

PERMIT TRACKING FORM

- Permit Amendment(INS) Exploration Permit(INS) N.O.V. (INS) D.O. Permit Transfer Incidental Boundary Change
 Permit Midterm (MT) Permit Renewal (PR) New Permit Significant Revision (SR) Bond Release (BR)

DATE RECEIVED 3-27-97	By: <i>hand delivered</i> WJM (Initial)	PERMIT NUMBER	ACT 1015/019
Title of Proposal: Waste Rock Site Gate Relocation		PERMIT CHANGE #	97B
Description: Relocate WRS gate to prevent vandalism		PERMITTEE	Pacific Corp
# Copies Required 7	# Copies Received 8 text 7 maps	MINE NAME	Cottonwood
<input type="checkbox"/> PERMIT CHANGE APPLICATION SENT TO SLC		DATE:	LETTER TO PERMITTEE:

<input type="checkbox"/> 15 DAY INITIAL RESPONSE TO PERMIT CHANGE APPLICATION OR INITIAL COMPLETENESS REVIEW	DATE DUE 4/15/97	DATE DONE 4/28/97	LETTER TO PERMITTEE 4/28/97
<input type="checkbox"/> Notice of Affidavit of Publication. (If change is a Significant Revision, New Permit or Permit Transfer) N/A	DATE DUE:	DATE DONE	PUBLIC COMMENT RECEIVED:

PRICE REVIEW TRACKING	REVIEW		SLC REVIEW TRACKING	REVIEW	
	DUE	DONE		DUE	DONE
<input checked="" type="checkbox"/> Lead Generalist <i>WJM</i>	4/15/97	4/28/97	<input type="checkbox"/> Lead		
<input type="checkbox"/> Administrative			<input type="checkbox"/> Administrative		
<input type="checkbox"/> Land Use/AQ			<input type="checkbox"/> Land Use/AQ		
<input type="checkbox"/> Biology			<input type="checkbox"/> Biology		
<input type="checkbox"/> Engineering			<input type="checkbox"/> Engineering		
<input type="checkbox"/> Geology			<input type="checkbox"/> Geology		
<input type="checkbox"/> Soils			<input type="checkbox"/> Soils		
<input type="checkbox"/> Hydrology			<input type="checkbox"/> Hydrology		

TA Review Due	Date:	Permittee Response Due <input type="checkbox"/> Stipulation <input type="checkbox"/> Condition <input type="checkbox"/> No Requirements	Date:	DIVISION DECISION LETTER <input type="checkbox"/> APPROVE <input type="checkbox"/> DENY
TA Review Done	Date:	Response Received	Date:	Date:

COORDINATED REVIEWS	PHONE CONTACT	SENT	DUE	RECEIVED	ADDITIONAL TRACKING	Date:
<input type="checkbox"/> OSMRE					PUBLIC HEARING	
<input type="checkbox"/> US Forest Service					LETTER FROM COMPLIANCE SUPER.	
<input checked="" type="checkbox"/> BLM					AVS COMPLETED	
<input type="checkbox"/> US FWS					APPROVAL EFFECTIVE DATE	
<input type="checkbox"/> US NPS					APPROVED COPY TO FILE	
<input type="checkbox"/> UT SHPO					APPROVED COPY TO PERMITTEE	
<input type="checkbox"/> UT DEQ					APPROVED COPY TO PFO/SLC	
<input type="checkbox"/> UT Water Rights					APPROVED COPY TO AGENCIES	
<input checked="" type="checkbox"/> MSHA	<i>letter 4/28/97</i>	<i>letter</i>	<i>7</i>			
<input type="checkbox"/> UT Wildlife Resources					CHIA MODIFIED	
<input type="checkbox"/> UT SITLA					UPDATE MASTER TA	DONE/NEEDED

PRICE FIELD OFFICE COMMENTS:
letter sent to MSHA & BLM requesting comments to Heltrick by 4/4/97.
WJM

SLC OFFICE COMMENTS:
approved 4/19/97
follow up action required to sub.
7 cc's of maps w/in 30 days of completion



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

May 13, 1997

Chuck Semborski, Environmental Supervisor
PacifiCorp
P.O. Box 310
Huntington, Utah 84528

Re: Waste Rock Site Gate Relocation, PacifiCorp, Cottonwood Mine, ACT/015/019-97B,
Folder #2, Emery County, Utah

Dear Mr. Semborski:

Additional information received by the division on May 12, regarding the referenced amendment is hereby approved effective May 13, 1997. A stamped incorporated copy is enclosed for insertion into your Mining and Reclamation Plan.

If you have any questions please call me at 538-5290.

Sincerely,

Joseph C. Heffrich
Permit Supervisor

tt
cc: Ranvir Singh, OSM
Richard Manus, BLM, Price
Janette Kaiser, Forest Service
Mark Page, Water Rights
Dave Ariotti, Health
Bill Bates, DWR
Bill Malencik, PFO
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RECEIVED
MAR 28 1997
DIV. OF OIL, GAS & MINING

**COVER COMPARISONS:
DEER CREEK WASTE ROCK
ACCESS ROAD VS. REFERENCE AREA**

APPENDICE XIII



INCORPORATED
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APR 09 1997 97A
UTAH DIVISION OIL, GAS AND MINING

**COVER COMPARISONS:
DEER CREEK WASTE ROCK
ACCESS ROAD VS. REFERENCE AREA**



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APR 09 10 9719
UTAH DIVISION OIL, GAS AND MINING

