ITEM 6-2

ACID-BASE ACCOUNTABILITY, REPORT OF RESULTS

2/10/88

ITEM VI-2

ACID BASE ACCOUNTABILITY
REPORT OF RESULTS
12-20-85

# REPORT OF RESULTS

# OF

# ACID-BASE ACCOUNTABILITY

# FOR

# STANDARD LABORATORIES, INC.

LAB NUMBERS

S-5604 THRU S-5607

STANDARD LABORATORIES, INC.
3322 PENNSYLVANIA AVENUE
CHARLESTON, WEST VIRGINIA 25302

JULY 16, 1981

STANDARD LABORATORIES, INC.
3322 Pennsylvania Ave., Charleston, W. Va. 25302 304-343-5173

DESCRIPTION OF TEST

THE FOLLOWING TEST PROGRAM WAS PERFORMED FOR STANDARD LABORATORIES, INC., UTAH IN ACCORDANCE WITH THE VERBAL INSTRUCTIONS FROM W. WALLEN TO STEPHEN STEPTO. THE FOUR SOIL SAMPLES DESCRIBED IN THIS REPORT (LAB NUMBERS S-5604 THRU S-5607) WERE DELIVERED TO STANDARD LABORATORIES, INC. CHARLESTON, ON JUNE 23, 1981.

TESTS PERFORMED ON EACH SAMPLE SEPARATELY WERE AS FOLLOWS:

1. A LOG WAS PREPARED DETAILING THE ROCK TYPE AND COLOR OF THE SAMPLE.

2. THE SAMPLE WAS ANALYZED FOR FIZZ, PERCENT SULFUR, PASTE PH AND NEUTRALIZATION POTENTIAL.

3. THE ANALYSES IN ITEM #2 WERE USED TO COMPUTE A COMPLETE ACID-BASE ACCOUNTABILITY.

4. THE SAMPLE WAS ANALYZED FOR % PYRITE.

5. AN ALKALINITY WAS DETERMINED ON THE WATER SHAKE EXTRACT OF THE SAMPLE.

6. % CLAY WAS DETERMINED ON LAB NUMBERS S-5605 AND S-5607.

RESPECTFULLY SUBMITTED,

STANDARD LABORATORIES, INC.

Marvin C Davis Jr.

MARVIN C. DAVIS, JR.
ASSISTANT MANAGER

STANDARD LABORATORIES, INC.
122 Pennsylvania Ave., Charleston, W. Va. 25302 304-343-5173

CORE LOG

FOR: STANDARD LABORATORIES, INC.
P.O. BOX 1140
HUNTINGTON, UTAH 84528

| LAB NO. | SAMPLE ID. | ROCK TYPE | COLOR |
|---|---|---|---|
| S-5604 | 19305 | VERY FINE GRAIN SANDSTONE WITH COAL STREAKS | 10YR 7/ |
| | | DARK GREY - CALCAREOUS | |
| S-5605 | 19306 | FINE GRAIN SANDSTONE WITH COAL STREAKS | 10YR 4/ |
| | | DARK GREY | |
| S-5606 | 19307 | MUDSTONE WITH FINE GRAIN SANDSTONE AND COAL | 10YR 6/ |
| | | STREAKS DARK GREY - CALCAREOUS | |
| S-5607 | 19308 | MUDSTONE WITH FINE GRAIN SANDSTONE AND COAL | 10YR 4/ |
| | | STREAKS DARK GREY | |

STANDARD LABORATORIES, INC.
22 Pennsylvania Ave., Charleston, W. Va. 25302 304-343-5173

ACID-BASE ACCOUNTABILITY

FOR: STANDARD LABORATORIES, INC.
P.O. BOX 1140
HUNTINGTON, UTAH 84528

$CaCo_3$ EQUIV. (TONS/1000 TONS OF MATERIAL)

| LAB NO. | SAMPLE ID. | FIZZ | % SUL. | MAX FROM % SUL. | AMOUNT PRESENT | MAX NEEDED PH 7 | EXCESS | PASTE PH |
|---|---|---|---|---|---|---|---|---|
| S-5604 | 19305 | 4 | 0.050 | 1.56 | 109.54 | --- | 107.98 | 7.60 |
| S-5605 | 19306 | 0 | 0.251 | 7.83 | 0.09 | 7.74 | --- | 3.95 |
| S-5606 | 19307 | 4 | 0.153 | 4.79 | 169.09 | --- | 164.30 | 7.25 |
| S-5607 | 19308 | 0 | 0.376 | 11.76 | -1.31 | 13.07 | --- | 3.90 |
| | | | | | | | | |
| | | | | | | | | |
| S-5604 | | | *0.03 | **0.94 | 109.54 | --- | **108.60 | |
| S-5605 | | | *0.06 | **1.87 | 0.09 | **1.78 | --- | |
| S-5606 | | | *0.09 | **2.81 | 169.09 | --- | **166.28 | |
| S-5607 | | | *0.07 | **2.19 | -1.31 | **4.50 | --- | |

