



0036
STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

January 19, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
(#P 402 458 592)

Mr. Robert H. Hagen, Director
Albuquerque Field Office
Office of Surface Mining
Reclamation & Enforcement
Suite 310, Silver Square
625 Silver Avenue, S.W.
Albuquerque, New Mexico 87102

Dear Bob:

Re: SOAP Operational Grant No. G-51-3-8491

Enclosed please find our budget revision application and supporting documentation for the above-referenced grant. It is necessary to increase the SOAP grant amount to complete baseline studies for the permitting of a disposal site for coal waste material that preliminary investigations have shown to be potentially acid- and toxic-forming. The application additionally requests an extension for the period of the grant to ensure that baseline data collection conforms to the Division's guidelines for water monitoring.

The current study is on schedule, with completion expected in April of this year. The final report submitted last year will be amended to incorporate the analysis, data, and conclusions from the last year of data collection. It is anticipated that the results from the study conducted (using the above requested funds) will be compiled in a new report with the previous report amended as necessary.

Page 2
Mr. Robert H. Hagen
January 19, 1988

We are requesting a \$65,000 budget increase to meet the costs associated with the study of this critical issue, and an extension of the grant period to June of 1990. Please contact me if there are additional actions necessary to obtain this application approval.

Best regards,



Dianne R. Nielson
Director

jr
Enclosures
cc: K. May
 C. Roberts
 ✓R. Summers
6003R/115:116

FEDERAL ASSISTANCE

2. APPLICANT'S APPLICATION IDENTIFIER

a. NUMBER

SOAP 1

STATE APPLICATION IDENTIFIER

a. NUMBER

UT-83-0720-010

b. DATE

Year month day
19 88 1 14

NOTE: TO BE ASSIGNED BY STATE

b. DATE ASSIGNED

Year month day
1983 7 20

Leave Blank

1. TYPE OF SUBMISSION
(Mark appropriate box)

- NOTICE OF INTENT (OPTIONAL)
- PREAPPLICATION
- APPLICATION

4. LEGAL APPLICANT/RECIPIENT

a. Applicant Name: Utah Division of Oil, Gas & Mining
 b. Organization Unit: Mined Land Reclamation
 c. Street/P.O. Box: Suite 350, 3 Triad Center
 d. City: Salt Lake
 e. County: Salt Lake
 f. State: Utah
 g. ZIP Code: 84180-1203
 h. Contact Person (Name & Telephone No.): Dr. Dianne Nielson (801) 538-5340

5. EMPLOYER IDENTIFICATION NUMBER (EIN)

6. PROGRAM (From CFDA)

a. NUMBER: 15 | 2 | 5 | 0

MULTIPLE

b. TITLE: Mined Land Reclamation & Enforcement

8. TYPE OF APPLICANT/RECIPIENT

- A-State
- B-Interstate
- C-Substate Organization
- D-County
- E-City
- F-School District
- G-Special Purpose District
- H-Community Action Agency
- I-Higher Educational Institution
- J-Indian Tribe
- K-Other (Specify):

Enter appropriate letter: **A**

7. TITLE OF APPLICANT'S PROJECT (Use section IV of this form to provide a summary description of the project)

Small Operators Assistance Program (SOAP)

9. AREA OF PROJECT IMPACT (Names of cities, counties, states, etc.)

Summit County

10. ESTIMATED NUMBER OF PERSONS BENEFITING
100

11. TYPE OF ASSISTANCE

- A-Basic Grant
- B-Supplemental Grant
- C-Loan
- D-Insurance
- E-Other

Enter appropriate letter(s): **E**

12. PROPOSED FUNDING

a. FEDERAL	\$ 65,000.00
b. APPLICANT	.00
c. STATE	.00
d. LOCAL	.00
e. OTHER	.00
f. Total	\$ 65,000.00

13. CONGRESSIONAL DISTRICTS OF:

a. APPLICANT	b. PROJECT
#2	#1
15. PROJECT START DATE Year month day 1987 7 1	16. PROJECT DURATION Months 36
18. DATE DUE TO FEDERAL AGENCY Year month day 19 87 7 1	

14. TYPE OF APPLICATION

- A-New
- B-Renewed
- C-Revision
- D-Continuation
- E-Augmentation

Enter appropriate letter: **D**

17. TYPE OF CHANGE (For 14c or 14d)

- A-Increase Dollars
- B-Decrease Dollars
- C-Increase Duration
- D-Decrease Duration
- E-Cancellation
- F-Other (Specify):

Enter appropriate letter(s): **- A C**

19. FEDERAL AGENCY TO RECEIVE REQUEST

Office of Surface Mining Reclamation & Enforcement
 a. ORGANIZATIONAL UNIT (IF APPROPRIATE): Albuquerque Field Office
 b. ADMINISTRATIVE CONTACT (IF KNOWN): Robert H. Hagen, Director
 c. ADDRESS: Suite 310, Silver Square, 625 Silver Ave., S.W., Albuquerque, New Mexico 87102

