

2006 ANNUAL REPORT

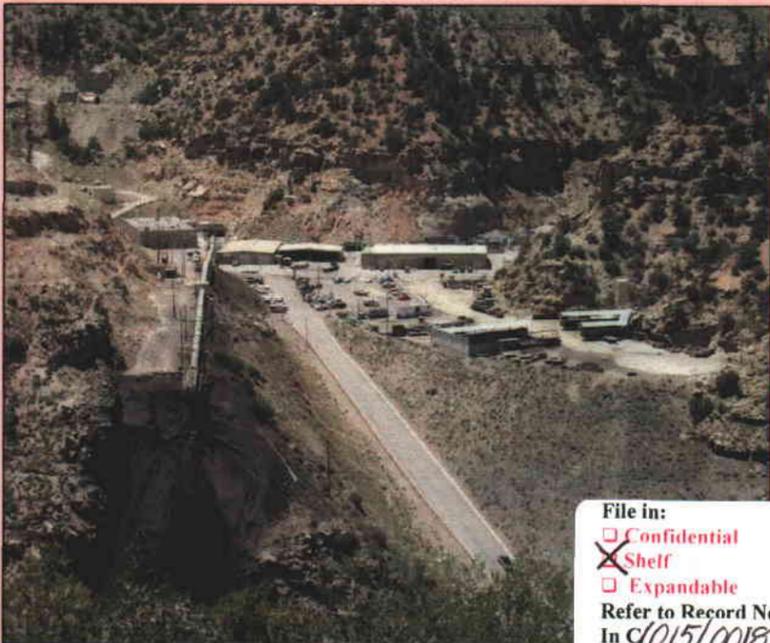
COTTONWOOD MINE C/015/019



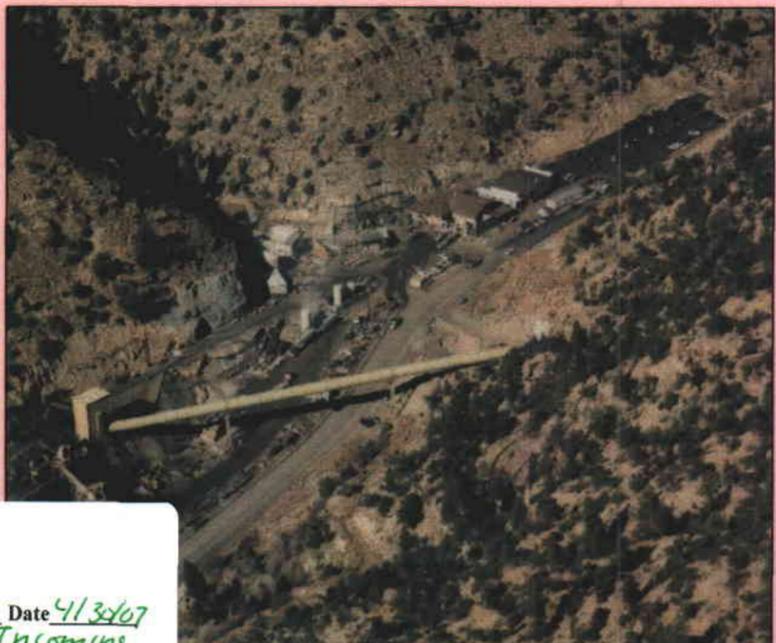
DES-BEE-DOVE MINES C/015/017



DEER CREEK MINE C/015/018



TRAIL MOUNTAIN MINE C/015/009



File in:
 Confidential
 Shelf
 Expandable
Refer to Record No. 0035 Date 4/3/07
In 9/015/0018 2007 Incoming
For additional information

2006 ANNUAL REPORT

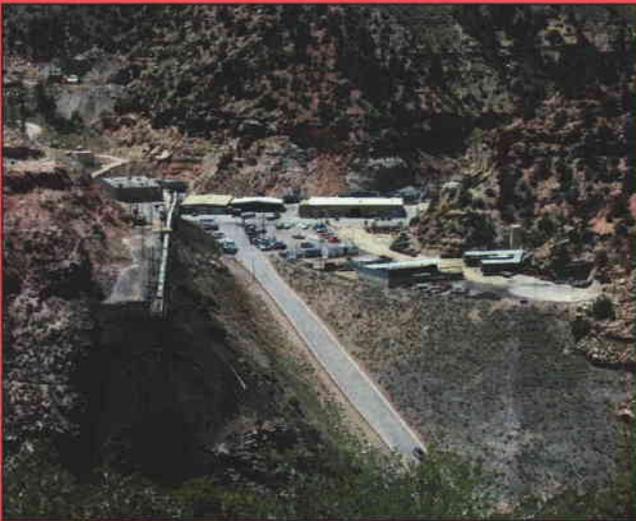
COTTONWOOD MINE C/015/019



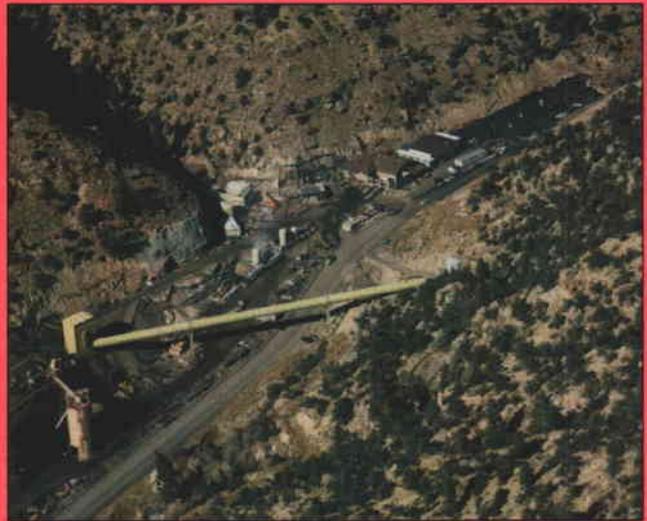
DES-BEE-DOVE MINES C/015/017



DEER CREEK MINE C/015/018



TRAIL MOUNTAIN MINE C/015/009



PACIFICORP

ENERGY WEST MINING COMPANY

COTTONWOOD/WILBERG MINE

DIVISION OF OIL, GAS, AND MINING PERMIT NUMBER

C/015/0019



2006 ANNUAL REPORT

To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.

GENERAL INFORMATION

Permitte Name	PacifiCorp
Mine Name	Cottonwood/Wilberg Mine
Operator Name (If other then permittee)	Energy West Mining Company
Permit Expiration Date	July 6, 2009
Permit Number	C/015/0019
Authorized Representative Title	Geology and Environmental Affairs Manager
Phone Number	(435) 687-4712
Fax Number	(435) 687-2695
E-mail Address	Ken.fleck@pacificorp.com
Mailing Address	P.O. Box 310 Huntington, Utah 84528
Designated Representative	Ken Fleck
Resident Agent	Ken Fleck
Resident Agent Mailing Address	Same as above
Number of Binders Submitted	2

IDENTIFICATION OF OTHER PERMITS

Identify other permits that are required in conjunction with mining and reclamation activities.

Permit Type	ID Number	Description	Expiration Date
MSHA Mine ID(s)	42-01221	Cottonwood/Wilberg Mine	None
MSHA Impoundment(s)	1211-UT-09-02052-02	North Sediment Pond	None
	1211-UT-09-02052-02	South Sediment Pond	None
NPDES/UPDES Permit(s)	UT0022896	Sites 001, 003, 004, and 005 consisting of mine discharge and sediment ponds	October 31, 2007
PSD Permit(s) (Air)	DAQE-694-95	Issued 8/9/95 includes Trail Mtn. Mine	None
	DAQE-835-91	Issued 12/16/91, includes WRS	None

Other

CERTIFIED REPORTS

List the certified inspection reports as required by the rules and under the approved plan that must be periodically submitted to the Division. Specify whether the information is included as Appendix A to this report or currently on file with the Division.

Certified Reports:	Required		Included or on file with DOGM		Comments
	Yes	No	Included	On File	
Excess Spoil Piles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Refuse Piles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer to Appendix A
Impoundments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No Discharge from Sediment Ponds in 2006
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

REPORTING OF OTHER TECHNICAL DATA

List other technical data and information as required under the approved plan, which must be periodically submitted to the Division. Specify whether the information is included as Appendix B to this report or currently on file with the Division.

Technical Data:	Required		Included or on file with DOGM		Comments
	Yes	No	Included	On file	
Climatological	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Subsidence Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Subsidence Report
Vegetation Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer to Appendix B
Raptor Survey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Filed in DWR's GIS Database
Soils Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer To Appendix E
Water Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
First quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Second quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Third quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Fourth quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Geological / Geophysical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Engineering	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Non Coal Waste / Abandoned Underground Equipment*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

*Reminder: If equipment has been abandoned during 2006, an amendment must be submitted that includes a map showing its location, a description of what was abandoned, whether there were any hazardous or toxic materials and any revision to the PHC as necessary.

PACIFICORP

ENERGY WEST MINING COMPANY

DEER CREEK MINE

DIVISION OF OIL, GAS, AND MINING PERMIT NUMBER

C/015/0018



2006 ANNUAL REPORT

To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.

