

Chris Carroll  
 Colorado Geological Survey  
 1313 Sherman St, Rm 715  
 Denver, CO 80203

Date: February 25, 2011  
 Request Number: 28987  
 Date Received: 2-10-11  
 Lab Number: M7383  
 Sample ID: **Hwy 51 270'**

**REPORT OF ANALYSIS**

<b>Proximate Analysis</b> <b>Method: ASTM D-5142</b>	As Received	Moisture Free	MAF Basis
Moisture, wt%	0.89	*****	*****
Ash, wt%	28.54	28.80	*****
Volatile Matter, wt%	22.45	22.65	31.81
Fixed Carbon, wt%	48.12	48.55	68.19
Total	100.00	100.00	100.00

<b>Ultimate Analysis</b> <b>Method: ASTM D5142/5373</b>			
Moisture, wt%	0.89	*****	*****
Ash, wt%	28.54	28.80	*****
Carbon, wt%	60.55	61.10	85.81
Hydrogen, wt%	3.40	3.43	4.82
Nitrogen, wt%	1.06	1.07	1.50
Sulfur, wt%	5.22	5.26	7.39
Oxygen, wt%	0.34	0.34	0.48
Total	100.00	100.00	100.00

<b>Heating Value, Btu/lb</b> <b>Method: ASTM D-5865</b>			
	10,630	10,726	15,064

Hydrogen and Oxygen values reported do not include hydrogen and oxygen in the free moisture associated with the sample.

<b>Total Metals Analysis</b> <b>Method: 3052/6020</b>		Reporting limit, mg/kg
Chromium, mg/kg	1.51	0.01
Arsenic, mg/kg	12.4	0.01
Selenium, mg/kg	19.1	0.01
Silver, mg/kg	0.104	0.01
Cadmium, mg/kg	0.221	0.01
Barium, mg/kg	105	0.01
Mercury, mg/kg	0.063	0.01
Lead, mg/kg	24.7	0.01

Monte L. Ellis  
 Laboratory Manager



**WYOMING ANALYTICAL LABORATORIES, INC.**

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Date: February 25, 2011  
 Request Number: 28987  
 Date Received: 2-10-11  
 Lab Number: M7384  
 Sample ID: **Los Pinos 416'**

**REPORT OF ANALYSIS**

<b>Proximate Analysis</b> Method: ASTM D-5142	As Received	Moisture Free	MAF Basis
Moisture, wt%	1.26	*****	*****
Ash, wt%	24.96	25.28	*****
Volatile Matter, wt%	27.63	27.98	37.45
Fixed Carbon, wt%	46.15	46.74	62.55
Total	100.00	100.00	100.00

<b>Ultimate Analysis</b> Method: ASTM D5142/5373	As Received	Moisture Free	MAF Basis
Moisture, wt%	1.26	*****	*****
Ash, wt%	24.96	25.28	*****
Carbon, wt%	62.89	63.69	85.24
Hydrogen, wt%	3.76	3.81	5.10
Nitrogen, wt%	1.24	1.26	1.69
Sulfur, wt%	0.90	0.91	1.21
Oxygen, wt%	4.99	5.05	6.76
Total	100.00	100.00	100.00

<b>Heating Value, Btu/lb</b> Method: ASTM D-5865	As Received	Moisture Free	MAF Basis
	10,867	11,005	14,729

Hydrogen and Oxygen values reported do not include hydrogen and oxygen in the free moisture associated with the sample.

<b>Total Metals Analysis</b> Method: 3052/6020		Reporting limit, mg/kg
Chromium, mg/kg	1.58	0.01
Arsenic, mg/kg	1.92	0.01
Selenium, mg/kg	9.26	0.01
Silver, mg/kg	0.073	0.01
Cadmium, mg/kg	0.312	0.01
Barium, mg/kg	111	0.01
Mercury, mg/kg	0.048	0.01
Lead, mg/kg	13.4	0.01

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Date: February 25, 2011  
 Request Number: 28987  
 Date Received: 2-10-11  
 Lab Number: M7385  
 Sample ID: **Fosset Gulch 487'**

**REPORT OF ANALYSIS**

<b>Proximate Analysis</b> <b>Method: ASTM D-5142</b>	As Received	Moisture Free	MAF Basis
Moisture, wt%	0.91	*****	*****
Ash, wt%	14.27	14.40	*****
Volatile Matter, wt%	26.89	27.14	31.71
Fixed Carbon, wt%	57.93	58.46	68.29
Total	100.00	100.00	100.00

<b>Ultimate Analysis</b> <b>Method: ASTM D5142/5373</b>			
Moisture, wt%	0.91	*****	*****
Ash, wt%	14.27	14.40	*****
Carbon, wt%	75.67	76.37	89.22
Hydrogen, wt%	4.17	4.20	4.91
Nitrogen, wt%	1.45	1.47	1.71
Sulfur, wt%	0.79	0.79	0.93
Oxygen, wt%	2.74	2.77	3.23
Total	100.00	100.00	100.00

<b>Heating Value, Btu/lb</b> <b>Method: ASTM D-5865</b>			
	13,203	13,324	15,567

Hydrogen and Oxygen values reported do not include hydrogen and oxygen in the free moisture associated with the sample.

