



07/26/2010

Noble Energy Inc.

Todd Cullum

804 Grand Avenue

Platteville

CO

80651

Project Name- Loyd Farm 1-32

Project Number- [none]

Attached are your analytical results for Loyd Farm 1-32 received by Origins Laboratory, Inc. July 16, 2010 10:30 am. This project is associated with Origins project number X007135-01 .

The analytical results in the following report were analyzed under the guidelines of EPA Methods specified in SW-846. The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all,

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



Noble Energy Inc.
804 Grand Avenue
Platteville CO 80651

Todd Cullum
Project Number: [none]
Project: Loyd Farm 1-32

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
SS-C-6	X007135-01	Soil	7/15/2010 2:20:00PM	07/16/2010 10:30

Origins Laboratory, Inc.



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Noelle E Doyle,

Todd Cullum
Project Number: [none]
Project: Loyd Farm 1-32

X007135

page 1 of 1

originslaboratory.com

Project Manager: Todd Cullum

Project Name- Lodd Farm 1-32

Project Number-

Samples Collected by - T. J. C.

Client: Noble Energy Inc.

Address: 804 Grand Ave

Alfalfa Co. 80651

970-785-5000

11/01/10 @ noblecncandinc.com

$$f(x) = \frac{1}{x^2}$$

Sample ID - Description	Date Sampled	Time Sampled	Number of Containers	Preservative						Matrix			Analysis					Sample Instructions
				Unpreserved	HCl	HNO ₃	Other -	Groundwater	Soil	Air - Summa Canister #	Other -	BTEX	TPH	SAR	PH	EC		
SS-C-6	7-15-10	2:20 PM	2						X									
Relinquished by:	Date			Time	Received by:		Date	Time									Temperature Upon Receipt:	
1 Mike Cullen	7-16-10			10:30 AM													Turn Around Time:	
Relinquished by:	Date			Time	Received by:		Date	Time	Same Day	24-hr	48-hr	Standard	72-hr					
					[Signature]		7-16-10	10:30						X				

640 North Pecos Street Unit C Denver, Colorado 80211 Laboratory - 303.433.1322 Fax - 303.265.9645

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804 Grand Avenue
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Todd Cullum
Project Number: [none]
Project: Loyd Farm 1-32

SS-C-6

7/15/2010 2:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X007135-01 (Soil)

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	OG16001	07/16/2010	07/17/2010	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	103 %	77.6-134			"	"	"	
Surrogate: Toluene-d8	99.6 %	81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	74.7-123			"	"	"	

Conductivity by E120.1

Conductivity	2300	2	US/CM	1	815299	07/20/2010	07/20/2010	
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Percent Moisture by AD2216A

Percent Moisture	22.9	1	%	1	815132	07/19/2010	07/19/2010	
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pH by SW9045C

pH	9.39		SU	1	815274	07/20/2010	07/20/2010	
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Sodium Absorption Ratio (SAR) by S29B08

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Project: Loyd Farm 1-32

SS-C-6**7/15/2010 2:20:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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XENCO**X007135-01 (Soil)****Sodium Absorption Ratio (SAR) by S29B08**

Sodium absorption ratio	5.13			1	815744	07/22/2010	07/22/2010
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TPH-Carbon Chain by EPA Method 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OG16003	07/16/2010	07/17/2010
Diesel (C10-C28)	51.3	50.0	"	"	"	"	"
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"
TPH - Carbon Chain Total	51.3	50.0	"	"	"	"	"

