

0 375 750 1,500  
Feet

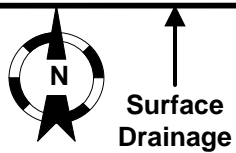


## Figure 1

Site Location Map  
Loustalet 42-15  
SENE S15 T5N R64W  
Weld County, Colorado

Drawn By: DBA  
Date: 11/21/2013





Note: Surface drainage direction is estimated based on site topography and is not related to regional topography.

DRAWN BY: CAW

DATE: 11/20/2013

**Facility Diagram**  
PDC Energy – DJ Basin  
Loustalet 42-15  
SENE S15 T5N R64W  
Weld County, CO



6899 Pecos Street  
Unit C  
Denver, CO 80221

LEGEND

- Former Vault Location
- Earthen Berm
- X Soil Sample Location

M

Meter House

FIGURE 2  
SAMPLE LOCATION  
MAP  
Not to Scale

**TABLE 1**  
**LOUSTALET 42-15**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**

Sample ID	Date Sampled	Depth (Feet bgs)	PID Readings (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	TPH <sup>(2)</sup> (mg/kg)
SS01	11/11/2013	6	0	<0.002	<0.005	<0.005	<0.010	<0.010	<50
<b>COGCC standards for soil (mg/kg) <sup>(1)</sup></b>				<b>0.17</b>	<b>85</b>	<b>100</b>	<b>175</b>	<b>23</b>	<b>500</b>

Notes:

1). Standards for Soil are taken from 2 CCR 404-1, Table 910-1, effective April 1, 2009.

2). TPH - Total volatile and extractable petroleum hydrocarbons. Value calculated by adding GRO and DRO concentrations.

GRO - Gasoline range organics                      DRO - Diesel range organics

mg/kg - Milligrams per kilogram                      bgs - Below ground surface

ppm - Parts per million

**Bold** red values indicate an exceedance of the COGCC soil standards for the Site.

## **ATTACHMENT A**

# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

November 12, 2013

Brandon Bruns  
PDC Energy  
1775 Sherman St. STE. 3000  
Denver, CO 80203  
RE: Loustalet 42-15

Enclosed are the results of analyses for samples received by Summit Scientific on 11/11/13 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS' or 'Shrewsbury', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury  
President / Laboratory Manager







PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Loustalet 42-15  
Project Number: [none]  
Project Manager: Brandon Brunns

**Reported:**  
11/12/13 20:46

**SS01@6**  
**R311065-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: 11/11/13 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	3111114	11/11/13	11/11/13	8015M	

Date Sampled: 11/11/13 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		107 %	30-150		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: 11/11/13 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	3111113	11/11/13	11/11/13	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 11/11/13 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.1 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Loustalet 42-15  
Project Number: [none]  
Project Manager: Brandon Brunns

**Reported:**  
11/12/13 20:46

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 3111114 - EPA 3550A**

**Blank (3111114-BLK1)**

Prepared & Analyzed: 11/11/13

C10-C28 (DRO) ND 50 mg/kg

**LCS (3111114-BS1)**

Prepared & Analyzed: 11/11/13

C10-C28 (DRO) 512 50 mg/kg 501 102 73-134

**Matrix Spike (3111114-MS1)**

**Source: R311062-01**

Prepared & Analyzed: 11/11/13

C10-C28 (DRO) 521 50 mg/kg 467 20.3 107 50-148

**Matrix Spike Dup (3111114-MSD1)**

**Source: R311062-01**

Prepared: 11/11/13 Analyzed: 11/12/13

C10-C28 (DRO) 470 50 mg/kg 461 20.3 97.4 50-148 10.3 13

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Loustalet 42-15  
Project Number: [none]  
Project Manager: Brandon Bruns

**Reported:**  
11/12/13 20:46

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 3111113 - EPA 5030 Soil MS**

**Blank (3111113-BLK1)**

Prepared & Analyzed: 11/11/13

Naphthalene	ND	0.010	mg/kg							
Benzene	ND	0.0020	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0419</i>		<i>"</i>	<i>0.0397</i>		<i>105</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.5</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0411</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>21-167</i>			

**LCS (3111113-BS1)**

Prepared & Analyzed: 11/11/13

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0914	0.0020	"	0.100		91.4	58-130			
Toluene	0.106	0.0050	"	0.100		106	61-134			
Ethylbenzene	0.129	0.0050	"	0.100		129	74-139			
m,p-Xylene	0.243	0.010	"	0.200		122	73-137			
o-Xylene	0.119	0.0050	"	0.100		119	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0424</i>		<i>"</i>	<i>0.0397</i>		<i>107</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0398</i>		<i>"</i>	<i>0.0400</i>		<i>99.5</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0403</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>21-167</i>			

**Matrix Spike (3111113-MS1)**

Source: R311062-01

Prepared & Analyzed: 11/11/13

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0846	0.0020	"	0.0933	ND	90.7	30-131			
Toluene	0.0982	0.0050	"	0.0933	ND	105	30-134			
Ethylbenzene	0.120	0.0050	"	0.0933	ND	129	22-153			
m,p-Xylene	0.226	0.010	"	0.187	ND	121	10-159			
o-Xylene	0.112	0.0050	"	0.0933	ND	120	31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0414</i>		<i>"</i>	<i>0.0370</i>		<i>112</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0372</i>		<i>"</i>	<i>0.0373</i>		<i>99.8</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0372</i>		<i>"</i>	<i>0.0373</i>		<i>99.6</i>	<i>21-167</i>			

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Loustalet 42-15  
Project Number: [none]  
Project Manager: Brandon Bruns

Reported:  
11/12/13 20:46

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 3111113 - EPA 5030 Soil MS**

Matrix Spike Dup (3111113-MSD1)		Source: R311062-01			Prepared & Analyzed: 11/11/13					
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0816	0.0020	"	0.0898	ND	90.9	30-131	3.61	34	
Toluene	0.0947	0.0050	"	0.0898	ND	105	30-134	3.67	30	
Ethylbenzene	0.117	0.0050	"	0.0898	ND	130	22-153	3.24	24	
m,p-Xylene	0.220	0.010	"	0.180	ND	123	10-159	2.80	68	
o-Xylene	0.108	0.0050	"	0.0898	ND	120	31-151	3.82	38	
<hr/>										
Surrogate: 1,2-Dichloroethane-d4	0.0388		"	0.0356		109	23-173			
Surrogate: Toluene-d8	0.0356		"	0.0359		99.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0357		"	0.0359		99.5	21-167			

Summit Scientific

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1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Loustalet 42-15

Project Number: [none]  
Project Manager: Brandon Bruns

**Reported:**  
11/12/13 20:46

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

A handwritten signature in black ink, appearing to be 'JMM'.