Prepared by

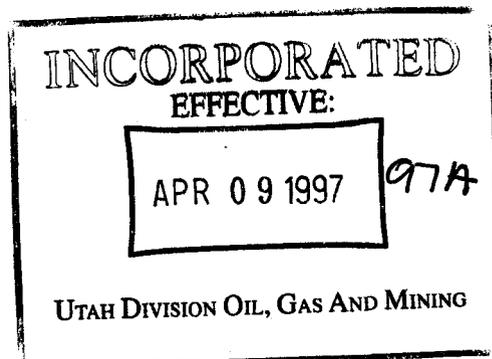
MT. NEBO SCIENTIFIC, INC.
330 East 400 South, Suite 6
Post Office Box 337
Springville, Utah 84663
(801) 489-6937

by
Patrick Collins Ph.D.

for

PACIFICORP
Post Office Box 310
Huntington, Utah 84528

March 22, 1997



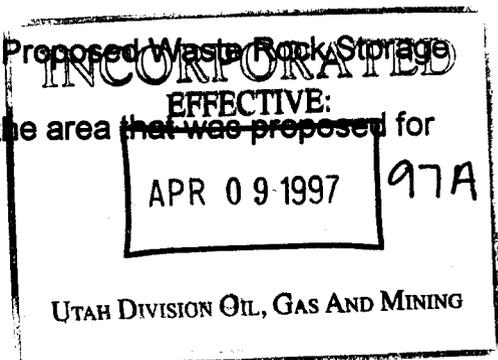
**COVER COMPARISONS:
DEER CREEK WASTE ROCK
ACCESS ROAD VS. REFERENCE AREA**

INTRODUCTION

A request was made by representatives from Pacificorp to compare the vegetation of a native plant community with the reseeded "fill" slopes created by construction of the access road at the Deer Creek Waste Rock Site. The purpose of the comparison may be to evaluate whether or not the revegetated fill slopes of the road is equal-to-or-greater-than a given standard. If the vegetation of the two areas were comparable, consideration could be made for the removal of the existing erosion control structures that are maintained in the area.

METHODS

Two data sets from earlier reports both done by *MT. NEBO SCIENTIFIC, INC.* were used to make comparisons. First, quantitative sampling results were taken from the "Pacificorp Vegetation Monitoring" (1995) report. The second data set used was from the original report of the vegetation communities before the waste rock site was constructed. This report was called "Vegetation of the Proposed Waste Rock Storage Areas" (1987). When the vegetation was sampled on the area that was proposed for



disturbance for construction of the waste rock site in 1987, a reference area was also sampled to be used as a standard for future revegetation success. Sampling methods between data sets were similar, so comparisons could easily be made.

RESULTS

Data summaries for the vegetation of the access road of the Deer Creek Waste Rock Site and a Gardner Saltbush/Mat Saltbush Reference Area are shown on Tables A through E. Table A is a spreadsheet that shows all the cover data from the roadside, including both "cut" and "fill" slopes. Table B is a summary showing only the fill slopes. From Table B, one can see that the total living cover of the fill slopes is 32.44%. The total ground cover, or that cover that contributes to erosion control, was 74.17%. Total ground cover included total living cover, litter and rock (excluded bareground).

Tables D and E are data summaries taken from the aforementioned 1987 report for the Gardner Saltbush/Mat Saltbush Reference Area. From Table D, the total living cover of the reference area was 38.93%, whereas the total ground cover was 54.83%.

The total ground cover of the revegetated cut slopes of the access road at the waste rock site was obviously much greater than the cover of the reference area. It is therefore probable that erosion of the reseeded fill slopes does not exceed the erosion from the adjacent undisturbed slopes of the native plant communities.

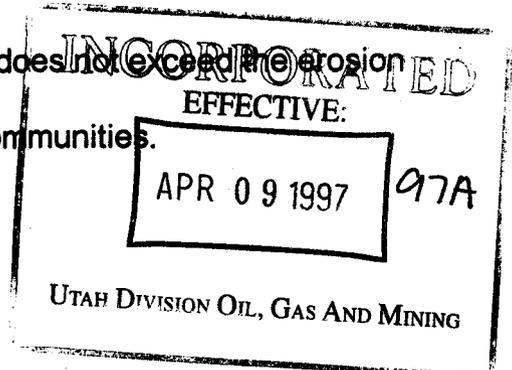


TABLE A - DEER CREEK-WASTE ROCK SITE

Access Road Slope

1989 Interim Reveg Area

Acreage: part of 5 acres

Slope: 20-25 deg

Exposure: variable

Sample Date: 28 Aug 1995

	Fill	Cut	Fill	Cut	Fill	Cut	Fill	Cut
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00
SHRUBS								
Chrysothamnus nauseosus	20.00	5.00	5.00	0.00	0.00	0.00	0.00	0.00
Ceratoides lanata	0.00	0.00	0.00	5.00	10.00	0.00	0.00	0.00
Atriplex canescens	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00
Atriplex gardneri	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
Eriogonum corymbosum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00
FORBS								
Medicago sativa	5.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
Kochia scoparia	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00
Iva axillaris	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
Salsola pestifer	0.00	0.00	0.00	30.00	0.00	0.00	0.00	5.00
Halogeton glomeratus	0.00	0.00	0.00	0.00	0.00	20.00	0.00	5.00
Penstemon palmeri	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Machaeranthera canescens	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GRASSES								
Stipa hymenoides	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Elymus cinereus	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sitanion hystrix	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Elymus lanceolatus	10.00	30.00	25.00	0.00	20.00	5.00	30.00	0.00
COVER								
Total Living Cover	40.00	60.00	40.00	35.00	40.00	25.00	40.00	25.00
Litter	5.00	5.00	5.00	5.00	5.00	3.00	5.00	2.00
Bareground	25.00	30.00	20.00	55.00	40.00	70.00	10.00	70.00
Rock	30.00	5.00	35.00	5.00	15.00	2.00	45.00	3.00
% COMPOSITION								
Shrubs	50.00	8.33	12.50	14.29	50.00	0.00	25.00	60.00
Forbs	12.50	41.67	25.00	85.71	0.00	80.00	0.00	40.00
Grasses	37.50	50.00	62.50	0.00	50.00	20.00	75.00	0.00