GENERAL INFORMATION

Permitte Name	PacifiCorp
Mine Name	Deer Creek Mine
Operator Name	
(If other then permittee)	Energy West Mining Company
Permit Expiration Date	February 6, 2011
Permit Number	C/015/0018
Authorized Representative Title	Geology and Environmental Affairs Manager
Phone Number	(435) 687-4712
Fax Number	(435) 687-2695
E-mail Address	Ken.fleck@pacificorp.com
Mailing Address	P.O. Box 310 Huntington, Utah 84528
Designated Representative	Ken Fleck
Resident Agent	Ken Fleck
Resident Agent Mailing Address	Same as above
Number of Binders Submitted	2

IDENTIFICATION OF OTHER PERMITS

Identify other permits that are required in conjunction with mining and reclamation activities.

Permit Type	ID Number	Description	Expiration Date
MSHA Mine ID(s)	42-00221	Deer Creek Mine	None
MSHA Impoundment(s)	None		
NPDES/UPDES Permit(s)	UT0023604	Site 001, Sediment Pond Site 002, Mine Discharge	November 30, 2007
PSD Permit(s) (Air)	DAQE-926-96	Issued 10/4/96 Mine Tipple	None
	DAQE-926-91	Issued 12/5/91, WRS	None
Other			

CERTIFIED REPORTS

List the certified inspection reports as required by the rules and under the approved plan that must be periodically submitted to the Division. Specify whether the information is included as Appendix A to this report or currently on file with the Division.

Certified Reports:	Required		Included or on file with DOGM		Comments
	Yes	No	Included	On File	
Excess Spoil Piles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Refuse Piles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer to Appendix A
Impoundments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site 001: Sediment Pond
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

REPORTING OF OTHER TECHNICAL DATA

List other technical data and information as required under the approved plan, which must be periodically submitted to the Division. Specify whether the information is included as Appendix B to this report or currently on file with the Division.

Technical Data:	Required		Included or on file with DOGM		Comments
	Yes	No	Included	On file	
Climatological	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Subsidence Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Subsidence Report
Vegetation Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer to Appendix B
Raptor Survey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Filed in DWR's GIS Database
Soils Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer To Appendix E
Water Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
First quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Second quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Third quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Fourth quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Geological / Geophysical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Engineering	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Non Coal Waste / Abandoned Underground Equipment*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

*Reminder: If equipment has been abandoned during 2006, an amendment must be submitted that includes a map showing its location, a description of what was abandoned, whether there were any hazardous or toxic materials and any revision to the PHC as necessary.

PACIFICORP

ENERGY WEST MINING COMPANY

DES-BEE-DOVE MINE

DIVISION OF OIL, GAS, AND MINING PERMIT NUMBER

C/015/0017



2006 ANNUAL REPORT

To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.

GENERAL INFORMATION

Permitte Name	PacifiCorp
Mine Name	Des-Bee-Dove Mine
Operator Name	
(If other then permittee)	Energy West Mining Company
Permit Expiration Date	August 30, 2001 (Mine reclaimed in 2003)
Permit Number	C/015/0017
Authorized Representative Title	Geology and Environmental Affairs Manager
Phone Number	(435) 687-4712
Fax Number	(435) 687-2695
E-mail Address	Ken.fleck@pacificorp.com
Mailing Address	P.O. Box 310 Huntington, Utah 84528
Designated Representative	Ken Fleck
Resident Agent	Ken Fleck
Resident Agent Mailing Address	Same as above
Number of Binders Submitted	2

IDENTIFICATION OF OTHER PERMITS

Identify other permits that are required in conjunction with mining and reclamation activities.

Permit Type	ID Number	Description	Expiration Date
MSHA Mine ID(s)		Record abandoned by MSHA March 27, 1987	
MSHA Impoundment(s)	None		
NPDES/UPDES Permit(s)	UTG040022	Site 001, Sediment Pond Site reclaimed Jan. 31, 2006	April 30, 2008
PSD Permit(s) (Air)	N/A		
	N/A		

Other

CERTIFIED REPORTS

List the certified inspection reports as required by the rules and under the approved plan that must be periodically submitted to the Division. Specify whether the information is included as Appendix A to this report or currently on file with the Division.

Certified Reports:	Required		Included or on file with DOGM		Comments
	Yes	No	Included	On File	
Excess Spoil Piles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Refuse Piles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer to Cottonwood WRS in Appendix B
Impoundments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site 001: Sediment Pond
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Site reclaimed Jan. 31, 2006
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

REPORTING OF OTHER TECHNICAL DATA

List other technical data and information as required under the approved plan, which must be periodically submitted to the Division. Specify whether the information is included as Appendix B to this report or currently on file with the Division.

Technical Data:	Required		Included or on file with DOGM		Comments
	Yes	No	Included	On file	
Climatological	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Subsidence Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Subsidence Report
Vegetation Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer to Appendix B
Raptor Survey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Filed in DWR's GIS Database
Soils Monitoring	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Water Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
First quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Second quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Third quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Fourth quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Geological / Geophysical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Engineering	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Non Coal Waste / Abandoned Underground Equipment*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

*Reminder: If equipment has been abandoned during 2006, an amendment must be submitted that includes a map showing its location, a description of what was abandoned, whether there were any hazardous or toxic materials and any revision to the PHC as necessary.

PACIFICORP

ENERGY WEST MINING COMPANY

TRAIL MOUNTAIN MINE

DIVISION OF OIL, GAS, AND MINING PERMIT NUMBER

C/015/0009



2006 ANNUAL REPORT

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GENERAL INFORMATION

Permitte Name	PacifiCorp
Mine Name	Trail Mountain Mine
Operator Name (If other than permittee)	Energy West Mining Company
Permit Expiration Date	February 10, 2010
Permit Number	C/015/0009
Authorized Representative Title	Geology and Environmental Affairs Manager
Phone Number	(435) 687-4712
Fax Number	(435) 687-2695
E-mail Address	Ken.fleck@pacificcorp.com
Mailing Address	P.O. Box 310 Huntington, Utah 84528
Designated Representative	Ken Fleck
Resident Agent	Ken Fleck
Resident Agent Mailing Address	Same as above
Number of Binders Submitted	2

IDENTIFICATION OF OTHER PERMITS

Identify other permits that are required in conjunction with mining and reclamation activities.

Permit Type	ID Number	Description	Expiration Date
MSHA Mine ID(s)	42-01211	Trail Mountain Mine	None
MSHA Impoundment(s)			
NPDES/UPDES Permit(s)	UT0023728	Site 001, Sediment Pond Site 002, Mine Discharge	December 31, 2007
PSD Permit(s) (Air)	DAQE-694-95	Issued 8/9/95 includes Cottonwood Mine	None
Other			

CERTIFIED REPORTS

List the certified inspection reports as required by the rules and under the approved plan that must be periodically submitted to the Division. Specify whether the information is included as Appendix A to this report or currently on file with the Division.

Certified Reports:	Required		Included or on file with DOGM		Comments
	Yes	No	Included	On File	
Excess Spoil Piles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Refuse Piles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer to Cottonwood WRS in Appendix B
Impoundments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No Discharge from Sediment Ponds in 2006
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

REPORTING OF OTHER TECHNICAL DATA

List other technical data and information as required under the approved plan, which must be periodically submitted to the Division. Specify whether the information is included as Appendix B to this report or currently on file with the Division.

Technical Data:	Required		Included or on file with DOGM		Comments
	Yes	No	Included	On file	
Climatological	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Subsidence Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Subsidence Report
Vegetation Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer to Appendix B
Raptor Survey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Filed in DWR's GIS Database
Soils Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Water Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
First quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Second quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Third quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Fourth quarter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Separate Hydrologic Report
Geological / Geophysical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Engineering	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Non Coal Waste / Abandoned Underground Equipment*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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APPENDIX A

Certified Reports

Excess Spoil Piles
Refuse Piles
Impoundments

As required under R645-301-514

CONTENTS

Waste Rock Site reports for Cottonwood/Wilberg and Deer Creek mines
Impoundment reports for Cottonwood/Wilber, Deer Creek, Des-Bee-Dove, and Trail Mountain mines

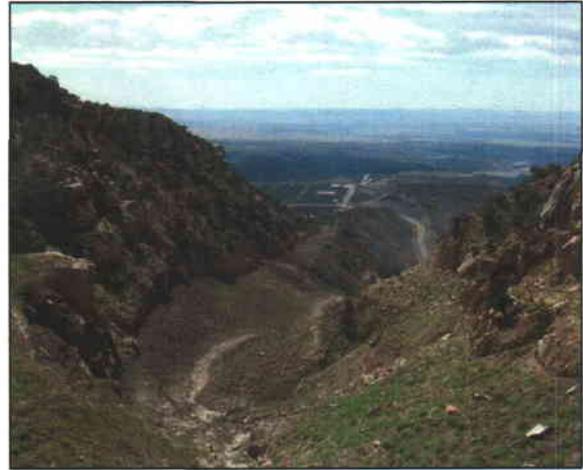
APPENDIX A

QUARTERLY WASTE ROCK SITE REPORTS

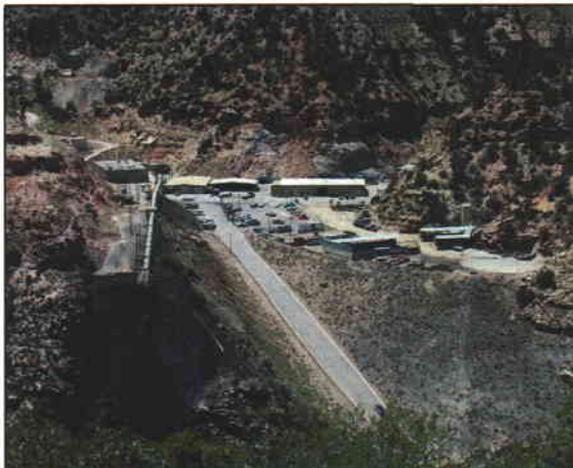
COTTONWOOD MINE C/015/0019



DES-BEE-DOVE MINES C/015/0017



DEER CREEK MINE C/015/018



TRAIL MOUNTAIN MINE C/015/009





PO Box 310
Huntington, Utah 84528

April 25, 2006

Ms. Pamela Grubaugh-Littig
Permit Supervisor
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Dear Ms. Grubaugh-Littig:

I am enclosing for submittal the 1st. Quarter 2006 Engineering Inspection Reports for Cottonwood/Wilberg and Des Bee Dove Waste Rock Site and the old Waste Rock Site. Also, the Deer Creek Waste Rock Site and Elk Canyon/Original Site are enclosed.

