



SGS NAJ, MINERAL SERVICES DIVISION  
 P.O. BOX 850  
 SOPHIA, WV 25921  
 TEL: (304) 255-0422  
 FAX: (304) 255-0417

OVERBURDEN ANALYSIS

CUSTOMER: AMERICA'S ENERGY  
 HOLE #: B-1  
 CORED: 10/29/2009  
 REPORT DATE: 12/10/2009

SGS BECKLEY LAB #	FROM DEPTH FT	TO DEPTH FT	DEPTH FT	Description	PASTE PH @ 25° C	1 GRAM DRY WT SULFUR	TOTAL SULFUR	PYRITIC SULFUR	SULFATE	Se, Total ug/g	Se, Column mg/l	TONS CaCo3 EQUIV. PER 1000 TONS MATERIAL			
												AMOUNT FROM SULFUR	AMOUNT PRESENT (TTR.)	AMOUNT NEEDED	T.S ABP EXCESS
78906542	0.00	2.00	0.00	WEATHER SANDSTONE	4.4	0.9942	0.01					0.19	7.5*	7.3	NONE
78906543	2.00	4.00	2.00	WEATHER SANDSTONE	4.6	0.9932	0.01					0.22	6.3*	6.1	NONE
78906544	4.00	6.00	4.00	WEATHER SANDSTONE	5.0	0.9936	0.01					0.28	5.0*	4.7	NONE
78906545	6.50	8.70	7.35	SANDSTONE	6.2	0.9986	0.01					0.16	6.0*	5.8	SLIGHT
78906546	8.70	13.70	10.95	SANDSTONE	6.2	0.9984	0.00					0.06	6.2*	6.2	SLIGHT
78906547	13.70	18.70	15.95	SANDSTONE	6.8	0.9958	0.01					0.16	5.0*	4.9	SLIGHT
78906548	18.70	23.70	20.95	SANDSTONE	7.0	0.9983	0.01					0.34	5.0*	4.6	SLIGHT
78906549	23.70	28.30	25.75	SANDSTONE	6.5	0.9980	0.03					0.91	5.5*	4.6	NONE
78906550	28.30	30.30	29.05	CLAYEY SHALE	4.5	0.9881	0.03					1.04	4.5*	3.5	NONE
78906551	30.30	32.30	31.05	SHALE	4.6	0.9887	0.00					0.13	7.6*	7.4	NONE
78906552	32.30	33.70	32.75	CLAY SHALE	5.2	0.9959	0.03					0.88	6.0*	5.1	NONE
78906553	33.70	38.70	35.95	SANDSTONE SHALE	3.8	0.9934	1.74	1.71				53.56	3.8.0*	49.8	NONE

\* Peroxide Used

The Following Methods are Used:  
 Sobek\* 3.2.2 pg 45; Sobek 3.2.3 pg 47; Leico IR detection; Sobek 3.2.9 pg 66;  
 Sobek 3.2.18 pg 91; Sobek 3.2.19 pg 95; Sobek 3.4.3 pg 122; ASTM D2492;  
 Munsell Color Chart; Sobek 2.2.3 pg 28; EACC Memo

Respectfully submitted,  
 SGS NORTH AMERICA INC.  
  
 Beckley Laboratory

Minerals Services Division  
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Member of the SGS Group



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												AP AMOUNT FROM SULFUR	NEUT POT. PRESENT (TTR.)	T.S AMOUNT NEEDED	ABP EXCESS	
78906554	38.70	42.50	40.35	SHALE COAL 39" 8" 42.5 COAL	4.1	0.9907	2.69	2.65				82.75	6.3*	76.5		SLIGHT
78906555	42.50	43.90	42.95	SANDY SHALE	4.1	0.9912	1.98	1.72				53.69	6.0*	47.7		NONE
78906556	43.90	45.90	44.65	SANDY SHALE	4.7	0.9930	0.93	0.91				28.44	7.5*	20.9		NONE
78906557	45.90	48.30	46.85	SANDY SHALE	5.3	0.9936	0.39	0.38				11.91	12.1*	0.0		SLIGHT
78906558	48.30	51.30	49.55	SANDY SHALE	6.0	0.9948	0.12					3.74	11.3*	7.6		NONE
78906559	51.30	53.40	52.10	SANDY SHALE	7.2	0.9948	0.06					1.85	12.1*	10.2		NONE
78906560	53.40	56.40	54.65	SANDY SHALE	6.5	0.9964	0.10					3.14	11.3*	8.1		SLIGHT
78906561	56.40	58.40	57.15	SANDY SHALE	7.1	0.9966	0.12					3.64	13.8*	10.1		SLIGHT
78906562	58.40	61.40	59.65	SANDY SHALE	6.9	0.9952	0.25					7.79	17.1*	9.3		NONE
78906563	61.40	63.40	62.15	SANDY SHALE	6.8	0.9942	0.03					0.91	12.5*	11.6		NONE
78906564	63.40	66.40	64.65	SANDY SHALE	7.7	0.9929	0.02					0.68	16.1*	15.4		NONE

\* Peroxide Used

The Following Methods are Used:  
 Sobek 3.2.2 pg 45; Sobek 3.2.3 pg 47; Leco, IR detection; Sobek 3.2.9 pg 65;  
 Sobek 3.2.18 pg 81; Sobek 3.2.19 pg 95; Sobek 3.4.3 pg 122; ASTM D2492;  
 Munsell Color Chart; Sobek 2.2.3 pg 28; EACC Memo

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*Kimberly E. Hartog*  
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												AMOUNT FROM SULFUR	AMOUNT PRESENT (TITR.)	AMOUNT NEEDED	T.S ABP EXCESS
78906565	68.40	68.40	67.15	SANDY SHALE	7.7	0.9939	0.02					0.63	16.3*	15.7	NONE
78906566	68.40	71.30	69.60	SANDY SHALE	7.2	0.9909	0.05					1.45	12.6*	11.1	NONE
78906567	71.30	73.40	72.10	COAL	5.4	0.9864	0.23					7.22	12.1*	4.9	SLIGHT
78906568	73.40	76.40	74.65	SANDY SHALE	7.8	0.9927	0.01					0.22	12.6*	12.3	SLIGHT
78906569	76.40	78.40	77.15	SANDY SHALE	8.4	0.9969	0.01					0.16	12.0*	11.8	SLIGHT
78906570	78.40	83.40	80.65	SANDSTONE	8.2	0.9970	0.02					0.53	8.8*	8.2	SLIGHT

\* Percentile Used

The Following Methods are Used:  
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 Sobek 3.2.18 pg 91; Sobek 3.2.19 pg 95; Sobek 3.4.3 pg 122; ASTM D2492;  
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