<b>Total Metals Analysis</b> <b>Method: 3052/6020</b>		Reporting limit, mg/kg
Chromium, mg/kg	0.932	0.01
Arsenic, mg/kg	3.32	0.01
Selenium, mg/kg	16.8	0.01
Silver, mg/kg	0.107	0.01
Cadmium, mg/kg	0.148	0.01
Barium, mg/kg	83.7	0.01
Mercury, mg/kg	0.174	0.01
Lead, mg/kg	4.71	0.01

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Date: February 25, 2011  
 Request Number: 28987  
 Date Received: 2-10-11  
 Lab Number: M7386  
 Sample ID: **Basin Creek 589'**

**REPORT OF ANALYSIS**

<b>Proximate Analysis</b> <b>Method: ASTM D-5142</b>	As Received	Moisture Free	MAF Basis
Moisture, wt%	1.16	*****	*****
Ash, wt%	25.27	25.56	*****
Volatile Matter, wt%	26.09	26.40	35.46
Fixed Carbon, wt%	47.48	48.04	64.54
Total	100.00	100.00	100.00

<b>Ultimate Analysis</b> <b>Method: ASTM D5142/5373</b>			
Moisture, wt%	1.16	*****	*****
Ash, wt%	25.27	25.56	*****
Carbon, wt%	64.05	64.80	87.06
Hydrogen, wt%	3.65	3.69	4.96
Nitrogen, wt%	1.15	1.17	1.57
Sulfur, wt%	0.49	0.49	0.66
Oxygen, wt%	4.23	4.29	5.75
Total	100.00	100.00	100.00

<b>Heating Value, Btu/lb</b> <b>Method: ASTM D-5865</b>			
	10,995	11,124	14,943

Hydrogen and Oxygen values reported do not include hydrogen and oxygen in the free moisture associated with the sample.

<b>Total Metals Analysis</b> <b>Method: 3052/6020</b>		Reporting limit, mg/kg
Chromium, mg/kg	1.24	0.01
Arsenic, mg/kg	3.72	0.01
Selenium, mg/kg	21.4	0.01
Silver, mg/kg	0.094	0.01
Cadmium, mg/kg	0.129	0.01
Barium, mg/kg	46.0	0.01
Mercury, mg/kg	0.574	0.01
Lead, mg/kg	13.4	0.01

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Date: February 25, 2011  
 Request Number: 28987  
 Date Received: 2-10-11  
 Lab Number: M7387  
 Sample ID: **Wagon Gulch 816'**

**REPORT OF ANALYSIS**

<b>Proximate Analysis</b> <b>Method: ASTM D-5142</b>	As Received	Moisture Free	MAF Basis
Moisture, wt%	1.41	*****	*****
Ash, wt%	30.68	31.12	*****
Volatile Matter, wt%	26.07	26.44	38.38
Fixed Carbon, wt%	41.84	42.44	61.62
Total	100.00	100.00	100.00

<b>Ultimate Analysis</b> <b>Method: ASTM D5142/5373</b>			
Moisture, wt%	1.41	*****	*****
Ash, wt%	30.68	31.12	*****
Carbon, wt%	57.86	58.68	85.19
Hydrogen, wt%	3.51	3.56	5.16
Nitrogen, wt%	1.04	1.06	1.54
Sulfur, wt%	0.59	0.59	0.86
Oxygen, wt%	4.91	4.99	7.25
Total	100.00	100.00	100.00

<b>Heating Value, Btu/lb</b> <b>Method: ASTM D-5865</b>			
	10,133	10,277	14,919

Hydrogen and Oxygen values reported do not include hydrogen and oxygen in the free moisture associated with the sample.

<b>Total Metals Analysis</b> <b>Method: 3052/6020</b>		Reporting limit, mg/kg
Chromium, mg/kg	1.16	0.01
Arsenic, mg/kg	2.02	0.01
Selenium, mg/kg	11.7	0.01
Silver, mg/kg	0.09	0.01
Cadmium, mg/kg	0.203	0.01
Barium, mg/kg	127	0.01
Mercury, mg/kg	0.034	0.01
Lead, mg/kg	11.4	0.01

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