Sincerely,

John Christensen, P.E.
Sr. Construction Engineer

Encls.

Huntington Office:
(435) 687-9821
Fax (435) 687-2695

Deer Creek Mine:
(435) 687-2317
Fax (435) 687-2285

Permit Number	ACT/015/017/ACT/015/019	Report Date	March 29, 2006
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Mine Name	Cottonwood/Wilberg/Des-Bee-Dove/Trail Mountain
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Company Name	Energy West Mining Company
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Excess Spoil Pile or Refuse Pile Identification	File Name	Cottonwood Waste Rock Site
	File Number	
	MSHA ID Number	1211-UT-09-01211-03

Inspection Date	March 16, 2006
------------------------	----------------

Inspected By	John Christensen/Rick Cullum
---------------------	------------------------------

Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	2006 1 st . Quarter Inspection
Attachments to Report?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

Field Evaluation

Foundation preparation, including the removal of all organic material and topsoil.

Foundation was prepared according to the approved plan.

Placement of underdrains and protective filter systems.

Not applicable.

Installation of final surface drainage systems.

The out slopes of the containment berms are at their final configuration and have been revegetated. The inlet ditch to the pond has been lined with rip rap and is extended as the pile changes elevation.

Placement and compaction of fill materials.

The Trail Mountain Mine has ceased production. Mine refuse will no longer be haul to this site. The site will remain active to accommodate future pond cleanings at Trail Mountain, Cottonwood and Des-Bee-Dove Mines. Trail Mountain pond cleaning material from the 4th Qtr. 2005 was placed and partially spread over the site.

Final grading and revegetation of fill.

The outslopes of each containment/lift berm have had final grading and vegetation completed.

Appearances of instability, structural weakness, and other hazardous conditions.

None seen.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

The total storage capacity of the site is a 784,000 cubic yards. The elevation of the current lift varies with the required drainage slope. The surveyed elevation at the center of the active lift is 6,803.31 ft. The final design elevation will be 6,850 ft. The entire site is approximately 36% capacity. The useable area of the present lift is approximately 97%.

Certification
Statement



I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer
(Full Name and Title)

Signature: *John Christensen*

Date: 1/24/06

P.E. Number & State: 165651, Utah

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/0017/ACT/015/019	Report Date	March 29, 2006
Mine Name	Cottonwood/Wilberg/Des-Bee-Dove		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	File Name	Old Waste Rock Site	
	File Number		
	MSHA ID Number		
Inspection Date	March 16, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 1 st . Quarter Inspection	
		Attachments to Report? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Field Evaluation			
Foundation preparation, including the removal of all organic material and topsoil.			
Constructed according to plan.			
Placement of underdrains and protective filter systems.			
Not applicable.			
Installation of final surface drainage systems.			
All surfaces are at their final configuration and drainage established.			
Placement and compaction of fill materials.			
This site is complete and at capacity.			

Final grading and revegetation of fill.

Site is complete and vegetation has been established.

Appearances of instability, structural weakness, and other hazardous conditions.

None observed.

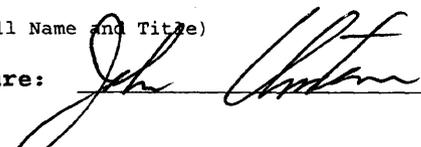
Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

There haven't been any changes at the site since the last inspection. Limited snow covered the site during the inspection.

Certification Statement I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer

(Full Name and Title)

Signature: 

Date: 1/24/06

P.E. Number & State: 165651, Utah





PO Box 310
Huntington, Utah 84528

June 28, 2006

Ms. Pamela Grubaugh-Littig
Permit Supervisor
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Dear Ms. Grubaugh-Littig:

I am enclosing for submittal the 2nd. Quarter 2006 Engineering Inspection Reports for Cottonwood/Wilberg and Des Bee Dove Waste Rock Site and the old Waste Rock Site. Also, the Deer Creek Waste Rock Site and Elk Canyon/Original Site are enclosed.

Sincerely,

John Christensen, P.E.
Sr. Construction Engineer

Encls.

Huntington Office:
(435) 687-9821
Fax (435) 687-2695

Deer Creek Mine:
(435) 687-2317
Fax (435) 687-2285

Permit Number	ACT/015/017/ACT/015/019	Report Date	JUNE 29, 2006
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Mine Name	Cottonwood/Wilberg/Des-Bee-Dove/Trail Mountain
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Company Name	Energy West Mining Company
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Excess Spoil Pile or Refuse Pile Identification	File Name	Cottonwood Waste Rock Site
	File Number	
	MSHA ID Number	1211-UT-09-01211-03

Inspection Date	JUNE 22, 2006
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Inspected By	John Christensen/Rick Cullum
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Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	2006 2ND Quarter Inspection
	Attachments to Report? x No Yes

Field Evaluation

Foundation preparation, including the removal of all organic material and topsoil.

Foundation was prepared according to the approved plan.

Placement of underdrains and protective filter systems.

Not applicable.

Installation of final surface drainage systems.

The out slopes of the containment berms are at their final configuration and have been revegetated. The inlet ditch to the pond has been lined with rip rap and is extended as the pile changes elevation.

Placement and compaction of fill materials.

The Trail Mountain Mine has ceased production. Mine refuse will no longer be haul to this site. The site will remain active to accommodate future pond cleanings at Trail Mountain, Cottonwood and Des-Bee-Dove Mines. Trail Mountain pond cleaning material from the 4th Qtr. 2005 was placed and partially spread over the site.

Final grading and revegetation of fill.

The out slopes of each containment/lift berm have had final grading and vegetation completed.

Appearances of instability, structural weakness, and other hazardous conditions.

None seen.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

The total storage capacity of the site is a 784,000 cubic yards. The elevation of the current lift varies with the required drainage slope. The surveyed elevation at the center of the active lift is 6,803.31 ft. The final design elevation will be 6,850 ft. The entire site is approximately 36% capacity. The useable area of the present lift is approximately 97%.

Certification
Statement

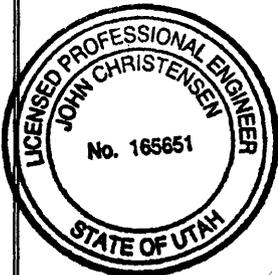
I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer
(Full Name and Title)

Signature: *John Christensen*

Date: 6/29/06

P.E. Number & State: 165651, Utah



INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/0017/ACT/015/019	Report Date	JUNE 29, 2006
Mine Name	Cottonwood/Wilberg/Des-Bee-Dove		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	Pile Name	Old Waste Rock Site	
	Pile Number		
	MSHA ID Number		
Inspection Date	JUNE 21, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 2nd Quarter Inspection	
		Attachments to Report? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Field Evaluation			
Foundation preparation, including the removal of all organic material and topsoil.			
Constructed according to plan.			
Placement of underdrains and protective filter systems.			
Not applicable.			
Installation of final surface drainage systems.			
All surfaces are at their final configuration and drainage established.			
Placement and compaction of fill materials.			
This site is complete and at capacity.			

Final grading and revegetation of fill.

Site is complete and vegetation has been established.

Appearances of instability, structural weakness, and other hazardous conditions.

None observed.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

There haven't been any changes at the site since the last inspection. The site was dry.

Certification Statement I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer

(Full Name and Title)

Signature: *John Christensen*

Date: 6/29/06

P.E. Number & State: 165651, Utah





PO Box 310
Huntington, Utah 84528

October 25, 2006

Ms. Pamela Grubaugh-Littig
Permit Supervisor
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Dear Ms. Grubaugh-Littig:

I am enclosing for submittal the 3rd. Quarter 2006 Engineering Inspection Reports for Cottonwood/Wilberg and Des Bee Dove Waste Rock Site and the old Waste Rock Site. Also, the Deer Creek Waste Rock Site and Elk Canyon/Original Site are enclosed.

Sincerely,

John Christensen, P.E.
Sr. Construction Engineer

Encls.