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APR 09 1997 97A
UTAH DIVISION OIL, GAS AND MINING

DEER CREEK-WASTE ROCK

Access Road Slope
 1989 Interim Reveg Area
 Acreage: part of 5 acres
 Slope: 20-25 deg
 Exposure: variable
 Sample Date: 28 Aug 1995

Fill	Cut		Fill		Mean	SDev
9.00	10.00	11.00	12.00			

SHRUBS

15.00	0.00	5.00	0.00	4.17	6.40	Chrysothamnus nauseosus
0.00	0.00	0.00	0.00	1.25	2.98	Ceratoides lanata
0.00	10.00	0.00	0.00	1.67	3.73	Atriplex canescens
0.00	0.00	0.00	0.00	0.83	2.76	Atriplex gardneri
0.00	0.00	0.00	0.00	1.25	4.15	Eriogonum corymbosum

FORBS

0.00	0.00	0.00	0.00	0.83	1.86	Medicago sativa
0.00	0.00	0.00	0.00	0.83	2.76	Kochia scoparia
0.00	0.00	0.00	0.00	1.67	5.53	Iva axillaris
0.00	0.00	25.00	20.00	6.67	10.87	Salsola pestifer
0.00	0.00	0.00	0.00	2.08	5.57	Halogeton glomeratus
10.00	0.00	0.00	0.00	0.83	2.76	Penstemon palmeri
0.00	10.00	0.00	0.00	0.83	2.76	Machaeranthera canescens

GRASSES

10.00	0.00	0.00	0.00	0.83	2.76	Stipa hymenoides
0.00	0.00	0.00	0.00	0.42	1.38	Elymus cinereus
0.00	0.00	5.00	0.00	0.42	1.38	Sitanion hystrix
0.00	0.00	0.00	0.00	10.00	12.08	Elymus lanceolatus

COVER

35.00	20.00	35.00	20.00	34.58	10.70	Total Living Cover
5.00	10.00	5.00	5.00	5.00	1.78	Litter
40.00	65.00	20.00	70.00	42.92	21.36	Bareground
20.00	5.00	40.00	5.00	17.50	15.31	Rock

% COMPOSITION

42.86	50.00	14.29	0.00	27.27	20.96	Shrubs
28.57	50.00	71.43	100.00	44.57	32.20	Forbs
28.57	0.00	14.29	0.00	28.15	25.57	Grasses

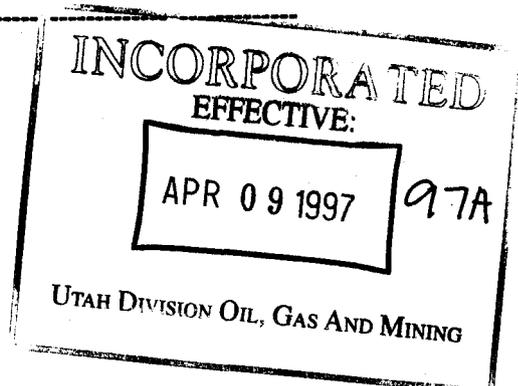


TABLE B - DEER CREEK-WASTE ROCK SITE

Access Road Slope
 1989 Interim Reveg Area
 Acreage: part of 5 acres
 Slope: 20-25 deg
 Exposure: variable
 Sample Date: 28 Aug 1995

	Fill	Mean	SDev						
	1.00	3.00	5.00	7.00	9.00	11.00			
SHRUBS									
Chrysothamnus nauseosus	20.00	5.00	0.00	0.00	15.00	5.00	7.50	7.50	
Ceratoides lanata	0.00	0.00	10.00	0.00	0.00	0.00	1.67	3.73	
Atriplex canescens	0.00	0.00	0.00	10.00	0.00	0.00	1.67	3.73	
Atriplex gardneri	0.00	0.00	10.00	0.00	0.00	0.00	1.67	3.73	
Eriogonum corymbosum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FORBS									
Medicago sativa	5.00	0.00	0.00	0.00	0.00	0.00	0.83	1.86	
Kochia scoparia	0.00	10.00	0.00	0.00	0.00	0.00	1.67	3.73	
Iva axillaris	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Salsola pestifer	0.00	0.00	0.00	0.00	0.00	25.00	4.17	9.32	
Halogeton glomeratus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Penstemon palmeri	0.00	0.00	0.00	0.00	10.00	0.00	1.67	3.73	
Machaeranthera canescens	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GRASSES									
Stipa hymenoides	0.00	0.00	0.00	0.00	10.00	0.00	1.67	3.73	
Elymus cinereus	5.00	0.00	0.00	0.00	0.00	0.00	0.83	1.86	
Sitanion hystrix	0.00	0.00	0.00	0.00	0.00	5.00	0.83	1.86	
Elymus lanceolatus	10.00	25.00	20.00	30.00	0.00	0.00	14.17	11.70	

