	Moleculoc "C"	11/23/2009	Solid	EPA 7.3.3.2 Cyanide, Reactive		11/23/2009 R43719	
				EPA 7.3.4.2 Sulfide, Reactive (Soils/Solids/Waste)		11/23/2009 R43709	
				EPA 7470 MERCURY, TCLP		12/2/2009	
				MERCURY PREP: EPA 7040	12/1/2009	19827	11/29/2009
				EPA 8260B VOLATILES, TCLP Leached		12/1/2009	
				EPA 1311/5030	11/30/2009	R43749	11/30/2009
				EPA 9045C pH/Corrosivity in Soil		11/27/2009 R43727	
				Percent Moisture		11/24/2009 R43717	

DATA COMMENT PAGE

Organic Data Qualifiers

ND	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
H	Method prescribed holding time exceeded.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
#	See Case Narrative

Micro Data Qualifiers

TNTC	Too numerous to count

Inorganic Data Qualifiers

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J	Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
H	Indicates analytical holding time exceedance.
B	Indicates that the analyte is found in the associated blank, as well as in the sample.
MSA	Indicates value determined by the Method of Standard Addition
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
#	See Case Narrative

Report Comments:

1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.