Huntington Office:
(435) 687-9821
Fax (435) 687-2695

Deer Creek Mine:
(435) 687-2317
Fax (435) 687-2285

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/017/ACT/015/019	Report Date	SEPT. 29, 2006
Mine Name	Cottonwood/Wilberg/Des-Bee-Dove/Trail Mountain		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	File Name	Cottonwood Waste Rock Site	
	File Number		
	MSEA ID Number	1211-UT-09-01211-03	
Inspection Date	SEPT. 27, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 3RD Quarter Inspection	
		Attachments to Report? <input type="checkbox"/> No <input type="checkbox"/> Yes	
Field Evaluation			
Foundation preparation, including the removal of all organic material and topsoil. Foundation was prepared according to the approved plan.			
Placement of underdrains and protective filter systems. Not applicable.			
Installation of final surface drainage systems. The out slopes of the containment berms are at their final configuration and have been revegetated. The inlet ditch to the pond has been lined with rip rap and is extended as the pile changes elevation.			
Placement and compaction of fill materials. The Trail Mountain Mine has ceased production. Mine refuse will no longer be haul to this site. The site will remain active to accommodate future pond cleanings at Trail Mountain, Cottonwood and Des-Bee-Dove Mines. Trail Mountain pond cleaning material from the 4 th Qtr. 2005 was placed and partially spread over the site.			
Final grading and revegetation of fill. The outslopes of each containment/lift berm have had final grading and vegetation completed.			

Appearances of instability, structural weakness, and other hazardous conditions.

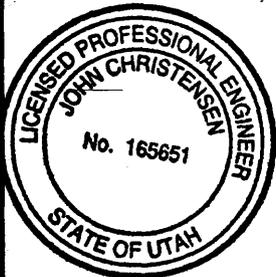
None seen.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

The total storage capacity of the site is a 784,000 cubic yards. The elevation of the current lift varies with the required drainage slope. The surveyed elevation at the center of the active lift is 6,803.31 ft. The final design elevation will be 6,850 ft. The entire site is approximately 36% capacity. The useable area of the present lift is approximately 97%.

Certification Statement

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.



By: John Christensen, Sr. Construction Engineer
(Full Name and Title)

Signature: *John Christensen*

Date: 10/25/06

P.E. Number & State: 165651, Utah

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/0017/ACT/015/019	Report Date	SEPT. 29, 2006
Mine Name	Cottonwood/Wilberg/Des-Bee-Dove		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	File Name	Old Waste Rock Site	
	File Number		
	MSHA ID Number		
Inspection Date	SEPT. 29, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 3rd Quarter Inspection	
		Attachments to Report? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Field Evaluation			
Foundation preparation, including the removal of all organic material and topsoil.			
Constructed according to plan.			
Placement of underdrains and protective filter systems.			
Not applicable.			
Installation of final surface drainage systems.			
All surfaces are at their final configuration and drainage established.			
Placement and compaction of fill materials.			
This site is complete and at capacity.			

Final grading and revegetation of fill.

Site is complete and vegetation has been established.

Appearances of instability, structural weakness, and other hazardous conditions.

None observed.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

There haven't been any changes at the site since the last inspection. The site was dry.

Certification Statement I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

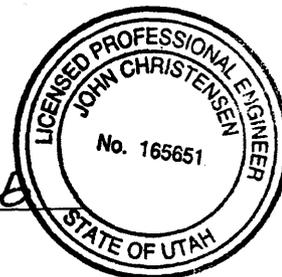
By: John Christensen, Sr. Construction Engineer

(Full Name and Title)

Signature: *John Christensen*

Date: 10/25/08

P.E. Number & State: 165651, Utah





PO Box 310
Huntington, Utah 84528

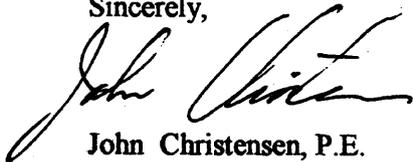
January 18, 2007

Ms. Pamela Grubaugh-Littig
Permit Supervisor
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Dear Ms. Grubaugh-Littig:

I am enclosing for submittal the 4th. Quarter 2006 Engineering Inspection Reports for Cottonwood/Wilberg and Des Bee Dove Waste Rock Site and the old Waste Rock Site. Also, the Deer Creek Waste Rock Site and Elk Canyon/Original Site are enclosed.

Sincerely,



John Christensen, P.E.
Sr. Construction Engineer

Encls.

Huntington Office:
(435) 687-9821
Fax (435) 687-2695

Deer Creek Mine:
(435) 687-2317
Fax (435) 687-2285

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/017/ACT/015/019	Report Date	DEC. 29, 2006
Mine Name	Cottonwood/Wilberg/Des-Bee-Dove/Trail Mountain		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	File Name	Cottonwood Waste Rock Site	
	File Number		
	MSHA ID Number	1211-UT-09-01211-03	
Inspection Date	DEC. 18, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	2006 4TH Quarter Inspection		
	Attachments to Report? x No Yes		
Field Evaluation			
Foundation preparation, including the removal of all organic material and topsoil.			
Foundation was prepared according to the approved plan.			
Placement of underdrains and protective filter systems.			
Not applicable.			
Installation of final surface drainage systems.			
The out slopes of the containment berms are at their final configuration and have been revegetated. The inlet ditch to the pond has been lined with rip rap and is extended as the pile changes elevation.			
Placement and compaction of fill materials.			
The Trail Mountain Mine has ceased production. Mine refuse will no longer be haul to this site. The site will remain active to accommodate future pond cleanings at Trail Mountain, Cottonwood and Des-Bee-Dove Mines. Trail Mountain pond cleaning material from the 4 th Qtr. 2005 was placed and partially spread over the site.			
Final grading and revegetation of fill.			
The outslopes of each containment/lift berm have had final grading and vegetation completed.			

Appearances of instability, structural weakness, and other hazardous conditions.

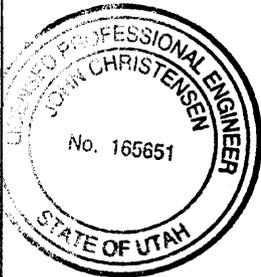
None seen.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

The total storage capacity of the site is a 784,000 cubic yards. The elevation of the current lift varies with the required drainage slope. The surveyed elevation at the center of the active lift is 6,803.31 ft. The final design elevation will be 6,850 ft. The entire site is approximately 36% capacity. The useable area of the present lift is approximately 97%. Snow covered portions of the area.

Certification
Statement

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.



By: John Christensen, Sr. Construction Engineer
(Full Name and Title)

Signature: *John Christensen*

Date: 1/23/07

P.E. Number & State: 165651, Utah

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/0017/ACT/015/019	Report Date	DEC. 29, 2006
Mine Name	Cottonwood/Wilberg/Des-Bee-Dove		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	File Name	Old Waste Rock Site	
	File Number		
	MSHA ID Number		
Inspection Date	DEC. 18, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 Fourth Quarter Inspection	
		Attachments to Report? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Field Evaluation			
Foundation preparation, including the removal of all organic material and topsoil.			
Constructed according to plan.			
Placement of underdrains and protective filter systems.			
Not applicable.			
Installation of final surface drainage systems.			
All surfaces are at their final configuration and drainage established.			
Placement and compaction of fill materials.			
This site is complete and at capacity.			

Final grading and revegetation of fill.

Site is complete and vegetation has been established.

Appearances of instability, structural weakness, and other hazardous conditions.

None observed.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

There haven't been any changes at the site since the last inspection. Some snow covered the site during the inspection.

Certification Statement I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer

(Full Name and Title)

Signature: *John Christensen*

Date: 1/23/07

P.E. Number & State: 165651, Utah





PO Box 310
Huntington, Utah 84528

April 25, 2006

Ms. Pamela Grubaugh-Littig
Permit Supervisor
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Dear Ms. Grubaugh-Littig:

I am enclosing for submittal the 1st. Quarter 2006 Engineering Inspection Reports for Cottonwood/Wilberg and Des Bee Dove Waste Rock Site and the old Waste Rock Site. Also, the Deer Creek Waste Rock Site and Elk Canyon/Original Site are enclosed.

Sincerely,

John Christensen, P.E.
Sr. Construction Engineer

Encls.

Huntington Office:
(435) 687-9821
Fax (435) 687-2695

Deer Creek Mine:
(435) 687-2317
Fax (435) 687-2285

Permit Number	ACT/015/018	Report Date	MARCH 29, 2006
Mine Name	Deer Creek		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	Pile Name	Waste Rock Disposal Site	
	Pile Number		
	MSHA ID Number	1211-UT-09-00121-02	
Inspection Date	MARCH 27, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 FIRST Quarter Inspection	
		Attachments to Report? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

All construction was done according to the permitted, professional engineered design specifications.

2. Placement of underdrains and protective filter systems.

An underdrain was installed when the site was constructed in 1989. The drain had a small amount of flow coming through it at the time of the inspection.

3. Installation of final surface drainage systems.

All interim slopes are maintained at their proper grade. The final slopes are surveyed to assure they are correct. Also the two final designed rip-rap ditches were installed as per the permitted plan and are extended as more lifts are added.

4. Placement and compaction of fill materials.

The lower site (area 2) was leveled in July 2005. Trash and extraneous material were removed. Lift was sampled as required. The containment trench in the upper cell for sediment pond cleanings was spread out and leveled.

5. Final grading and revegetation of fill.

See No. 3.

The sub-soil berm surrounding the site was seeded shortly after construction.

6. Appearances of instability, structural weakness, and other hazardous conditions.

No weakness or instabilities are evident at this time.

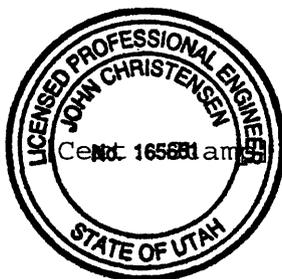
Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

The total storage capacity of the Area No. 1 cell is 460,000 cubic yards.

