

Table 910-1		PIONEER NATURAL RESOURCES		
CONCENTRATION LEVELS		sampled 7.26.17		
Contaminant of Concern	Concentrations	Units	JUSTIN 32-10 P&A TOP OF PIT SS	JUSTIN 32-10 P&A BOTTOM OF PIT SS
Organic Compounds in Soil				
TPH (Gasoline Range Organics)		mg/kg		ND
TPH (Diesel Range Organics)	500	mg/kg		19
Benzene	0.17	mg/kg		ND
Toluene	85	mg/kg		ND
Ethylbenzene	100	mg/kg		ND
Xylenes (total)	175	mg/kg		ND
Acenaphthene	1000	mg/kg		
Anthracene	1000	mg/kg		
Benzo(A)anthracene	0.22	mg/kg		
Benzo(B)fluoranthene	0.22	mg/kg		
Benzo(K)fluoranthene	2.2	mg/kg		
Benzo(A)pyrene	0.022	mg/kg		
Chrysene	22	mg/kg		
Dibenzo(A,H)anthracene	0.022	mg/kg		
Fluoranthene	1000	mg/kg		
Fluorene	1000	mg/kg		
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg		
Napthalene	23	mg/kg		
Pyrene	1000	mg/kg		
Organic Compounds in Ground Water				
Benzene	5	µg/l		
Toluene	560 to 1000	µg/l		
Ethylbenzene	700	µg/l		
Xylenes (total)	1400 to 10,000	µg/l		
Inorganics in Soils				
Electrical Conductivity (EC)	<4000 or 2x background	umhos/cm	270	560
Sodium Adsorption Ratio (SAR)	<12	NA	1.6	7.2
pH	6.0-9.0	NA	7.5	7.9
Inorganics in Ground Water				
Total Dissolved Solids (TDS)	<1.25 x background	NA		
Chlorides	<1.25 x background	NA		
Sulfates	<1.25 x background	NA		
Metals in Soils				
Arsenic	0.39	mg/kg		NA
Barium Total	15,000	mg/kg		290
Boron	NA	mg/kg		ND
Boron (Hot Water Soluble)	2	mg/L		NT
Cadmium	70	mg/kg		ND
Chromium (III)	120,000	mg/kg		NA
Chromium (VI)	23	mg/kg		NT
Copper	3,100	mg/kg		32
Lead	400	mg/kg		19
Mercury	23	mg/kg		0.035
Nickel	1,600	mg/kg		18
Selenium	390	mg/kg		0.34
Silver	390	mg/kg		ND
Zinc	23,000	mg/kg		90
Chromium		mg/kg		15
Liquid Hydrocarbons in Soils and Ground Water				
Liquid hydrocarbons including condensate and oil	Below detection level	NA		

NA - not applicable

NT - not tested

ND - below the method detection limit

Cr - if Total Cr is >23 mg/kg, an analysis is completed for Cr VI, to facilitate calculation of Cr III

Client Sample Results

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

TestAmerica Job ID: 280-99881-1

Client Sample ID: JUSTIN 32-10 P&A TOP OF PIT SS

Lab Sample ID: 280-99881-1

Date Collected: 07/26/17 09:49

Matrix: Solid

Date Received: 08/03/17 09:45

Method: 20B - Sodium Adsorption Ratio - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	1.6		1.2		No Unit		08/07/17 17:30	08/08/17 21:28	10
Sodium	46		10		mg/Kg		08/07/17 17:30	08/08/17 21:28	10
Calcium	45		2.0		mg/Kg		08/07/17 17:30	08/08/17 21:28	10
Magnesium	10		2.0		mg/Kg		08/07/17 17:30	08/08/17 21:28	10

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	29.5		0.1		%			08/04/17 16:13	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.1		SU		08/10/17 06:06	08/10/17 14:15	1
Specific Conductance (25C)	270		10		umhos/cm		08/10/17 06:06	08/11/17 13:30	1

