

received 04/08/2014  
Project 8328  
Remediation 200401971  
API 071-09455  
Pit 300991

sources USA, Inc.  
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Client Sample Results

TestAmerica Job ID: 280-53337-1

Client Sample ID: MULE TRAIN 33-24 TOP OF PIT  
Date Collected: 03/20/14 10:54  
Date Received: 03/21/14 09:45  
Lab Sample ID: 280-53337-1  
Matrix: Solid

Method: 20B - Sodium Adsorption Ratio - Soluble									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	13		1.2		No Unit		03/24/14 18:00	03/27/14 18:21	10
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.6		0.11		mg/Kg	☼	03/25/14 13:00	03/25/14 21:21	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.0		0.10		%			03/24/14 21:38	1
General Chemistry - Soluble									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.90		0.100		SU			03/24/14 18:52	1
Specific Conductance	470		19		umhos/cm			03/26/14 21:29	1

# Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-53337-1

**Client Sample ID: MULE TRAIN 33-24 BOTTOM OF PIT**

**Lab Sample ID: 280-53337-2**

**Date Collected: 03/20/14 10:57**

**Matrix: Solid**

**Date Received: 03/21/14 09:45**

**Percent Solids: 62.8**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		8.5		ug/Kg	☼	03/27/14 16:00	03/27/14 22:16	1
Ethylbenzene	ND		8.5		ug/Kg	☼	03/27/14 16:00	03/27/14 22:16	1
Toluene	ND		8.5		ug/Kg	☼	03/27/14 16:00	03/27/14 22:16	1
Xylenes, Total	ND		8.5		ug/Kg	☼	03/27/14 16:00	03/27/14 22:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		58 - 140	03/27/14 16:00	03/27/14 22:16	1
Toluene-d8 (Surr)	133	X	80 - 126	03/27/14 16:00	03/27/14 22:16	1
4-Bromofluorobenzene (Surr)	137	* X	76 - 127	03/27/14 16:00	03/27/14 22:16	1
Dibromofluoromethane (Surr)	96		75 - 121	03/27/14 16:00	03/27/14 22:16	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	2.2		1.8		mg/Kg	☼	03/24/14 14:19	03/25/14 13:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87		77 - 123	03/24/14 14:19	03/25/14 13:31	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	49		6.0		mg/Kg	☼	03/25/14 13:10	03/27/14 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	57		49 - 115	03/25/14 13:10	03/27/14 17:06	1

## Method: 20B - Sodium Adsorption Ratio - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	40		1.2		No Unit		03/24/14 18:00	03/27/14 18:26	10

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	430		1.5		mg/Kg	☼	03/25/14 13:00	03/26/14 10:39	1
Boron	ND		15		mg/Kg	☼	03/25/14 13:00	03/26/14 10:39	1
Cadmium	ND		0.77		mg/Kg	☼	03/25/14 13:00	03/26/14 10:39	1
Calcium	7800		77		mg/Kg	☼	03/25/14 13:00	03/26/14 10:39	1
Magnesium	3600		31		mg/Kg	☼	03/25/14 13:00	03/26/14 10:39	1
Molybdenum	ND		3.1		mg/Kg	☼	03/25/14 13:00	03/26/14 10:39	1
Silver	ND		1.5		mg/Kg	☼	03/25/14 13:00	03/26/14 10:39	1
Sodium	3200		770		mg/Kg	☼	03/25/14 13:00	03/26/14 21:43	1

## Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		0.15		mg/Kg	☼	03/25/14 13:00	03/25/14 21:42	1
Chromium	27		0.30		mg/Kg	☼	03/25/14 13:00	03/25/14 21:42	1
Copper	57		0.38		mg/Kg	☼	03/25/14 13:00	03/25/14 21:42	1
Lead	23		0.15		mg/Kg	☼	03/25/14 13:00	03/25/14 21:42	1
Nickel	25		0.23		mg/Kg	☼	03/25/14 13:00	03/25/14 21:42	1
Selenium	3.0		0.30		mg/Kg	☼	03/25/14 13:00	03/26/14 19:34	1
Zinc	110		1.5		mg/Kg	☼	03/25/14 13:00	03/25/14 21:42	1

TestAmerica Denver

# Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-53337-1

**Client Sample ID: MULE TRAIN 33-24 BOTTOM OF PIT**

**Lab Sample ID: 280-53337-2**

Date Collected: 03/20/14 10:57

Matrix: Solid

Date Received: 03/21/14 09:45

Percent Solids: 62.8

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	85		27		ug/Kg	☼	03/24/14 11:15	03/24/14 17:14	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		6.5		mg/Kg	☼	04/03/14 14:50	04/04/14 16:22	10

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	27		20		mg/Kg	—		04/07/14 16:08	10
Percent Moisture	37		0.10		%			03/24/14 13:36	1

## General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	9.14		0.100		SU	—		03/24/14 18:52	1
Specific Conductance	790		19		umhos/cm			03/26/14 21:29	1

TestAmerica Denver

# Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-53337-1

**Client Sample ID: MULE TRAIN 33-24 NATIVE NORTH**

**Lab Sample ID: 280-53337-3**

Date Collected: 03/20/14 11:07

Matrix: Solid

Date Received: 03/21/14 09:45

Percent Solids: 90.0

## Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.2		0.11		mg/Kg	☼	03/25/14 13:00	03/25/14 21:45	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			03/24/14 21:38	1

# Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-53337-1

**Client Sample ID: MULE TRAIN 33-24 NATIVE EAST**

**Lab Sample ID: 280-53337-4**

Date Collected: 03/20/14 11:10

Matrix: Solid

Date Received: 03/21/14 09:45

Percent Solids: 87.2

## Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.6		0.11		mg/Kg	☼	03/25/14 13:00	03/25/14 21:48	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10		%			03/24/14 21:38	1

## Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-53337-1

**Client Sample ID: MULE TRAIN 33-24 NATIVE SOUTH**

**Lab Sample ID: 280-53337-5**

Date Collected: 03/20/14 11:12

Matrix: Solid

Date Received: 03/21/14 09:45

Percent Solids: 90.1

### Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.7		0.10		mg/Kg	☆	03/25/14 13:00	03/25/14 21:51	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.9		0.10		%			03/24/14 21:38	1

# Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-53337-1

**Client Sample ID: MULE TRAIN 33-24 NATIVE WEST**

**Lab Sample ID: 280-53337-6**

Date Collected: 03/20/14 11:13

Matrix: Solid

Date Received: 03/21/14 09:45

Percent Solids: 84.0

## Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.4		0.11		mg/Kg	☼	03/25/14 13:00	03/25/14 21:54	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		0.10		%			03/24/14 21:38	1