

November 16, 2010

Noble Energy Inc.

Todd Cullum

804 Grand Avenue

Platteville

CO

80651

Project Name- Dillard AB 10-7

Project Number- [none]

Attached are your analytical results for Dillard AB 10-7 received by Origins Laboratory, Inc. November 12, 2010 10:30 am. This project is associated with Origins project number X011082-01 .

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: Dillard AB 10-7

**CROSS REFERENCE REPORT**

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
SS-2A	X011082-01	Soil	11/11/2010 10:20:00AM	11/12/2010 10:30
SS-4A	X011082-02	Soil	11/11/2010 10:35:00AM	11/12/2010 10:30
SS-7A	X011082-03	Soil	11/11/2010 10:50:00AM	11/12/2010 10:30
SS-12A	X011082-04	Soil	11/11/2010 11:20:00AM	11/12/2010 10:30

Origins Laboratory, Inc.



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\_\_\_\_\_  
Noelle E Doyle.



Noble Energy Inc.  
 804 Grand Avenue  
 Platteville CO 80651

Todd Cullum  
 Project Number: [none]  
 Project: Dillard AB 10-7

**SS-2A**

11/11/2010 10:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
 X011082-01 (Soil)

**BTEX by EPA 8260B**

Benzene	ND	0.00400	mg/kg	1	OK15002	11/15/2010	11/15/2010	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	114 %	77.6-134			"	"	"	
Surrogate: Toluene-d8	99.7 %	81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.5 %	74.7-123			"	"	"	

**TPH-Carbon Chain by EPA Method 8015M**

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OK15003	11/15/2010	11/15/2010	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	
TPH - Carbon Chain Total	ND	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl	97.5 %	65-140			"	"	"	
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Origins Laboratory, Inc.



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Noble Energy Inc.  
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Platteville CO 80651

Todd Cullum  
Project Number: [none]  
Project: Dillard AB 10-7

**SS-4A**

11/11/2010 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
X011082-02 (Soil)

**BTEX by EPA 8260B**

Benzene	ND	0.00400	mg/kg	1	OK15002	11/15/2010	11/15/2010	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	113 %	77.6-134			"	"	"	
Surrogate: Toluene-d8	99.1 %	81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.1 %	74.7-123			"	"	"	

**TPH-Carbon Chain by EPA Method 8015M**

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OK15003	11/15/2010	11/15/2010	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	
TPH - Carbon Chain Total	ND	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl	92.8 %	65-140			"	"	"	
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804 Grand Avenue  
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Project Number: [none]  
Project: Dillard AB 10-7

**SS-7A**

11/11/2010 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
X011082-03 (Soil)

**BTEX by EPA 8260B**

Benzene	ND	0.00400	mg/kg	1	OK15002	11/15/2010	11/15/2010	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	115 %	77.6-134			"	"	"	
Surrogate: Toluene-d8	101 %	81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.2 %	74.7-123			"	"	"	

**TPH-Carbon Chain by EPA Method 8015M**

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OK15003	11/15/2010	11/15/2010	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	
TPH - Carbon Chain Total	ND	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl	93.5 %	65-140			"	"	"	
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 804 Grand Avenue  
 Platteville CO 80651

Todd Cullum  
 Project Number: [none]  
 Project: Dillard AB 10-7

**SS-12A**

11/11/2010 11:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
 X011082-04 (Soil)

**BTEX by EPA 8260B**

Benzene	ND	0.00400	mg/kg	1	OK15002	11/15/2010	11/15/2010	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	114 %	77.6-134			"	"	"	
Surrogate: Toluene-d8	100 %	81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.3 %	74.7-123			"	"	"	