COVER									
Total Living Cover	40.00	40.00	40.00	40.00	35.00	35.00	38.33	2.36	
Litter	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00	
Bareground	25.00	20.00	40.00	10.00	40.00	20.00	25.83	10.96	
Rock	30.00	35.00	15.00	45.00	20.00	40.00	30.83	10.57	

% COMPOSITION									
Shrubs	50.00	12.50	50.00	25.00	42.86	14.29	32.44	15.85	
Forbs	12.50	25.00	0.00	0.00	28.57	71.43	22.92	24.32	
Grasses	37.50	62.50	50.00	75.00	28.57	14.29	44.64	20.41	

COVER (TLC+L+R)*	75.00	80.00	60.00	90.00	60.00	88.00	74.17	10.98	
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*
 TLC = Total Living Cover
 L = Litter
 R = Rock

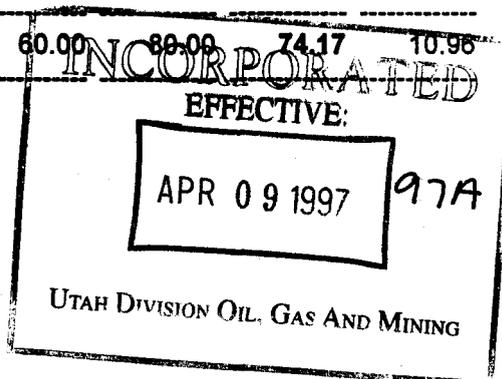


TABLE C - DEER CREEK-WASTE ROCK SITE

Access Road Slope
 1989 Interim Reveg Area
 Acreage: part of 5 acres
 Slope: 20-25 deg
 Exposure: variable
 Sample Date: 28 Aug 1995

	Cut 2.00	Cut 4.00	Cut 6.00	Cut 8.00	Cut 10.00	Cut 12.00	Mean	SDev
SHRUBS								
Chrysothamnus nauseosus	5.00	0.00	0.00	0.00	0.00	0.00	0.83	1.86
Ceratoides lanata	0.00	5.00	0.00	0.00	0.00	0.00	0.83	1.86
Atriplex canescens	0.00	0.00	0.00	0.00	10.00	0.00	1.67	3.73
Atriplex gardneri	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Eriogonum corymbosum	0.00	0.00	0.00	15.00	0.00	0.00	2.50	5.59
FORBS								
Medicago sativa	5.00	0.00	0.00	0.00	0.00	0.00	0.83	1.86
Kochia scoparia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iva axillaris	20.00	0.00	0.00	0.00	0.00	0.00	3.33	7.45
Salsola pestifer	0.00	30.00	0.00	5.00	0.00	20.00	9.17	11.70
Halogeton glomeratus	0.00	0.00	20.00	5.00	0.00	0.00	4.17	7.31
Penstemon palmeri	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Machaeranthera canescens	0.00	0.00	0.00	0.00	10.00	0.00	1.67	3.73
GRASSES								
Stipa hymenoides	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Elymus cinereus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sitanion hystrix	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Elymus lanceolatus	30.00	0.00	5.00	0.00	0.00	0.00	5.83	10.96
COVER								
Total Living Cover	60.00	35.00	25.00	25.00	20.00	20.00	30.83	13.97
Litter	5.00	5.00	3.00	2.00	10.00	5.00	5.00	2.52
Bareground	30.00	55.00	70.00	70.00	65.00	70.00	60.00	14.43
Rock	5.00	5.00	2.00	3.00	5.00	5.00	4.17	1.21
% COMPOSITION								
Shrubs	8.33	14.29	0.00	60.00	50.00	0.00	22.10	23.95
Forbs	41.67	85.71	80.00	40.00	50.00	100.00	66.23	23.33
Grasses	50.00	0.00	20.00	0.00	0.00	0.00	11.67	18.63
COVER (TLC+L+R)*	70.00	45.00	30.00	30.00	35.00	30.00	40.00	14.43

*
 TLC = Total Living Cover
 L = Litter
 R = Rock

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TABLE D - The reference area of the Gardner Saltbush/Mat Saltbush Community. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover*	38.93	14.79	30
Litter	8.40	5.01	30
Rock	7.50	6.63	30
Bareground	45.33	17.21	30
COMPOSITION			
Shrubs	84.09	24.91	30
Forbs	1.13	3.05	30
Grasses	14.78	24.70	30

* Sample size insures 80% accuracy within 10% of the true mean.