The elevation of the current lift varies with the required drainage slope. The surveyed elevation at the center of the active lift in cell 1 is 6358.44 ft and cell 2 is 6325.11. The final design elevation will be 6,369 ft. The Area No. 2 cell is approximately 10% capacity. The area in cell 1 is approximately 2% capacity. The Lower Cell 2 was leveled, cleaned of trash during the 1st. Quarter of 2006.

As of March 1, 2006, 2,854.38 cubic yards of material was hauled in 2006.

**Certification
Statement**



I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer
(Full Name and Title)

Signature: *John Christensen*

Date: 4/24/06

P.E. Number & State: 165651, Utah

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/018	Report Date	March 29, 2006
Mine Name	Deer Creek		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	File Name	ELK CANYON/ORIGINAL SITE	
	File Number		
	MSHA ID Number	1211-UT-09-00121-01	
Inspection Date	March 16, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 1 st . Quarter Inspection	
		Attachments to Report? XNo Yes	
Field Evaluation			
Foundation preparation, including the removal of all organic material and topsoil.			
The construction of both sites have been complete for some time in excess of 15 years. The foundations appear to be stable.			
Placement of underdrains and protective filter systems.			
None			
Installation of final surface drainage systems.			
The slopes of both sites have no rills, gullies or sloughage present.			
Placement and compaction of fill materials.			
No fill material is being placed at either site, since both are at their designed capacity. The Elk Canyon site contains approximately 24,000 cubic original site 90,000 cubic yards of fill material.			

Final grading and revegetation of fill.

The sites are at capacity. The final grades are established and are revegetated.

Appearances of instability, structural weakness, and other hazardous conditions.

None were observed.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

There was approximately 3,000 tons of coal stored at the Elk Canyon pad at the time of inspection.

Certification Statement I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer

(Full Name and Title)

Signature: *John Christensen*

Date: 4/24/06

P.E. Number & State: 165651, Utah





PO Box 310
Huntington, Utah 84528

June 28, 2006

Ms. Pamela Grubaugh-Littig
Permit Supervisor
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Dear Ms. Grubaugh-Littig:

I am enclosing for submittal the 2nd. Quarter 2006 Engineering Inspection Reports for Cottonwood/Wilberg and Des Bee Dove Waste Rock Site and the old Waste Rock Site. Also, the Deer Creek Waste Rock Site and Elk Canyon/Original Site are enclosed.

Sincerely,

John Christensen, P.E.
Sr. Construction Engineer

Encls.

Huntington Office:
(435) 687-9821
Fax (435) 687-2695

Deer Creek Mine:
(435) 687-2317
Fax (435) 687-2285

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/018	Report Date	JUNE 29, 2006
Mine Name	Deer Creek		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	Pile Name	Waste Rock Disposal Site	
	Pile Number		
	MSHA ID Number	1211-UT-09-00121-02	
Inspection Date	JUNE 22, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 Second Quarter Inspection	
		Attachments to Report? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

All construction was done according to the permitted, professional engineered design specifications.

2. Placement of underdrains and protective filter systems.

An underdrain was installed when the site was constructed in 1989. The drain had a small amount of flow coming through it at the time of the inspection.

3. Installation of final surface drainage systems.

All interim slopes are maintained at their proper grade. The final slopes are surveyed to assure they are correct. Also the two final designed rip-rap ditches were installed as per the permitted plan and are extended as more lifts are added.

4. Placement and compaction of fill materials.

The lower site (area 2) was leveled in July 2005. Trash and extraneous material were removed. Lift was sampled as required. The containment trench in the upper cell for sediment pond cleanings was spread out and leveled.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/018	Report Date	JUNE 29, 2006
Mine Name	Deer Creek		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	Pile Name	ELK CANYON/ORIGINAL SITE	
	Pile Number		
	MSHA ID Number	1211-UT-09-00121-01	
Inspection Date	JUNE 22, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 2nd Quarter Inspection	
		Attachments to Report? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Field Evaluation			
Foundation preparation, including the removal of all organic material and topsoil.			
The construction of both sites have been complete for some time in excess of 18 years. The foundations appear to be stable.			
Placement of underdrains and protective filter systems.			
None			
Installation of final surface drainage systems.			
The slopes of both sites have no rills, gullies or sloughage present.			
Placement and compaction of fill materials.			
No fill material is being placed at either site, since both are at their designed capacity. The Elk Canyon site contains approximately 24,000 cubic original site 90,000 cubic yards of fill material.			

Final grading and revegetation of fill.

The sites are at capacity. The final grades are established and are revegetated.

Appearances of instability, structural weakness, and other hazardous conditions.

None were observed.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

There was approximately 1,000 tons of coal stored at the Elk Canyon pad at the time of inspection.

Certification Statement I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer

(Full Name and Title)

Signature: *John Christensen*

Date: 6/29/06

P.E. Number & State: 165651, Utah





PO Box 310
Huntington, Utah 84528

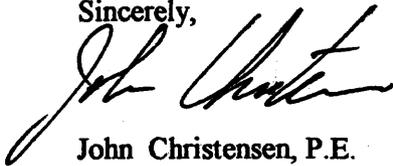
October 25, 2006

Ms. Pamela Grubaugh-Littig
Permit Supervisor
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Dear Ms. Grubaugh-Littig:

I am enclosing for submittal the 3rd. Quarter 2006 Engineering Inspection Reports for Cottonwood/Wilberg and Des Bee Dove Waste Rock Site and the old Waste Rock Site. Also, the Deer Creek Waste Rock Site and Elk Canyon/Original Site are enclosed.

Sincerely,



John Christensen, P.E.
Sr. Construction Engineer

Encls.

Huntington Office:
(435) 687-9821
Fax (435) 687-2695

Deer Creek Mine:
(435) 687-2317
Fax (435) 687-2285

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/018	Report Date	SEPT. 29, 2006
Mine Name	Deer Creek		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	Pile Name	Waste Rock Disposal Site	
	Pile Number		
	MSHA ID Number	1211-UT-09-00121-02	
Inspection Date	SEPT. 29, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection <small>(Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)</small>		2006 Third Quarter Inspection	
		Attachments to Report? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

All construction was done according to the permitted, professional engineered design specifications.

2. Placement of underdrains and protective filter systems.

An underdrain was installed when the site was constructed in 1989. The drain had a small amount of flow coming through it at the time of the inspection.

3. Installation of final surface drainage systems.

All interim slopes are maintained at their proper grade. The final slopes are surveyed to assure they are correct. Also the two final designed rip-rap ditches were installed as per the permitted plan and are extended as more lifts are added.

4. Placement and compaction of fill materials.

The lower site (area 2) was leveled in Sept. 2006. Trash and extraneous material were removed. Lift was sampled as required. The containment trench in the upper cell for sediment pond cleanings was spread out and leveled.

5. Final grading and revegetation of fill.

See No. 3.

The sub-soil berm surrounding the site was seeded shortly after construction.

6. Appearances of instability, structural weakness, and other hazardous conditions.

No weakness or instabilities are evident at this time.

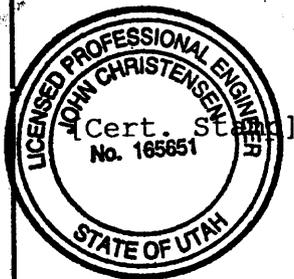
Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

The total storage capacity of the Area No. 1 cell is 460,000 cubic yards.

The elevation of the current lift varies with the required drainage slope. The surveyed elevation at the center of the active lift in cell 1 is 6359.01 ft and cell 2 is 6327.46 The final design elevation will be 6,369 ft. The Area No. 2 cell is approximately 7% capacity. The area in cell 1 is approximately 4% capacity. The Lower Cell 2 was leveled, cleaned of trash during the 3rd Quarter of 2006.

As of Sept. 1, 2006, 13,968.78 cubic yards of material was hauled in 2006.

Certification Statement



I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer
(Full Name and Title)

Signature: *John Christensen*

Date: 10/25/06

P.E. Number & State: 165651, Utah

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/018	Report Date	SEPT. 29, 2006
Mine Name	Deer Creek		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	Pile Name	ELK CANYON/ORIGINAL SITE	
	Pile Number		
	MSHA ID Number	1211-UT-09-00121-01	
Inspection Date	SEPT 29, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 3rd Quarter Inspection	
		Attachments to Report? XNo Yes	
Field Evaluation			
<p>Foundation preparation, including the removal of all organic material and topsoil.</p> <p>The construction of both sites have been complete for some time in excess of 18 years. The foundations appear to be stable.</p>			
<p>Placement of underdrains and protective filter systems.</p> <p>None</p>			
<p>Installation of final surface drainage systems.</p> <p>The slopes of both sites have no rills, gullies or sloughage present.</p>			
<p>Placement and compaction of fill materials.</p> <p>No fill material is being placed at either site, since both are at their designed capacity. The Elk Canyon site contains approximately 24,000 cubic original site 90,000 cubic yards of fill material.</p>			

Final grading and revegetation of fill.

The sites are at capacity. The final grades are established and are revegetated.

Appearances of instability, structural weakness, and other hazardous conditions.

None were observed.

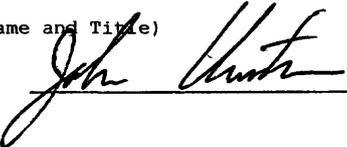
Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

There was approximately 2,000 tons of coal stored at the Elk Canyon pad at the time of inspection.