20. EXISTING FEDERAL GRANT IDENTIFICATION NUMBER

G51-3-8491

21. REMARKS ADDED

Yes No

22. THE APPLICANT CERTIFIES THAT

To the best of my knowledge and belief, data in this preapplication/application are true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is approved.

a. YES, THIS NOTICE OF INTENT/PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE Jan 20, 1987

b. NO, PROGRAM IS NOT COVERED BY E.O. 12372 OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

23. CERTIFYING REPRESENTATIVE

a. TYPED NAME AND TITLE: Dr. Dianne R. Nielson, Director

b. SIGNATURE: *Dianne R. Nielson*

24. APPLICATION RECEIVED

Year month day
19

25. FEDERAL APPLICATION IDENTIFICATION NUMBER

26. FEDERAL GRANT IDENTIFICATION

27. ACTION TAKEN

- a. AWARDED
- b. REJECTED
- c. RETURNED FOR AMENDMENT
- d. RETURNED FOR E.O. 12372 SUBMISSION BY APPLICANT TO STATE
- e. DEFERRED
- f. WITHDRAWN

28. FUNDING

a. FEDERAL	\$.00
b. APPLICANT		.00
c. STATE		.00
d. LOCAL		.00
e. OTHER		.00
f. TOTAL	\$.00

29. ACTION DATE

Year month day
19

31. CONTACT FOR ADDITIONAL INFORMATION (Name and telephone number)

30. STARTING DATE

Year month date
19

32. ENDING DATE

Year month date
19

33. REMARKS ADDED

Yes No

SECTION I - Item No. 7 - This application seeks an increase in funding and time extension to the Utah SOAP grant, which grant provides assistance to small coal operators as defined in Section 507(c) of Public Law 95-87, will include monitoring well siting, drilling, construction and completion, and to incorporate analysis and conclusions of the "two year base line data" requirement of our program

SECTION I - Item No. 11 - Funding increase and time extension



U.S. DEPARTMENT OF THE INTERIOR
Office of Surface Mining
Washington, DC 20240

Performance Report

Program Narrative Statement

1. Type of Program (Check Appropriate Box)			
<input type="checkbox"/> Abandoned Mine Land Program		<input checked="" type="checkbox"/> State and Federal Program	
2. Grant Recipient	Type of Report	Reporting Period	Control Number(s)
Utah Div. of Oil, Gas & Mining Suite 350, 3 Triad Center 355 West North Temple Salt Lake City, UT 84180-1203	Budget Revision Request	07/1/83 to 06/30/88	G-51-3-8491 SAI #UT830720-010
3. Project Title/Program			
Small Operators Assistance Program (SOAP) Operational Grant			
4. Performing Organization			
Utah Div. of Oil, Gas & Mining Suite 350, 3 Triad Center 355 West North Temple Salt Lake City, UT 84180-1203			
5. Program Narrative			
(See Attached)			

OSM-51 (12/80)

5. PROGRAM NARRATIVE

The results of a preliminary investigation of the waste rock quality at the Boyer mine indicates the spoil is a potentially acid- and toxic-forming material. Data and interpretations from the initial sampling are attached. The currently ongoing hydrologic studies at the site concentrated data acquisition and hydrologic balance analysis for the currently disturbed mine facilities area. A proposed disposal site for the material is located approximately one mile from the original study area. Ground-water data collected for the mine facilities area is helpful, but not complete or site specific to the proposed disposal site. Suspected faulting between the current monitoring well and the disposal site makes interpretation of ground water-direction and rate of movement difficult. Current active land and water uses adjacent to the site mandate that the water quality of the area be protected. Information on the baseline hydrology of the area is required to permit this disposal site.

The scope of work to be included in this amendment will include monitoring well siting, drilling, construction and completion. Well test techniques will be used to determine the extent, direction and rate of movement for the ground-water regime directly at the disposal site. Costs for sampling the well and laboratory analysis for a period of two years have also been included. This conforms with the current study precedent and Division of Oil, Gas and Mining guidelines for baseline data acquisition for the issuance of permits to mine. Analysis of all data and conclusions will be compiled in two reports. The first will be finalized following the completion of the initial well drilling and aquifer analysis, and the second at the completion of the study in 1990.