COVER (TLC+L+R) = 54.83

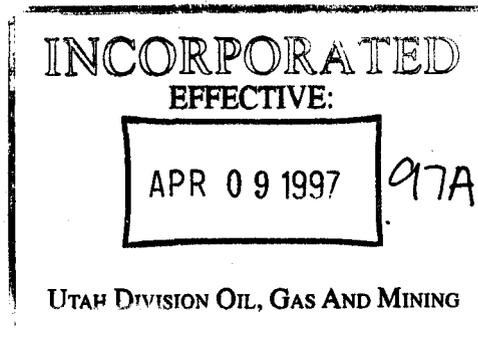
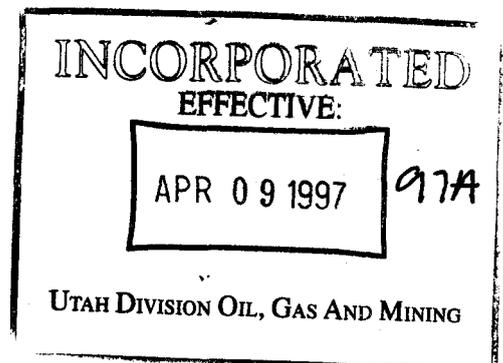


TABLE E - The reference area of the Gardner Saltbush/Mat Saltbush Community. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
SHRUBS				
Artemisia nova	6.50	11.23	30	30.00
Atriplex gardneri	11.37	17.17	30	46.67
Atriplex confertifolia	4.23	7.85	30	36.67
Atriplex corrugata	.57	3.10	30	3.33
Chrysothamnus nauseosus	.17	.91	30	3.33
Chrysothamnus viscidiflorus	6.10	6.82	30	53.33
Ephedra viridis	.50	2.74	30	6.67
Eriogonum corymbosum	2.33	5.86	30	26.67
FORBS				
Cryptantha flava	.07	.25	30	10.00
Cymopterus purpureus	.17	.91	30	6.67
Phacelia crenulata	.07	.25	30	6.67
GRASSES				
Elymus salinus	3.50	8.11	30	16.67
Oryzopsis hymenoides	2.70	5.53	30	30.00





MT NEBO SCIENTIFIC, INC.
research & consulting

May 23, 1996

Val Payne
ENERGY WEST MINING COMPANY
P.O. Box 310
Huntington, Utah 84528

RE: Deer Creek Waste Rock Site - *ACT/015/018-97A*

Dear Val:

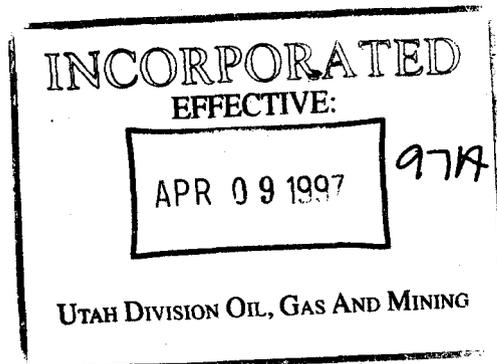
Enclosed please find a spreadsheet showing the cover data of the Deer Creek Waste Rock Access Road. I have shown which of the quadrats were "fill" and which were "cut" slopes. At the bottom of the page you may note that the mean total cover (vegetation, litter & rock) was 74.17% for the fill slopes and 40.00% for the cut slopes.

I hope this information is what you needed. Please do not hesitate to call if you have questions or need further assistance.

Sincerely,

Patrick D. Collins, Ph.D.

Enclosure



MT. NEBO SCIENTIFIC/ ENERGY WEST
DEER CREEK-WASTE ROCK SITE

RAW DATA SUMMARY 1995

Access Road Slope
1989 Interim Reveg Area
Acreage: part of 5 acres
Slope: 20-25 deg

Exposure: variable
Sample Date: 28 Aug 1995

	Fill	Cut										
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
SHRUBS												
Chrysothamnus nauseosus	20.00	5.00	5.00	0.00	0.00	0.00	0.00	0.00	15.00	0.00	5.00	0.00
Ceratoides lanata	0.00	0.00	0.00	5.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Atriplex canescens	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	10.00	0.00	0.00
Atriplex gardneri	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Eriogonum corymbosum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00
FORBS												
Medicago sativa	5.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kochia scoparia	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iva axillaris	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Salsola pestifer	0.00	0.00	0.00	30.00	0.00	0.00	0.00	5.00	0.00	0.00	25.00	20.00
Halimolobos glomeratus	0.00	0.00	0.00	0.00	0.00	20.00	0.00	5.00	0.00	0.00	0.00	0.00
Penstemon palmeri	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
Machaeranthera canescens	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00
GRASSES												
Stipa hymenoides	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
Elymus cinereus	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sitanion hystrix	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00
Elymus lanceolatus	10.00	30.00	25.00	0.00	20.00	5.00	30.00	0.00	0.00	0.00	0.00	0.00

COVER												
Total Living Cover	40.00	60.00	40.00	35.00	40.00	25.00	40.00	25.00	35.00	20.00	35.00	20.00
Litter	5.00	5.00	5.00	5.00	5.00	3.00	5.00	2.00	5.00	10.00	5.00	5.00
Bareground	25.00	30.00	20.00	55.00	40.00	70.00	10.00	70.00	40.00	65.00	20.00	70.00
Rock	30.00	5.00	35.00	5.00	15.00	2.00	45.00	3.00	20.00	5.00	40.00	5.00

% COMPOSITION												
Shrubs	50.00	8.33	12.50	14.29	50.00	0.00	25.00	60.00	42.86	50.00	14.29	0.00
Forbs	12.50	41.67	25.00	85.71	0.00	80.00	0.00	40.00	28.57	50.00	71.43	100.00
Grasses	37.50	50.00	62.50	0.00	50.00	20.00	75.00	0.00	28.57	0.00	14.29	0.00

Total Cover	75.00	70.00	80.00	45.00	60.00	30.00	90.00	30.00	60.00	35.00	80.00	30.00
Bareground	25.00	30.00	20.00	55.00	40.00	70.00	10.00	70.00	40.00	65.00	20.00	70.00