Certification Statement I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer

(Full Name and Title)

Signature: 

Date: 10/25/1986

P.E. Number & State: 165651, Utah





PO Box 310
Huntington, Utah 84528

January 18, 2007

Ms. Pamela Grubaugh-Littig
Permit Supervisor
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Dear Ms. Grubaugh-Littig:

I am enclosing for submittal the 4th. Quarter 2006 Engineering Inspection Reports for Cottonwood/Wilberg and Des Bee Dove Waste Rock Site and the old Waste Rock Site. Also, the Deer Creek Waste Rock Site and Elk Canyon/Original Site are enclosed.

Sincerely,

John Christensen, P.E.
Sr. Construction Engineer

Encls.

Huntington Office:
(435) 687-9821
Fax (435) 687-2695

Deer Creek Mine:
(435) 687-2317
Fax (435) 687-2285

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/018	Report Date	DEC. 29, 2006
Mine Name	Deer Creek		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	Pile Name	Waste Rock Disposal Site	
	Pile Number		
	MSHA ID Number	1211-UT-09-00121-02	
Inspection Date	DEC. 13, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 Fourth Quarter Inspection	
		Attachments to Report? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

All construction was done according to the permitted, professional engineered design specifications.

2. Placement of underdrains and protective filter systems.

An underdrain was installed when the site was constructed in 1989. The drain had a small amount of flow coming through it at the time of the inspection.

3. Installation of final surface drainage systems.

All interim slopes are maintained at their proper grade. The final slopes are surveyed to assure they are correct. Also the two final designed rip-rap ditches were installed as per the permitted plan and are extended as more lifts are added.

4. Placement and compaction of fill materials.

The lower site (area 2) was leveled in Sept. 2006. Trash and extraneous material were removed. Lift was sampled as required. The containment trench in the upper cell for sediment pond cleanings was spread out and leveled.

5. Final grading and revegetation of fill.

See No. 3.

The sub-soil berm surrounding the site was seeded shortly after construction.

6. Appearances of instability, structural weakness, and other hazardous conditions.

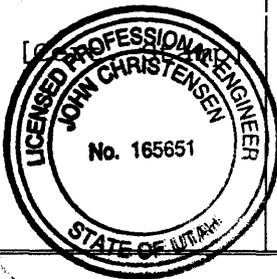
No weakness or instabilities are evident at this time.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

The total storage capacity of the Area No. 1 cell is 460,000 cubic yards. The elevation of the current lift varies with the required drainage slope. The surveyed elevation at the center of the active lift in cell 1 is 6359.43 ft and cell 2 is 6327.76. The final design elevation will be 6,369 ft. The Area No. 2 cell is approximately 40% capacity. The area in cell 1 is approximately 96% capacity. The Lower Cell 2 was leveled, cleaned of trash during the 3rd Quarter of 2006. As of DEC. 1, 2006, 18,831 cubic yards of material was hauled in 2006.

**Certification
Statement**

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.



By: John Christensen, Sr. Construction Engineer
(Full Name and Title)

Signature: *John Christensen*

Date: 1/23/07

P.E. Number & State: 165651, Utah

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Page 1 of 2	
Permit Number	ACT/015/018	Report Date	DEC. 29, 2006
Mine Name	Deer Creek		
Company Name	Energy West Mining Company		
Excess Spoil Pile or Refuse Pile Identification	File Name	ELK CANYON/ORIGINAL SITE	
	File Number		
	MSHA ID Number	1211-UT-09-00121-01	
Inspection Date	DEC 18, 2006		
Inspected By	John Christensen/Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		2006 4TH Quarter Inspection	
		Attachments to Report? XNo Yes	
Field Evaluation			
Foundation preparation, including the removal of all organic material and topsoil.			
The construction of both sites have been complete for some time in excess of 18 years. The foundations appear to be stable.			
Placement of underdrains and protective filter systems.			
None			
Installation of final surface drainage systems.			
The slopes of both sites have no rills, gullies or sloughage present.			
Placement and compaction of fill materials.			
No fill material is being placed at either site, since both are at their designed capacity. The Elk Canyon site contains approximately 24,000 cubic original site 90,000 cubic yards of fill material.			

Final grading and revegetation of fill.

The sites are at capacity. The final grades are established and are revegetated.

Appearances of instability, structural weakness, and other hazardous conditions.

None were observed.

Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

There was approximately 1,000 tons of coal stored at the Elk Canyon pad at the time of inspection.

Certification Statement I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: John Christensen, Sr. Construction Engineer

(Full Name and Title)

Signature: *John Christensen*

Date:

P.E. Number & State: 165651, Utah



APPENDIX A
QUARTERLY IMPOUNDMENT REPORTS

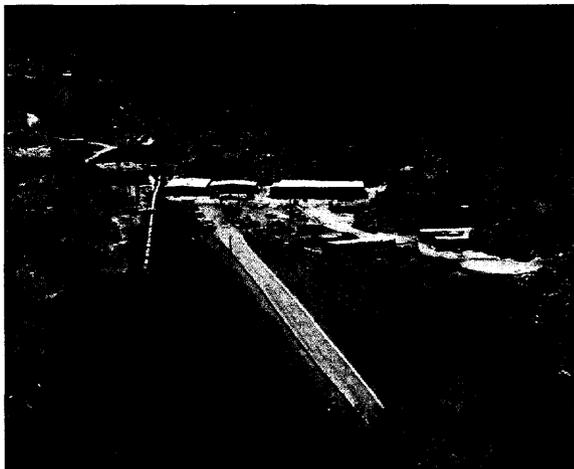
COTTONWOOD MINE C/015/0019



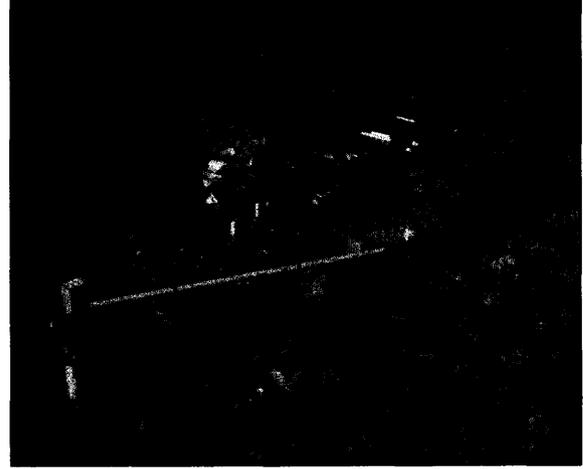
DES-BEE-DOVE MINES C/015/0017



DEER CREEK MINE C/015/018



TRAIL MOUNTAIN MINE C/015/009



IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2	
Permit Number	ACT/015/019	Report Date	March 29, 2006
Mine Name	Cottonwood/Wilberg		
Company Name	PacifiCorp		
Impoundment Name...	North Pond	South Pond	Waste Rock Pond
Impoundment Number.			
UPDES Permit Number			
MSHA ID NUMBER.....		UT 0022896-003A	UT 0022896-005
	1211-UT-09-02052-02	1211-UT-09-02052-03	

IMPOUNDMENT INSPECTION

Inspection Date	March 16, 2006,
Inspected By	Rick Cullum/ John Christensen
	1ST Quarter Inspection 2006

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

North Pond: No instabilities or weaknesses observed.

South Pond: No instabilities or weaknesses observed.

Waste Rock Site Pond: No instabilities observed.

Required for an impoundment which functions as a SEDIMENTATION POND.	Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.			
		<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock</u>
	<u>Pond</u>			
	60% Design Storage Capacity	.34 A.F. at 7351.0 ft.	.19 A.F. at 7322.3 ft.	1.45 A.F. at 6761.5 ft.
	100% Sediment Capacity	.56 A.F. at 7354.83 ft.	.32 A.F. at 7325.33 ft.	2.42 A.F. at 6765.3 ft.
	Principle and emergency spillway elevations.			
		<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
	Principal Spillway Elevation	7354.83	7325.33	6766.3
	Emergency Spillway Elevation	7363.33	7334.2	6770.0

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

	<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
Water Elevation	7354.27	DRY	6761.57
Discharging	NO	NO	No
Inlet/Outlet Condition	Good	Good	Good
Slope conditions	Good	Good	Good

*See "Hydrologic Monitoring Data" report submitted to DOGM quarterly for monitoring information.

Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

	<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
Sediment Volume	0.18 AF	0.00 AF	1.19 AF
Remaining Sediment Storage Capacity	0.38 AF	0.32 AF	2.23 AF
Water Impounded	0.27 AF	0.0 AF	0.12 AF

Changes, Comments,

THE COTTONWOOD MINE WAS IDLED IN 2001, SO THE ONLY WATER THAT REPORTS TO THE PONDS are RUN-OFF DURING A STORM EVENT. SNOW WAS PRESENT AT THE TIME OF THE INSPECTION and water impounded was frozen.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: *John Christensen* Date: 4/24/06
 Signature: *Rick Culbertson* Date: 4-28-06

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2	
Permit Number	ACT/015/019	Report Date	JUNE 29, 2006
Mine Name	Cottonwood/Wilberg		
Company Name	PacifiCorp		
Impoundment Name...	North Pond	South Pond	Waste Rock Pond
Impoundment Number.			
UPDES Permit Number			
MSHA ID NUMBER.....		UT 0022896-003A	UT 0022896-005
	1211-UT-09-02052-02	1211-UT-09-02052-03	

IMPOUNDMENT INSPECTION

Inspection Date	JUNE 21, 2006,
Inspected By	Rick Cullum/ John Christensen
	2ND Quarter Inspection 2006

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

North Pond: No instabilities or weaknesses observed.

