



## SGS NA, MINERAL SERVICES DIVISION

P.O. BOX 850  
SOPHIA, WV 25921  
TEL: (304) 255-0422  
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## OVERBURDEN ANALYSIS

CUSTOMER: AMERICA'S ENERGY  
HOLE #: B-2  
CORED: 10/29/2009  
REPORT DATE: 12/11/2009

SGS BECKLEY LAB #	FROM DEPTH FT	TO DEPTH FT	DEPTH FT	Description	PASTE PH @ 25° C	1 GRAM DRY WT	TOTAL SULFUR	PYRITIC SULFUR	SULFATE	Se, Total ug/g	Se, Column mg/l	TONS CaCo3 EQIV.PER 1000 TONS MATERIAL			FIZZ TEST
												AMOUNT FROM SULFUR	NEUT POT. AMOUNT PRESENT (TITR.)	T.S ABP AMOUNT NEEDED	
78906621	0.00	2.00	0.00	WEATHERED SANDSTONE	5.1	0.9963	0.00					0.09	7.5*	7.4	SLIGHT
78906622	2.00	3.50	2.50	SANDSTONE	6.4	0.9977	0.00					0.09	5.0*	4.9	SLIGHT
78906623	3.50	8.50	5.75	SANDSTONE	6.9	0.9980	0.00					0.06	3.7*	3.7	SLIGHT
78906624	8.50	13.50	10.75	SANDSTONE	7.8	0.9976	0.00					0.06	5.0*	4.9	SLIGHT
78906625	13.50	18.50	13.25	SANDSTONE	7.7	0.9950	0.00					0.06	4.5*	4.5	SLIGHT
78906626	18.50	21.30	19.65	WEATHERED SANDSTONE SHALE	7.7	0.9883	0.00					0.06	5.0*	5.0	SLIGHT
78906627	21.30	22.50	21.65	CLAY	5.6	0.9923	0.01					0.16	10.0*	9.9	NONE
78906628	22.50	23.50	22.65	CLAY SHALEY CLAY	4.8	0.9883	0.03					1.08	6.3*	5.2	NONE
78906629	23.50	26.00	24.50	CLAY	4.5	0.9953	0.08					2.57	5.0*	2.4	NONE
78906630	26.00	28.50	28.00	CLAY	5.9	0.9932	0.14					4.50	7.5*	3.0	NONE
78906631	28.50	29.50	28.75	CLAYEY SHALE	6.3	0.9970	2.97	2.90				90.63	7.5*	83.1	NONE
78906632	29.50	33.50	31.25	29.5 - 33.5 COAL 29.5 21	6.9	0.9847	2.01	1.59				46.69	3.8*	45.9	SLIGHT
78906633	33.50	36.00	34.50	SHALE	5.3	0.9956	0.66	0.60				18.75	8.8*	10.0	NONE
78906634	36.00	38.50	37.00	SHALE	6.0	0.9969	0.41	0.38				11.88	8.5*	3.4	NONE
78906635	38.50	41.00	39.50	SHALE	6.3	0.9980	0.44	0.42				13.13	10.0*	3.1	NONE
78906636	41.00	43.50	42.00	SHALE	6.8	0.9977	0.45	0.43				13.44	10.0*	3.4	NONE

\* Peroxide Used

The Following Methods are Used:

Sobek\* 3.2.2 pg 45; Sobek 3.2.3 pg 47; Leco IR decton; Sobek 3.2.8 pg 65;  
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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TONS CaCo3 EQIV.PER 1000 TONS MATERIAL		
AP	NEUT POT.	T.S ABP

SGS BECKLEY LAB #	FROM DEPTH FT	TO DEPTH FT	DEPTH FT	Description	PASTE PH @ 25° C	1 GRAM DRY WT	TOTAL SULFUR	PYRITIC SULFUR	SULFATE	Se, Total ug/g	Se, Column mg/l	AMOUNT FROM SULFUR	AMOUNT PRESENT (TITR.)	AMOUNT NEEDED	AMOUNT EXCESS	FIZZ TEST
78906637	43.50	46.00	44.50	SHALE	6.6	0.9977	0.28					8.64	8.7*	0.1	NONE	
78906638	46.00	48.50	47.00	SHALE	7.5	0.9990	0.19					5.88	11.2*	5.3	SLIGHT	
78906639	48.50	51.00	49.50	SHALE	7.8	0.9978	0.05					1.47	12.0*	10.5	NONE	
78906640	51.00	53.50	52.00	SHALE	7.8	0.9976	0.05					1.57	12.5*	10.9	NONE	
78906641	53.50	56.00	54.50	SHALE	7.5	0.9962	0.05					1.44	10.0*	8.6	NONE	
78906642	56.00	58.50	57.00	SHALE	7.2	0.9957	0.04					1.26	13.8*	12.5	NONE	
78906643	58.50	60.90	59.45	58.5 - 63.3 SHALE CLAY	7.1	0.9962	0.02					0.66	12.5*	11.9	NONE	
78906644	60.90	63.30	61.85	58.5 - 63.3 SHALE CLAY	6.6	0.9970	0.01					0.28	12.5*	12.2	SLIGHT	
78906645	63.30	64.50	63.65	63.3 - 68.3 COAL@ 63.3 - 64'5"	5.4	0.9902	0.12					3.85	7.6*	3.7	SLIGHT	
78906646	64.50	66.40	65.20	63.3 - 68.3 COAL@ 63.3 - 64'5"	5.5	0.9965	0.43	0.04				1.25	8.5*		NONE	
78906647	66.40	68.30	67.10	63.3 - 68.3 COAL@ 63.3 - 64'5"	5.4	0.9987	0.04					1.35	10.0*	8.6	NONE	
78906648	68.30	73.30	70.55	SANDSTONE	6.8	0.9973	0.24					7.61	8.8*	1.2	NONE	

\* Peroxide Used

The Following Methods are Used:

Sobek\* 3.2.2 pg 45; Sobek 3.2.3 pg 47; Leco IR decton; Sobek 3.2.9 pg 65;  
 Sobek 3.2.18 pg 91; Sobek 3.2.19 pg 95; Sobek 3.4.3 pg 122; ASTM D2492  
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