Mean Total Cover: Fill Slopes 74.17 Std.Dev. 10.96
Mean Total Cover: Cut Slopes 40.00 Std.Dev. 14.43

INCORPORATED
EFFECTIVE:

APR 09 1997

97A
UTAH DIVISION OIL, GAS AND MINING

DEER CREEK-WASTE R

Access Road Slope

1999 Interim Reveg Area

Acreage: part of 5 acres

Slope: 20-25 deg

Exposure: variable

Sample Date: 28 Aug 1995

Mean	SDev	Freq
SHRUBS		
4.17	6.40	Chrysothamnus nauseosu
1.25	2.98	Ceratoides lanata
1.67	3.73	Atriplex canescens
0.83	2.76	Atriplex gardneri
1.25	4.15	Eriogonum corymbosum
FORBS		
0.83	1.86	Medicago sativa
0.83	2.76	Kochia scoparia
1.67	5.53	Iva axillaris
6.67	10.87	Salsola pestifer
2.08	5.57	Halogeton glomeratus
0.83	2.76	Penstemon palmeri
0.83	2.76	Machaeranthera canescen
GRASSES		
0.83	2.76	Stipa hymenoides
0.42	1.38	Elymus cinereus
0.42	1.38	Sitanion hystrix
10.00	12.08	Elymus lanceolatus
COVER		
34.58	10.70	Total Living Cover
5.00	1.78	Litter
42.92	21.36	Bareground
17.50	15.31	Rock
% COMPOSITION		
27.27	20.96	Shrubs
44.57	32.20	Forbs
28.15	25.57	Grasses
57.08	21.36	
42.92	21.36	

INCORPORATED
EFFECTIVE:

APR 09 1997

97A

UTAH DIVISION OIL, GAS AND MINING



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340
(801) 359-3940 (Fax)

March 31, 1997

TO: File

THRU: Joe Helfrich, Permit Supervisor *JH*

FROM: Wm. J. Malencik, Reclamation Specialist *WJM*

RE: Waste Rock Site Gate Relocation, PacifiCorp, Cottonwood Mine,
ACT/015/019-97B, Folder #2, Emery County, Utah

SUMMARY:

The Division of Oil, Gas, & Mining on March 27, 1997, received at the Price Field Office a permit amendment from PacifiCorp. The amendment concerns moving the Cottonwood Waste Rock access road security gate about 1000 feet to the east. The proposed gate will be located about 150' west of State Road 57. The reason for moving the gate is vandalism. The current gate cannot be observed from the highway. The proposed gate location will not have this problem.

TECHNICAL ANALYSIS:

OPERATION PLAN

Support Facilities/Primary Road

Regulatory Reference: R645-301-526.200
R645-301-527.



Page 2
File/J. Helfrich
ACT/015/019-97B
March 31, 1997

Analysis:

Support Facilities/Primary Road

The construction project involves moving the current gate to a more propitious location. Natural or other barriers will prevent other vehicle access immediately adjacent to the gate. The gate is required by MSHA and federal regulations as related to security on the waste rock site. Vandals have cut locks that has resulted in problems for PacifiCorp.

Findings:

- 1) The applicant has submitted a complete and accurate application except for signing drawing CM-10826-WB.
- 2) The gate is located on federal land under the administration of BLM.
- 3) The gate is located on an area within the current active operation coal mine permitted disturbed waste rock area.
- 4) The gate is located on a road classified as a primary road under Utah Coal Rules.
- 5) Relocating the gate will not alter the current disturbed drainage system nor have any adverse impact on any other environmental components.
- 6) There are no special stipulations that are required.
- 7) Letters have been sent to MSHA and BLM soliciting their comments.
- 8) Moving the gate does not change the reclamation plan nor is a change in the reclamation bond necessary.

Page 3
File/J. Helfrich
ACT/015/019-97B
March 31, 1997

RECOMMENDATION:

Recommend approval of the amendment unless you have a problem with finding #1. PacifiCorp, I believe, takes the position they cannot certify a map until the project is completed and the gate is in place. Therefore two options exist:

- a) Consider finding #1 on certification a deficiency, or
- b) Require certified maps to be submitted after construction.

I recommend option b) rather than option a).

sd
A:\AMENDMEN\MEMOS\GATE.97B



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

April 9, 1997

Chuck Semborski, Environmental Supervisor
PacifiCorp
P.O. Box 310
Huntington, Utah 84528

RE: Waste Rock Site Gate Relocation, PacifiCorp, Cottonwood Mine, ACT/015/019-97B,
Folder #2, Emery County, Utah

Dear Mr. Semborski:

The referenced amendment is hereby approved effective March 31, 1997. As a follow up matter please submit 7 certified copies of the maps within 30 days of project completion.

If you have any questions please call me @ 538-5290.

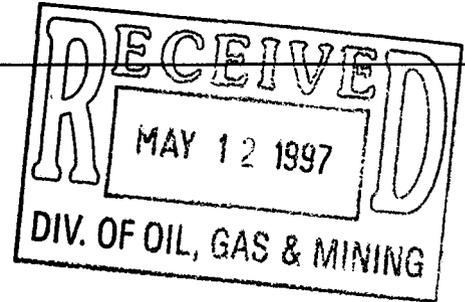
Sincerely,

Joseph C. Helfrich
Permit Supervisor

tt

cc: Ranvir Singh, OSM
Richard Manus, BLM, Price
Janette Kaiser, Forest Service
Mark Page, Water Rights
Dave Ariotti, Health
Bill Bates, DWR
Bill Malencik, PFO

O:\015019.CWW\DRAFT\APROV97B.WPD



May 8, 1997

Utah Coal Regulatory Program
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Attention: Mr. Joseph Helfrich

Re: Cottonwood Mine Waste Rock Site, Silt Fence Removal and Gate Relocation, PacifiCorp, Cottonwood Mine, ACT/015/019-97A, Folder #3, and 97B, Folder #2, Emery County, Utah. # 2

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company ("Energy West") as mine operator, herewith submit an As-Built drawing of the Cottonwood Waste Rock Refuse Site and Access Road. Where-in, the remaining silt fence and the drainage control silt fences are depicted along the access road and around the "Top-Soil Piles". The areas that are now utilizing vegetation cover as the primary means of erosion control are designated as such.