Additional Data:

Amount of Request: \$65,000
Time Extension: July 1, 1988 through June 30, 1990

jr
6003R/113

REPORT ON SUMMIT COAL COMPANY'S BOYER MINE
COAL WASTE ANALYSIS DATED DECEMBER 15, 1987

Abstract

The above-mentioned analysis (Commercial Testing and Engineering Company) of the Boyer Mine gob material has been reviewed. The December 15, 1987 analysis supports the previous waste analysis (Appendix 6D-MRP) indicating an acid- or toxic-forming material. The material is considered an acid- or toxic-forming material due to the high sulfur content and boron availability.

Discussion

The submitted lab report indicates that the titration was less than 1 ton CaCO_3 /1000 tons, indicating a potentially acidic nature. The analysis reported the percent sulfur at 1.44 and 0.92. This calculates to an Acid Production Potential of -45 and -28.95 tons CaCO_3 /1000 tons, respectively. One can infer the neutralization potential by the amount of Fizzability reported. The lab report indicated "no" for each sample. Thus the calculated Acid-Base Potential is -45 and -28.95 tons CaCO_3 /1000 tons. Previously reported Acid-Base Potential was calculated as -64.5 and -22.9 tons CaCO_3 /1000 tons material (Appendix 6D of the MRP). The Division considers any material less than -5 tons CaCO_3 /1000 tons as an acid- or toxic-forming material.

The acid production potential (APP) in these calculations is based on total sulfur. To determine a more accurate APP only non-sulfate sulfur should be used. The non-sulfate sulfur would include organic (residual) sulfur and pyritic sulfur. In the future, specific tests for organic and pyritic sulfur should be determined. It should also be noted that the type of pyritic sulfur affects the actual acid production. Usually small, non-crystalline, high surface area pyrite will oxidize and generate more acid than large, massive crystalline pyrite. X-ray diffraction may be necessary to evaluate the type of pyritic sulfur.

The submittal also indicates another toxicity problem. Boron is reported at 16 and 27 ppm for Summit Coal Gob #1 and #2, respectively. According to the Division Guideline for Management of Topsoil and Overburden for Coal Mining, any material greater than 5 ppm is considered toxic. Boron is specifically toxic to vegetation. This parameter should be closely evaluated with future data submittals as required by the approved MRP.

jr
6003R/114



BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN, COLORADO 80401
PHONE: (303) 277-1687

1455 DEMING WAY, SUITE 15
SPARKS, NEVADA 89431
PHONE: (702) 358-1158

Commercial Testing & Engineering Co.
224 So. Carbon Ave.
Price, UT 84501

ATTN: Darlene Pennington

Client NO.	Log No. 7439	Client PO No. 72-3912
Sample Type: soils		57-24943 Gob #1
		57-24944 Gob #2
Date Collected:	Date Received: 11/6/87	Date Reported: 12/15/87

<u>Sample Identification</u>	<u>Saturation Percentage %</u>	<u>pH units</u>	<u>Conductance μmho/cm</u>	<u>Se mg/kg</u>	<u>B mg/kg</u>
Summit Coal Gob #1	53.45	8.20	3680	0.1	16
Summit Coal Gob #2	57.98	8.32	3146	<0.1	27

PARTICLE SIZE ANALYSIS

<u>Sample Identification</u>	<u>Clay %</u>	<u>Silt %</u>	<u>Sand %</u>	<u>Textural Class</u>	<u>S %</u>	<u>Organic Carbon as C %</u>	<u>S.A.R. %</u>
Summit Coal Gob #1	13.69	53.24	33.07	Silt Loam	1.44	15.4	0.42
Summit Coal Gob #2	12.61	37.60	49.79	Loam	0.92	13.9	0.49

<u>Sample Identification</u>	<u>Acid-Base Potential tons CaCO₃ 1000 tons</u>	<u>Color</u>	<u>Fizzability</u>
Summit Coal Gob #1	<1	<1	no
Summit Coal Gob #2	<1	<1	no

Approved by *[Signature]*



BARRINGER LABORATORIES INC.

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Commercial Testing & Engineering Co.
224 So. Carbon Ave.
Price, UT 84501

ATTN: Darlene Pennington

LGN: 7439

QUALITY CONTROL DATA SHEET

Time Received: 9:00 Date: 11/6/87 By: Gina Reichert Via: UPS

Sample Container Type: plastic bags
Sample Type: soil

Preservative When Received: 1. HNO₃ 2. None

Additional Lab Preparation: 100 mesh

<u>Parameter</u>	<u>Reference</u>	<u>Method</u>	<u>LLD</u>	<u>Preservative</u>	<u>Analyst</u>	<u>Date(s) of Analysis</u>
Conductivity	4	120.0	0.1 μ mhos/cm	2	P. Huebner	11/17/87
Selenium	2	206.2	1 μ g/l	1	T. Carr	11/20/87
Boron	3	200.7	10 μ g/l	1	P. Stockdale	12/7/87