South Pond: No instabilities or weaknesses observed.

Waste Rock Site Pond: No instabilities observed.

Required for an impoundment which functions as a SEDIMENTATION POND.	Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.			
		<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock</u>
	<u>Pond</u>			
	60% Design	.34 A.F.	.19 A.F.	1.45 A.F.
	Storage Capacity	at 7351.0 ft.	at 7322.3 ft.	at 6761.5 ft.
	100% Sediment	.56 A.F.	.32 A.F.	2.42 A.F.
	Capacity	at 7354.83 ft.	at 7325.33 ft.	at 6765.3 ft.
	Principle and emergency spillway elevations.			
		<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
	Principal Spillway Elevation	7354.83	7325.33	6766.3
	Emergency Spillway Elevation	7363.33	7334.2	6770.0

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

	<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
Water Elevation	7353.87	DRY	DRY
Discharging	NO	NO	No
Inlet/Outlet Condition	Good	Good	Good
Slope conditions	Good	Good	Good

*See "Hydrologic Monitoring Data" report submitted to DOGM quarterly for monitoring information.

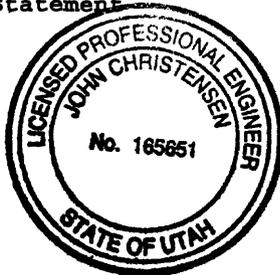
Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

	<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
Sediment Volume	0.18 AF	0.00 AF	1.19 AF
Remaining Sediment Storage Capacity	0.38 AF	0.32 AF	1.23 AF
Water Impounded	0.257 AF	0.0 AF	0.0 AF

Changes, Comments,

THE COTTONWOOD MINE WAS IDLED IN 2001, SO THE ONLY WATER THAT REPORTS TO THE PONDS are RUN-OFF DURING A STORM EVENT.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: *John Christensen*
 Signature: *Richard Cullum*

Date: 6/29/06
 Date: 6-30-06

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2	
Permit Number	ACT/015/019	Report Date	SEPT. 29, 2006
Mine Name	Cottonwood/Wilberg		
Company Name	PacifiCorp		
Impoundment Name...	North Pond	South Pond	Waste Rock Pond
Impoundment Number.			
UPDES Permit Number			
MSHA ID NUMBER.....		UT 0022896-003A	UT 0022896-005
	1211-UT-09-02052-02	1211-UT-09-02052-03	

IMPOUNDMENT INSPECTION

Inspection Date	SEPT. 27, 2006,
Inspected By	Rick Cullum/ John Christensen
	3RD Quarter Inspection 2006

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

North Pond: No instabilities or weaknesses observed.

South Pond: No instabilities or weaknesses observed.

Waste Rock Site Pond: No instabilities observed.

Required for an impoundment which functions as a SEDIMENTATION POND.	Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.			
		<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock</u>
	<u>Pond</u>			
	60% Design	.34 A.F.	.19 A.F.	1.45 A.F.
	Storage Capacity	at 7351.0 ft.	at 7322.3 ft.	at 6761.5 ft.
	100% Sediment	.56 A.F.	.32 A.F.	2.42 A.F.
	Capacity	at 7354.83 ft.	at 7325.33 ft.	at 6765.3 ft.
	Principle and emergency spillway elevations.			
		<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
	Principal Spillway Elevation	7354.83	7325.33	6766.3
	Emergency Spillway Elevation	7363.33	7334.2	6770.0

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

	<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
Water Elevation	7353.47	DRY	DRY
Discharging	NO	NO	No
Inlet/Outlet Condition	Good	Good	Good
Slope conditions	Good	Good	Good

*See "Hydrologic Monitoring Data" report submitted to DOGM quarterly for monitoring information.

Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

	<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
Sediment Volume	0.18 AF	0.00 AF	1.19 AF
Remaining Sediment Storage Capacity	0.38 AF	0.32 AF	1.23 AF
Water Impounded	0.24 AF	0.0 AF	0.0 AF

Changes, Comments,

THE COTTONWOOD MINE WAS IDLED IN 2001, SO THE ONLY WATER THAT REPORTS TO THE PONDS are RUN-OFF DURING A STORM EVENT.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: *John Christensen*

Date: 10/26/06

Signature: *Richard Cullum*

Date: 10-26-06

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2	
Permit Number	ACT/015/019	Report Date	DEC. 29, 2006
Mine Name	Cottonwood/Wilberg		
Company Name	PacifiCorp		
Impoundment Name...	North Pond	South Pond	Waste Rock Pond
Impoundment Number.			
UPDES Permit Number			
MSHA ID NUMBER.....		UT 0022896-003A	UT 0022896-005
	1211-UT-09-02052-02	1211-UT-09-02052-03	

IMPOUNDMENT INSPECTION

Inspection Date	DEC. 18, 2006,
Inspected By	Rick Cullum/ John Christensen
	4TH Quarter Inspection 2006

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

North Pond: No instabilities or weaknesses observed.

South Pond: No instabilities or weaknesses observed.

Waste Rock Site Pond: No instabilities observed.

Required for an impoundment which functions as a SEDIMENTATION POND.	Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.			
		<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock</u>
	<u>Pond</u>			
	60% Design Storage Capacity	.34 A.F. at 7351.0 ft.	.19 A.F. at 7322.3 ft.	1.45 A.F. at 6761.5 ft.
	100% Sediment Capacity	.56 A.F. at 7354.83 ft.	.32 A.F. at 7325.33 ft.	2.42 A.F. at 6765.3 ft.
	Principle and emergency spillway elevations.			
		<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
	Principal Spillway Elevation	7354.83	7325.33	6766.3
	Emergency Spillway Elevation	7363.33	7334.2	6770.0

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

	<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
Water Elevation	7353.47 Top of ice	DRY	6762.37 Top of ice
Discharging	NO	NO	No
Inlet/Outlet Condition	Good	Good	Good
Slope conditions	Good	Good	Good

*See "Hydrologic Monitoring Data" report submitted to DOGM quarterly for monitoring information.

Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

	<u>North Pond</u>	<u>South Pond</u>	<u>Waste Rock Pond</u>
Sediment Volume	0.18 AF	0.00 AF	1.19 AF
Remaining Sediment Storage Capacity	0.38 AF	0.32 AF	1.23 AF
Water Impounded	0.24 AF	0.0 AF	0.41 AF

Changes, Comments,

THE COTTONWOOD MINE WAS IDLED IN 2001, SO THE ONLY WATER THAT REPORTS TO THE PONDS are RUN-OFF DURING A STORM EVENT.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen

Date: 1/23/07

Signature: Richard Cullen

Date: 1-23-07

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Page 1 of 2
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Permit Number	ACT/015/018	Report Date	MARCH 29, 2006
Mine Name	Deer Creek Mine		
Company Name	Energy West Mining		
Impoundment Identification	Impoundment Name	Mine Site Pond:	Waste Rock Pond:
	Impoundment Number		
	UPDES Permit Number	UT-0023604-001	
	MSHA ID Number	N/A	N/A

IMPOUNDMENT INSPECTION

Inspection Date	Mine Site: 3/27/06	Waste Rock Pond 3/13/06	
Inspected By	Rick Cullum / John Christensen		

Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	1ST Quarter 2006 Inspection
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1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
Conditions, Comments Etc.	No hazards observed.	No hazards observed.

Required for an impoundment which functions as a SEDIMENTATION POND.	<p>Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%; text-align: center;"><u>Mine Site Pond:</u></th> <th style="width:35%; text-align: center;"><u>Waste Rock Pond:</u></th> </tr> </thead> <tbody> <tr> <td>60% Design Storage Capacity</td> <td style="text-align: center;">1.87 A.F. at 7213.1 ft.</td> <td style="text-align: center;">.59 A.F. at 6312.7 ft.</td> </tr> <tr> <td>100% Sediment Capacity</td> <td style="text-align: center;">3.12 A.F. at 7216.0 ft.</td> <td style="text-align: center;">.98 A.F. at 6313.45 ft.</td> </tr> </tbody> </table> <hr/> <p>Principle and emergency spillway elevations.</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%; text-align: center;"><u>Mine Site Pond</u></th> <th style="width:35%; text-align: center;"><u>Waste Rock Pond</u></th> </tr> </thead> <tbody> <tr> <td>Principle Spillway Elevation (F.A.S.L.):</td> <td style="text-align: center;">7218.64</td> <td style="text-align: center;">6318.0</td> </tr> <tr> <td>Emergency Spillway Elevation</td> <td style="text-align: center;">7232.03</td> <td style="text-align: center;">6318.0</td> </tr> </tbody> </table>		<u>Mine Site Pond:</u>	<u>Waste Rock Pond:</u>	60% Design Storage Capacity	1.87 A.F. at 7213.1 ft.	.59 A.F. at 6312.7 ft.	100% Sediment Capacity	3.12 A.F. at 7216.0 ft.	.98 A.F. at 6313.45 ft.		<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>	Principle Spillway Elevation (F.A.S.L.):	7218.64	6318.0	Emergency Spillway Elevation	7232.03	6318.0
	<u>Mine Site Pond:</u>	<u>Waste Rock Pond:</u>																	
60% Design Storage Capacity	1.87 A.F. at 7213.1 ft.	.59 A.F. at 6312.7 ft.																	
100% Sediment Capacity	3.12 A.F. at 7216.0 ft.	.98 A.F. at 6313.45 ft.																	
	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>																	
Principle Spillway Elevation (F.A.S.L.):	7218.64	6318.0																	
Emergency Spillway Elevation	7232.03	6318.0																	