As indicated above the gate location for the access road has been shown at the new location and was completed April 25, 1997.

The drawing # CM-10826-WB is therefore submitted as requested and should cover all necessary requirements to finalize the original amendment, approved on January 30, 1997 and the gate relocation amendment approved on March 31, 1997.

Seven copies of page 2-2, of the Waste Rock Site Volume is re-submitted with the highlighted areas removed. This page was submitted with the original amendment to cover the text changes required for relocation of the gate.

Thank you for your continued support in expediting the above amendments, if there are any questions or concerns please call Charles Semborski at 687-4720 or Richard Northrup at 687-4822.

Huntington Office:
(801) 687-9821
Fax (801) 687-2695
Purchasing Fax (801) 687-9092

Deer Creek Mine:
(801) 381-2317
Fax (801) 381-2285

Cottonwood Mine:
(801) 748-2319
Fax (801) 748-2380

Sincerely,

A handwritten signature in cursive script, appearing to read "Richard Matheny" with a small "for" written below it.

Charles A. Semborski
Geology/Environmental Supervisor

cc: Blake Webster, Carl Pollastro, Barbara Adams (File)

13
4/28/97

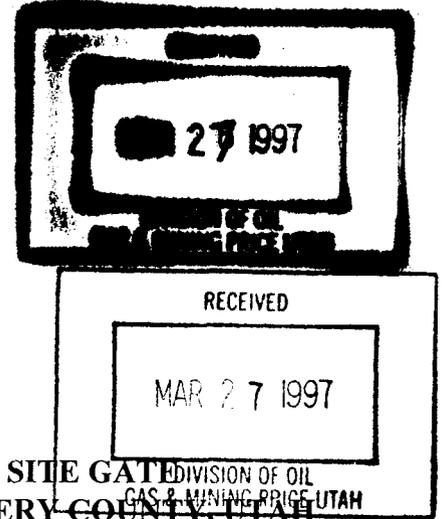
March 25, 1997

Utah Coal Regulatory Program
Division of Oil, Gas and Mining
451 East 400 North
Box 156
Price, Utah 84501

Attention: Mr. Bill Malencik

97B

Re: **AMENDMENT: COTTONWOOD WASTE ROCK SITE GATE RELOCATION, PACIFICORP, ACT/015/019, EMERY COUNTY, UTAH**



PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company ("Energy West") as mine operator, herewith submit an amendment to relocate the existing waste rock site gate.

BRIEF:

The existing gate location is positioned just outside the confines of the Refuse site at the end of the access road that leads to the waste rock site. The gate is required to be locked after normal working hours and is inspected by MSHA inspectors as well as the Division of Oil, Gas and Mining for compliance. It has been a troublesome situation to maintain the gate and keep locks secured. Due to the concealed nature of the existing gate location vandalism to the gate and locks is a constant concern and reality. The gate and locks have been repaired or replaced time and time again since original placement occurred.

PROPOSAL

It is our proposal at this time, after recently repairing the gate and chain lock again, that the gate location be placed at the beginning of the access road and in full view of Highway 57. This in hopes that people will see the locked gate from the highway and know that this is not a travelable road. This should also help discourage vandals, wherein the new location will not provided a concealed location in which to break or destroy the gate or locks without possibly being observed. Also, mine personnel will be able to view the gate from the road as they drive by, thus insuring that gate is closed and locked at the end of the days work.

CONSTRUCTION

The new location as mentioned above will be at the beginning of the access road to the waste rock site. The access road has a profile centerline with survey stationing, as shown on drawing CM-10826-WB, Plate 4-1, the gate location stationing will be approximately 2+20. New steel gate posts will be installed and placed in concrete, on either side of the access road. The gate opening is 31 feet wide. The existing gate will be utilized, removed and fastened to the new gate posts. Large boulders will be placed where needed to further discourage vehicles from trying to go around the gate when locked. The existing gate posts will remain in place.

PERMIT CHANGES

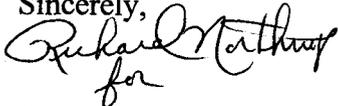
With this amendment the permit page 2-2, Waste Rock Site Volume, (only reference found) will need to be revised. The revision will state: The locked gate will be located at the beginning of the access road, station 2+20, to the waste rock storage facility. Please find attached seven copies of this page.

The drawing CM-10826-WB, Plate 4-1 of the Waste Rock volume will be revised to show the new location for the gate and posts.

Please find enclosed seven copies of the above drawing, the area change is highlighted.

Thank you for your help and assistance in completing this amendment, if there are any concerns please call Chuck Semborski at 687-4720, or Richard Northrup at 678-4822.

Sincerely,

Handwritten signature of Richard Northrup in cursive, with the word "for" written below it.