DUPLICATES

<u>Sample Identification</u>	<u>Parameter</u>	<u>Result</u>	<u>Result</u>	<u>Relative Deviation From Mean</u>
Summit Coal Gob #2	Conductance	3146	3127	0.6%

QUALITY CONTROL STANDARDS

<u>Parameter</u>	<u>Result</u>	<u>Certified Result</u>	<u>Acceptable Target Range</u>	<u>Relative Deviation From Known</u>	<u>Spike Recovery</u>
Selenium	0.021	0.025	0.015 - 0.031	17.0%	—
Boron	0.88	0.99	0.79 - 1.19	11.8%	100

Approved by *G. Zil*

U.S. DEPARTMENT OF THE INTERIOR
Office of Surface Mining
BUDGET INFORMATION REPORT

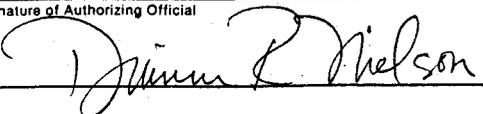
OMB Approval No.
1029-0064

IMPORTANT: Please read instructions on the reverse of this page before completing form.

A Program <u>Permanent Regulatory Program</u>	E. Budget Period (Month, Day, Year)	F. Mark X in Appropriate Box
B Grantee <u>Utah Division of Oil, Gas and Mining</u>	Beginning Date <u>7-1-83</u>	<input type="checkbox"/> New Budget
C. Grant Program <u>Small Operators Assistance Program (S.O.A.P.)</u>	Ending Date <u>6-30-90</u>	<input checked="" type="checkbox"/> Revised Budget (Enter Grant Number)
D Rate of Federal Sharing (%) <u>100%</u>		Grant Number <u>65138491</u>

PROGRAMS/FUNCTIONS/ACTIVITIES ▶	S.O.A.P. (a)	(b)	(c)	(d)	(e)	(f)	TOTAL (g)
Section A by Object Class							
1. Personnel	\$	\$	\$	\$	\$	\$	\$
2. Fringe Benefit							
3. Travel							
4. Equipment							
5. Supplies							
6. Contractual	135,000						135,000
7. Construction							
8. Other							
9. Total Direct Charges	135,000						135,000
10. Indirect Charges							
11. Total	135,000						135,000
Section B by Quarter							
12. First Quarter							
13. Second Quarter							
14. Third Quarter							
15. Fourth Quarter							
16. Total							135,000
Section C by Source							
17. Non-Federal Share							
18. Federal Share							135,000
Section D for Income							-0-
19. Program Income							

Section E Indirect Cost	20. Detail on Indirect Cost Type of Rate (mark X in one box) <input type="checkbox"/> Predetermined <input type="checkbox"/> Provisional <input type="checkbox"/> Final <input type="checkbox"/> Fixed Total Amount _____ Base _____ Rate _____% <u>N/A</u>
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G. Signature of Authorizing Official 	H. Name and Title (type or print) Dianne R. Nielson, Director	I. Telephone Number (Area Code, Number and Extension) (801) 538-5340	Date Report Submitted
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U.S. DEPARTMENT OF THE INTERIOR
Office of Surface Mining

QUANTITATIVE PROGRAM MANAGEMENT INFORMATION
TO SUPPORT

THE SMALL OPERATORS ADMINISTRATION AND OPERATIONAL PROGRAM (SOAP) GRANT FOR STATE REGULATORY ASSISTANCE

1. Name of Grantee Utah Division of Oil, Gas & Mining 2. Grant Number G-51-3-8491 (SOAP)

3. Period Covered by This Report
From 7-1-83 to 6-30-88

4. DESCRIPTION OF ACTIVITY (Enter numbers for Budgeted Activity in Column (A) & Actual Activity in Columns (B) & (C))	5. PROGRAM NARRATIVE STATEMENT (Budgeted Activity) (A)	6. PERFORMANCE REPORT (ACTUAL ACTIVITY)		7. PERCENTAGE % (A) ÷ (C) = (D) (D)
		semi-annual (B)	yr. to date (C)	
A. Administrative Support for SOAP Action:				
1. Small Operators identified and contacted	1	0	1	100
2. Applications for assistance received	Continued			100
3. Applications for assistance approved	Continued			100
4. Task Order contracts awarded	0	0	0	-
5. Laboratories requesting qualifications	0	0	0	-
6. Small Operators receiving permits	1	0	1	
B. SOAP operational activities:				
1. Determination of probable hydrologic consequences:	1	0	1	100
(a) Determinations completed				
2. Statements of test boring:	1	0	1	100
(a) Statements completed				
3. Sites with laboratory costs in the following dollar categories:				
(a) Less than \$20,000				
(b) \$20,000 to \$30,000				
(c) Greater than \$30,000	1	0	1	100
4. Number of Work Laboratories receiving work orders	0	0	0	0