* % PYRITE

** CALCULATED USING PYRITIC SULFUR

STANDARD LABORATORIES, INC.
3322 Pennsylvania Ave., Charleston, W. Va. 25302 304-343-5173

FOR: STANDARD LABORATORIES, INC.
P.O. BOX 1140
HUNTINGTON, UTAH 84528

SAMPLED BY: YOURSELVES/W. WALLEN DATE REC'D: 6/23/81

| LAB NO. | SAMPLE ID: | % PYRITE | % CLAY | WATER SHAKE EXTRACT ALKALINITY MG/L |
|---|---|---|---|---|
| S-5604 | 19305 | 0.03 | --- | 63.30 |
| S-5605 | 19306 | 0.06 | 9.5 | 4.00 |
| S-5606 | 19307 | 0.09 | --- | 87.40 |
| S-5607 | 19308 | 0.07 | 10.5 | 0.00 |

ITEM 6-2
ACIDITY-TOXICITY
COAL SAMPLE
TOP, MIDDLE, BOTTOM
COMPOSITE

ACZ inc

FACSIMILE REQUEST FORM 5-30-86

Steamboat Springs, Colorado 80477
(303) 879-6260 - Office
(303) 879-3631 - Facsimile Machine

TO: Andy King
Genwal

Fax (Telephone) No.: 1-801-532-7840

FROM: Ralph Poulsen
ACZ INC. Laboratory Division

Telephone No.:

DATE: 6/5/86

NUMBER OF PAGES (including this cover sheet): 2

CHARGE NO.: LAB

COMMENTS/NOTES:

IF YOU DO NOT RECEIVE LEGIBLE COPIES OF ALL PAGES, PLEASE CALL BACK AS SOON AS POSSIBLE.

ACI INC./LABORATORY DIVISION
COAL ANALYSIS REPORT

Client: Genwal Coal Company
816 Castle Heights Avenue
Price, Utah 84501

Report Date: June 4, 1986
Date Received: May 29, 1986

Attn: Mr. Andy King

| LAB NO. | SAMPLE I.D. | SAMPLE DATE | Saturation % | pH 1 (units) | Conductivity mmhos/cm @ 25 C | Calcium meq/l | Magnesium meq/l | Sodium meq/l | SAR | Boron 2 mg/kg | Selenium 2 mg/kg | Combustible Solids % | Neutralization Potential as % CaCo3 | Total Sulfur % | Acid Base Potential Tons CaCo3/1000 Tons |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 86-0870-Coal | Coal Sample | 05//29/86 | 61 | 7.4 | 0.83 | 4.20 | 2.97 | 3.46 | 1.83 | 1.30 | -0.01 | 91.0 | 0.7 | 0.58 | -11 |

1 Saturated Paste Extraction 2 Hot Water Extraction

Ralph V. Poulsen

Ralph V. Poulsen, Director

ITEM 6-2
COAL SAMPLE

ALT [illegible] LABORATORY REPORT
COAL ANALYSIS SUMMARY

Client: General Coal Company
[illegible] Avenue
Provo, Utah 84601

Report Date: June 4, 1984
Date Received: May [illegible], 1984

Attn: Mr. Gary King

| LAB NO. | SAMPLE I.D. | SAMPLE DATE | Saturation % | pH 1 Units | Conductivity mmho/cm @ 25 C | Calcium meq/l | Magnesium meq/l | Sodium meq/l | SAR | Boron Conc. 2 mg/kg | Selenium 2 mg/kg | Combustible Solids % | Neutralization Potential as % CaCO3 | Total Sulfur % | Acid Base Potential Tons CaCO3/1000 Tons |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3a-C570 Coal | Coal Sample | [illegible] | [illegible] | 7.4 | 0.83 | 4.20 | 2.97 | 3.46 | 1.83 | 1.30 | <.01 | 91.0 | 0.7 | 0.58 | -11 |
| | | | SATURATION % | PH | CONDUCTIVITY mmho/cm | CA meq/L | MAG. | NA | SAR | mg/kg | SELEN | COMB. SOL. % | NET. POTENTIAL % CACO3 | TOT SUL. % | ACID BASE TONS CACO3/1000 TONS |
| | | | 61% | 7.4 | .83 | 4.20 | 2.97 | 3.46 | 1.83 | 1.30 | <.01 | 91.0 | 0.7 | .58 | -11 |

1. Saturated Paste Extraction 2. Hot Water Extraction

Ralph W. Poulsen, Director

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