**TPH-Carbon Chain by EPA Method 8015M**

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OK15003	11/15/2010	11/15/2010	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	
TPH - Carbon Chain Total	ND	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl	94.8 %	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
<b>Batch OK15003 - Default Prep GC-Semi</b>										
<b>Blank (OK15003-BLK1)</b>					Prepared: 11/15/2010 Analyzed: 11/15/2010					
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>46.8</i>		<i>g</i>	<i>50.0</i>		<i>93.6</i>	<i>65-140</i>			
<b>LCS (OK15003-BSI)</b>					Prepared: 11/15/2010 Analyzed: 11/15/2010					
Gasoline (C6-C10)	59.2	50.0	mg/kg				65-140			
Diesel (C10-C28)	423	50.0	"	500		84.6	60-140			
<i>Surrogate: o-Terphenyl</i>	<i>48.9</i>		<i>g</i>	<i>50.0</i>		<i>97.8</i>	<i>65-140</i>			
<b>Matrix Spike (OK15003-MS1)</b>		Source: X011082-01			Prepared: 11/15/2010 Analyzed: 11/15/2010					
Gasoline (C6-C10)	64.2	50.0	mg/kg		ND		65-130			
Diesel (C10-C28)	465	50.0	"	500	ND	93.0	60-140			
<i>Surrogate: o-Terphenyl</i>	<i>49.8</i>		<i>g</i>	<i>50.0</i>		<i>99.6</i>	<i>65-140</i>			
<b>Matrix Spike Dup (OK15003-MSD1)</b>		Source: X011082-01			Prepared: 11/15/2010 Analyzed: 11/15/2010					
Gasoline (C6-C10)	66.4	50.0	mg/kg		ND		65-130	3.42	20	
Diesel (C10-C28)	486	50.0	"	500	ND	97.2	60-140	4.41	25	
<i>Surrogate: o-Terphenyl</i>	<i>51.4</i>		<i>g</i>	<i>50.0</i>		<i>103</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 OK15002 - EPA 5030B**

**Blank (OK15002-BLK1)**

Prepared: 11/15/2010 Analyzed: 11/15/2010

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	66.9		ug/L	62.5		107	77.6-134			
Surrogate: Toluene-d8	62.4		"	62.5		99.9	81.4-121			
Surrogate: 4-Bromofluorobenzene	59.1		"	62.5		94.6	74.7-123			

**LCS (OK15002-BSI)**

Prepared: 11/15/2010 Analyzed: 11/15/2010

Benzene	0.21	0.004	mg/kg	0.200		104	75.2-128			
Toluene	0.22	0.004	"	0.200		110	76.3-130			
Surrogate: 1,2-Dichloroethane-d4	64.8		ug/L	62.5		104	77.6-134			
Surrogate: Toluene-d8	61.4		"	62.5		98.3	81.4-121			
Surrogate: 4-Bromofluorobenzene	58.9		"	62.5		94.2	74.7-123			

**Matrix Spike (OK15002-MSI)**

Source: X011079-01

Prepared: 11/15/2010 Analyzed: 11/15/2010

Benzene	0.21	0.004	mg/kg	0.200	ND	104	77.6-132			
Toluene	0.21	0.004	"	0.200	ND	107	74-136			
Surrogate: 1,2-Dichloroethane-d4	66.4		ug/L	62.5		106	77.6-134			
Surrogate: Toluene-d8	62.0		"	62.5		99.2	81.4-121			
Surrogate: 4-Bromofluorobenzene	57.3		"	62.5		91.7	74.7-123			

**Matrix Spike Dup (OK15002-MSD1)**

Source: X011079-01

Prepared: 11/15/2010 Analyzed: 11/15/2010

Benzene	0.21	0.004	mg/kg	0.200	ND	103	77.6-132	0.737	13.1	
Toluene	0.21	0.004	"	0.200	ND	106	74-136	0.904	20.9	
Surrogate: 1,2-Dichloroethane-d4	66.8		ug/L	62.5		107	77.6-134			
Surrogate: Toluene-d8	61.3		"	62.5		98.1	81.4-121			
Surrogate: 4-Bromofluorobenzene	57.6		"	62.5		92.2	74.7-123			

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804 Grand Avenue  
Platteville CO 80651

Todd Cullum  
Project Number: [none]  
Project: Dillard AB 10-7

**Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit  
RPD Relative Percent Difference

Origins Laboratory, Inc.



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