Surrogate: o-Terphenyl	96.0 %	65-140	"	"	"
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Extractable Petroleum Hydrocarbons by 8015M - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch OG16003 - Default Prep GC-Semi										
Blank (OG16003-BLK1)					Prepared: 07/16/2010 Analyzed: 07/17/2010					
Gasoline (C6-C10)	ND	50.0	mg/kg							
Diesel (C10-C28)	ND	50.0	"							
Residual Range Organics (C28-C36)	ND	200	"							
TPH - Carbon Chain Total	ND	50.0	"							
<i>Surrogate: o-Terphenyl</i>	<i>52.0</i>		<i>g</i>	<i>50.0</i>		<i>104</i>	<i>65-140</i>			
LCS (OG16003-BSI)					Prepared: 07/16/2010 Analyzed: 07/17/2010					
Gasoline (C6-C10)	128	50.0	mg/kg				65-140			
Diesel (C10-C28)	503	50.0	"	500		101	60-140			
<i>Surrogate: o-Terphenyl</i>	<i>58.6</i>		<i>g</i>	<i>50.0</i>		<i>117</i>	<i>65-140</i>			
Matrix Spike (OG16003-MS1)					Source: X007112-01	Prepared: 07/16/2010 Analyzed: 07/17/2010				
Gasoline (C6-C10)	122	50.0	mg/kg		ND		65-130			
Diesel (C10-C28)	2340	50.0	"	500	1530	162	60-140			QM-05
<i>Surrogate: o-Terphenyl</i>	<i>50.7</i>		<i>g</i>	<i>50.0</i>		<i>101</i>	<i>65-140</i>			
Matrix Spike Dup (OG16003-MSD1)					Source: X007112-01	Prepared: 07/16/2010 Analyzed: 07/17/2010				
Gasoline (C6-C10)	131	50.0	mg/kg		ND		65-130	7.06	20	
Diesel (C10-C28)	2280	50.0	"	500	1530	151	60-140	2.35	25	QM-05
<i>Surrogate: o-Terphenyl</i>	<i>52.9</i>		<i>g</i>	<i>50.0</i>		<i>106</i>	<i>65-140</i>			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch OG16001 - EPA 5030B

Blank (OG16001-BLK1)

Prepared: 07/16/2010 Analyzed: 07/16/2010

Benzene	ND	0.004	mg/kg
Toluene	ND	0.004	"
Ethylbenzene	ND	0.004	"
m,p-Xylene	ND	0.008	"
o-Xylene	ND	0.004	"

Surrogate: 1,2-Dichloroethane-d4	69.1	ug/L	62.5	111	77.6-134
Surrogate: Toluene-d8	63.5	"	62.5	102	81.4-121
Surrogate: 4-Bromofluorobenzene	66.2	"	62.5	106	74.7-123

LCS (OG16001-BS1)

Prepared: 07/16/2010 Analyzed: 07/16/2010

Benzene	0.19	0.004	mg/kg	0.200	93.8	75.2-128
Toluene	0.18	0.004	"	0.200	90.2	76.3-130

Surrogate: 1,2-Dichloroethane-d4	68.5	ug/L	62.5	110	77.6-134
Surrogate: Toluene-d8	64.3	"	62.5	103	81.4-121
Surrogate: 4-Bromofluorobenzene	63.0	"	62.5	101	74.7-123

Matrix Spike (OG16001-MS1)

Source: X007131-01

Prepared: 07/16/2010 Analyzed: 07/16/2010

Benzene	0.18	0.004	mg/kg	0.200	ND	92.5	77.6-132
Toluene	0.18	0.004	"	0.200	0.0007	89.2	74-136

Surrogate: 1,2-Dichloroethane-d4	69.8	ug/L	62.5	112	77.6-134
Surrogate: Toluene-d8	65.0	"	62.5	104	81.4-121
Surrogate: 4-Bromofluorobenzene	61.8	"	62.5	98.9	74.7-123

Matrix Spike Dup (OG16001-MSD1)

Source: X007131-01

Prepared: 07/16/2010 Analyzed: 07/16/2010

Benzene	0.18	0.004	mg/kg	0.200	ND	92.5	77.6-132	0.00	13.1
Toluene	0.17	0.004	"	0.200	0.0007	86.4	74-136	3.20	20.9

Surrogate: 1,2-Dichloroethane-d4	69.2	ug/L	62.5	111	77.6-134
Surrogate: Toluene-d8	65.1	"	62.5	104	81.4-121
Surrogate: 4-Bromofluorobenzene	61.6	"	62.5	98.6	74.7-123

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**Conductivity by E120.1 - Quality Control
XENCO**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 815299 - NONE										
LCS (815299-1-BKS)		Source: 815299-1-BKS			Prepared: 07/20/2010 Analyzed: 07/20/2010					
Conductivity	1420	2	US/CM	1410	±1.00	101	80-120	0	20	
BLANK (815299-1-BLK)		Source: 815299-1-BLK			Prepared: 07/20/2010 Analyzed: 07/20/2010					
Conductivity	ND	2	US/CM	0.00			-	0	20	

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Percent Moisture by AD2216A - Quality Control XENCO

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 815132 - NONE

BLANK (815132-1-BLK)

Source: 815132-1-BLK

Prepared: 07/19/2010 Analyzed: 07/19/2010

Percent Moisture	ND	1	%	0.00	-	0	20
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Notes and Definitions

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- I Sample result was found between MDL and RL
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference

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