Charles A. Semborski
Geology/Environmental Supervisor

cc: Blake Webster
Carl Pollastro
File (Barbara)

APPLICATION FOR PERMIT PROCESSING

<input checked="" type="checkbox"/> Permit Change	<input type="checkbox"/> New Permit	<input type="checkbox"/> Renewal	<input type="checkbox"/> Transfer	<input type="checkbox"/> Exploration	<input type="checkbox"/> Bond Release	Permit Number: ACT/015/019
Title of Proposal: AMENDMENT: COTTONWOOD WASTE ROCK SITE GATE RELOCATION						Mine: COTTONWOOD/ WILBERG
						Permittee: PACIFICORP

Description, include reason for application and timing required to implement: *To relocate WRS gate, to prevent vandalism, easy view of gate from Highway, Required for early spring construction*

Instructions: If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Is the application submitted as a result of a Division Order? DO # _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	4. Does application include operations in hydrologic basins other than as currently approved?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6. Does the application require or include public notice/publication?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	9. Is the application submitted as a result of a Violation? NOV # _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	10. Is the application submitted as a result of other laws or regulations or policies? Explain: _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	11. Does the application affect the surface landowner or change the post mining land use?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?)
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	13. Does the application require or include collection and reporting of any baseline information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	15. Does application require or include soil removal, storage or placement?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	17. Does the application require or include construction, modification, or removal of surface facilities?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	18. Does the application require or include water monitoring, sediment or drainage control measures?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	19. Does the application require or include certified designs, maps, or calculations?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	20. Does the application require or include subsidence control or monitoring?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	21. Have reclamation costs for bonding been provided for?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

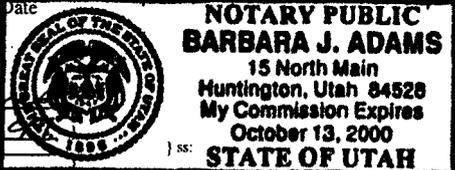
Attach 7 complete copies of the application.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein. (R645-301-123)

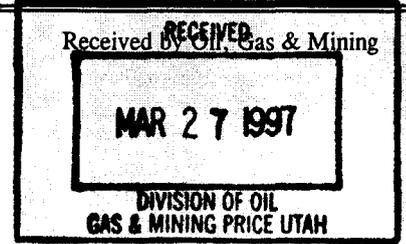
Barbara J. Adams
 Signed - Name - Position - Date

 Geology/Permitting Supervisor 3/25/97

Subscribed and sworn to before me this 25 day of Mar, 1997
Barbara J. Adams
 Notary Public



My Commission Expires: _____
 Attest: STATE OF _____
 COUNTY OF _____



ASSIGNED TRACKING NUMBER
97B



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340
(801) 359-3940 (Fax)

March 28, 1997

Richard Manus, Area Manager
Price River/San Rafael Resource Area
Bureau of Land Management
125 South 600 West
Price, Utah 84501

RE: Waste Rock Site Gate Relocation, PacifiCorp, Cottonwood Mine, ACT/015/019-97B,
Folder #2, Emery County, Utah

Dear Mr. Manus:

The Division of Oil, Gas, & Mining on March 27, 1997, received a permit amendment from PacifiCorp. The amendment concerns moving the Cottonwood Waste Rock access road security gate about 1000 feet to the east. The proposed gate will be located about 150' west of State Road 57. The reason for moving the gate is vandalism. The current gate cannot be observed from the highway. The new gate does not have this problem.

The Division anticipates acting on this permit amendment on April 4, 1997. Please provide your comments by this date to Mr. Joe Helfrich, DOGM, Salt Lake City.

Attached is a copy of the amendment for your review. If you have any questions, please contact Mr. Helfrich.

Sincerely,

Wm. J. Malencik
Reclamation Specialist

sd

Enclosures

cc: Chuck Semborski, PacifiCorp, Huntington, w/o enc
J. Helfrich, DOGM, SLC
P. Grubaugh-Littig, DOGM, SLC, w/o enc





State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210

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Salt Lake City, Utah 84114-5801

(801) 538-5340

(801) 359-3940 (Fax)

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

March 28, 1997

Jim Kirk, Sub-District Manager
Coal Mine Inspectors Office
Mine Safety and Health Administration
215 East Main
Price, Utah 84501

RE: Waste Rock Site Gate Relocation, PacifiCorp, Cottonwood Mine, ACT/015/019-97B,
Folder #2, Emery County, Utah

Dear Mr. Kirk:

The Division of Oil, Gas, & Mining on March 27, 1997, received a permit amendment from PacifiCorp. The amendment concerns moving the Cottonwood Waste Rock access road security gate about 1000 feet to the east. The proposed gate will be located about 150' west of State Road 57. The reason for moving the gate is vandalism. The current gate cannot be observed from the highway. The new gate does not have this problem.

The Division anticipates acting on this permit amendment on April 4, 1997. Please provide your comments by this date to Mr. Joe Helfrich, DOGM, Salt Lake City.

If you have any questions or need additional information, please contact Mr. Helfrich. A copy of the amendment application is on file for your review and comment at the DOGM Price Field Office and the DOGM Salt Lake Office.

Sincerely,

Wm. J. Malencik
Reclamation Specialist

sd

cc: Chuck Semborski, PacifiCorp, Huntington, w/o enc
J. Helfrich, DOGM, SLC
P. Grubaugh-Littig, DOGM, SLC, w/o enc