Client Sample Results

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

TestAmerica Job ID: 280-99881-1

Client Sample ID: JUSTIN 32-10 P&A BOTTOM OF PIT SS

Lab Sample ID: 280-99881-2

Date Collected: 07/26/17 09:52

Matrix: Solid

Date Received: 08/03/17 09:45

Percent Solids: 76.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0068		mg/Kg	☼	08/08/17 16:00	08/08/17 23:30	1
Ethylbenzene	ND		0.0068		mg/Kg	☼	08/08/17 16:00	08/08/17 23:30	1
Toluene	ND		0.0068		mg/Kg	☼	08/08/17 16:00	08/08/17 23:30	1
Xylenes, Total	ND		0.0068		mg/Kg	☼	08/08/17 16:00	08/08/17 23:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	129		58 - 140	08/08/17 16:00	08/08/17 23:30	1
Toluene-d8 (Surr)	105		80 - 126	08/08/17 16:00	08/08/17 23:30	1
4-Bromofluorobenzene (Surr)	111		76 - 127	08/08/17 16:00	08/08/17 23:30	1
Dibromofluoromethane (Surr)	117		75 - 121	08/08/17 16:00	08/08/17 23:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		1.5		mg/Kg	☼	08/08/17 10:39	08/08/17 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	73	X	77 - 123	08/08/17 10:39	08/08/17 17:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	19		5.2		mg/Kg	☼	08/04/17 11:05	08/15/17 15:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	68		49 - 115	08/04/17 11:05	08/15/17 15:14	1

Method: 20B - Sodium Adsorption Ratio - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	7.2		1.2		No Unit		08/07/17 17:30	08/08/17 21:30	10

Method: 6010B - Total Metals

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	290		1.1		mg/Kg	☼	08/08/17 07:05	08/08/17 19:48	1
Boron	ND	F1 F2	11		mg/Kg	☼	08/08/17 07:05	08/08/17 19:48	1
Cadmium	ND		0.57		mg/Kg	☼	08/08/17 07:05	08/08/17 19:48	1
Calcium	5200		57		mg/Kg	☼	08/08/17 07:05	08/08/17 19:48	1
Magnesium	3300		23		mg/Kg	☼	08/08/17 07:05	08/08/17 19:48	1
Molybdenum	ND	* F2	2.3		mg/Kg	☼	08/08/17 07:05	08/09/17 18:18	1
Silver	ND		1.1		mg/Kg	☼	08/08/17 07:05	08/08/17 19:48	1
Sodium	ND	F1	570		mg/Kg	☼	08/08/17 07:05	08/08/17 19:48	1

Method: 6020 - Total Metals by ICP-MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	15		0.25		mg/Kg	☼	08/07/17 07:08	08/07/17 17:04	1
Copper	32		0.31		mg/Kg	☼	08/07/17 07:08	08/07/17 17:04	1
Lead	19		0.12		mg/Kg	☼	08/07/17 07:08	08/07/17 17:04	1
Nickel	18		0.19		mg/Kg	☼	08/07/17 07:08	08/07/17 17:04	1
Selenium	0.34		0.25		mg/Kg	☼	08/07/17 07:08	08/07/17 17:04	1
Zinc	90		1.2		mg/Kg	☼	08/07/17 07:08	08/07/17 17:04	1

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-99881-1

Client Sample ID: JUSTIN 32-10 P&A BOTTOM OF PIT SS

Lab Sample ID: 280-99881-2

Date Collected: 07/26/17 09:52

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Percent Solids: 76.7

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.023		mg/Kg	☼	08/04/17 12:06	08/04/17 14:14	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.3		0.1		%	—		08/04/17 16:13	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.1		SU	—	08/10/17 06:06	08/10/17 14:15	1
Specific Conductance (25C)	560		10		umhos/cm	—	08/10/17 06:06	08/11/17 13:30	1