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
Water Elevation	7223.23	None
Discharging	Yes	Never
Inlet, Outlet, Spillway Conditions	Good	Good
Out slope Conditions	No Change	No Change

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
Sediment Volume	2.36 A.F.	None
Remaining Sediment Storage Capacity	0.76 A.F.	0.98 A.F.
Water impounded	4.04 A.F.	NONE
Changes, Comments, etc.	The pond was partially cleaned in the fourth quarter of 2005. The pond was frozen at the time of inspection.	
		No change from last inspection.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: *John Christensen*
 Signature: *Rick Cellum*

Date: 7/24/06
 Date: 4-28-06

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2	
Permit Number	ACT/015/018	Report Date	JUNE 29, 2006
Mine Name	Deer Creek Mine		
Company Name	Energy West Mining		
Impoundment Identification	Impoundment Name	Mine Site Pond:	Waste Rock Pond:
	Impoundment Number		
	UPDES Permit Number	UT-0023604-001	
	MSHA ID Number	N/A	N/A

IMPOUNDMENT INSPECTION							
Inspection Date	Mine Site: 6/19/06 Waste Rock Pond 3/13/06						
Inspected By	Rick Cullum / John Christensen						
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	2ND Quarter 2006 Inspection						
1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.							
	<table border="0"> <tr> <td></td> <td style="text-align: center;"><u>Mine Site Pond</u></td> <td style="text-align: center;"><u>Waste Rock Pond</u></td> </tr> <tr> <td>Conditions, Comments Etc.</td> <td style="text-align: center;">No hazards observed.</td> <td style="text-align: center;">No hazards observed.</td> </tr> </table>		<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>	Conditions, Comments Etc.	No hazards observed.	No hazards observed.
	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>					
Conditions, Comments Etc.	No hazards observed.	No hazards observed.					

Required for an impoundment which functions as a SEDIMENTATION POND.	Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.	
	<u>Mine Site Pond:</u>	<u>Waste Rock Pond:</u>
	60% Design Storage Capacity	1.87 A.F. at 7213.1 ft. .59 A.F. at 6312.7 ft.
	100% Sediment Capacity	3.12 A.F. at 7216.0 ft. .98 A.F. at 6313.45 ft.
	Principle and emergency spillway elevations.	
	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
Principle Spillway Elevation (F.A.S.L.):	7218.64	6318.0
Emergency Spillway Elevation	7232.03	6318.0

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
Water Elevation	7223.06	None
Discharging	Yes	Never
Inlet, Outlet, Spillway Conditions	Good	Good
Out slope Conditions	No Change	No Change

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
Sediment Volume	2.76 A.F.	None
Remaining Sediment Storage Capacity	0.36 A.F.	0.98 A.F.
Water impounded	4.14 A.F.	NONE
Changes, Comments, etc.	The pond was partially cleaned in the fourth quarter of 2005 and is scheduled to be cleaned this quarter.	No change from last inspection.

Qualification

State of Utah



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____

Signature: _____

Date: 6/29/06

Date: 6-30-06

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2	
Permit Number	ACT/015/018	Report Date	SEPT. 29, 2006
Mine Name	Deer Creek Mine		
Company Name	Energy West Mining		
Impoundment Identification	Impoundment Name	Mine Site Pond:	Waste Rock Pond:
	Impoundment Number		
	UPDES Permit Number	UT-0023604-001	
	MSHA ID Number	N/A	N/A
IMPOUNDMENT INSPECTION			
Inspection Date	9/29/06	Waste Rock Pond	9/29/06
Inspected By	Rick Cullum / John Christensen		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	3RD Quarter 2006 Inspection		
1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.			
	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>	
Conditions, Comments Etc.	No hazards observed.	No hazards observed.	
Required for an impoundment which functions as a SEDIMENTATION POND.	Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.		
		<u>Mine Site Pond:</u>	<u>Waste Rock Pond:</u>
	60% Design Storage Capacity	1.87 A.F. at 7213.1 ft.	.59 A.F. at 6312.7 ft.
	100% Sediment Capacity	3.12 A.F. at 7216.0 ft.	.98 A.F. at 6313.45 ft.
	Principle and emergency spillway elevations.		
		<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
	Principle Spillway Elevation (F.A.S.L.):	7218.64	6318.0
	Emergency Spillway Elevation	7232.03	6318.0

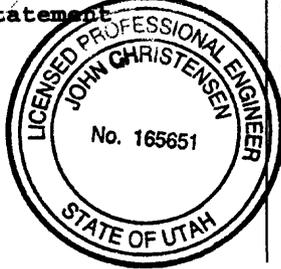
Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
Water Elevation	7226.26	None
Discharging	Yes	Never
Inlet, Outlet, Spillway Conditions	Good	Good
Out slope Conditions	No Change	No Change

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
Sediment Volume	2.76 A.F.	None
Remaining Sediment Storage Capacity	0.36 A.F.	0.98 A.F.
Water impounded	5.94 A.F.	NONE
Changes, Comments, etc.	The pond was partially cleaned in the fourth quarter of 2005 and is scheduled to be cleaned this quarter.	No change from last inspection.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: *John Christensen*
 Signature: *Richard Cullum*

Date: 10/29/06
 Date: 10-26-06

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2	
Permit Number	ACT/015/018	Report Date	DEC. 29, 2006
Mine Name	Deer Creek Mine		
Company Name	Energy West Mining		
Impoundment Identification	Impoundment Name	Mine Site Pond:	Waste Rock Pond:
	Impoundment Number		
	UPDES Permit Number	UT-0023604-001	
	MSHA ID Number	N/A	N/A
IMPOUNDMENT INSPECTION			
Inspection Date	12/ 9/06	Waste Rock Pond	12/ 9/06
Inspected By	Rick Cullum / John Christensen		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	4TH Quarter 2006 Inspection		
1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.			
	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>	
Conditions, Comments Etc.	No hazards observed.	No hazards observed.	
Required for an impoundment which functions as a SEDIMENTATION POND.	Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.		
		<u>Mine Site Pond:</u>	<u>Waste Rock Pond:</u>
	60% Design Storage Capacity	1.87 A.F. at 7213.1 ft.	.59 A.F. at 6312.7 ft.
	100% Sediment Capacity	3.12 A.F. at 7216.0 ft.	.98 A.F. at 6313.45 ft.
	Principle and emergency spillway elevations.		
		<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
	Principle Spillway Elevation (F.A.S.L.):	7218.64	6318.0
	Emergency Spillway Elevation	7232.03	6318.0

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
Water Elevation	7222.20 TOP OF ICE	None
Discharging	Yes	Never
Inlet, Outlet, Spillway Conditions	Good	Good
Out slope Conditions	No Change	No Change

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

	<u>Mine Site Pond</u>	<u>Waste Rock Pond</u>
Sediment Volume	2.76 A.F.	None
Remaining Sediment Storage Capacity	0.36 A.F.	0.98 A.F.
Water impounded	3.59 A.F.	NONE
Changes, Comments, etc.	The pond was partially cleaned in the fourth quarter of 2005 and is scheduled to be Cleaned when ice melts.	No change from last inspection.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: *John Christensen*
 Signature: *Richard Cullen*

Date: 1/23/07
 Date: 1-23-07

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2
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Permit Number	ACT/015/017	Report Date	March 29, 2005 2006 GD.
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Mine Name	Des Bee Dove		
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Company Name	Energy West Mining Company		
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Impoundment Identification	Impoundment Name	Mine Site Pond	
	Impoundment Number		
	UPDES Permit Number	UT-0023591	
	MSHA ID Number		

IMPOUNDMENT INSPECTION	
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Inspection Date	March 16, 2006
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Inspected By	Rick Cullum/John Christensen
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Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	1 st Quarter 2006 Inspection
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1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

There are no visible signs of weakness or instability.

Required for an impoundment which functions as a SEDIMENTATION POND.	<p>Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>60% Design Storage Capacity 1.2 A.F. at 6756</p> <p>100% Sediment Capacity 2.0 A.F. at 6757</p> <hr/> <p>Principle and emergency spillway elevations.</p> <p>Principle Spillway Elevation (F.A.S.L.): 6757.0</p> <p>Emergency Spillway Elevation: (F.A.S.L.): 6771.8</p>
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Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

Water Elevation 0
Discharging No
Inlet, Outlet Conditions Good
Slope conditions Good

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Sediment Volume: N. A.
Remaining Sediment Storage Capacity N. A.

Water Impoundment:

Changes or Comments Reclamation of the pond is completed and this will be the last impoundment inspection completed.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen Date: 4/24/06
Signature: Ruek Cullum Date: 4-28-06

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2	
Permit Number	ACT/015/009	Report Date	MARCH 29, 2006
Mine Name	Trail Mountain Mine		
Company Name	Energy West Mining Company		
Impoundment Identification	Impoundment Name	Trail Mountain Mine Pond:	
	Impoundment Number		
	UPDES Permit Number	UT-G04003-001	
	MSHA ID Number	N/A	
IMPOUNDMENT INSPECTION			
Inspection Date	MARCH 16, 2006		
Inspected By	John Christensen / Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	1ST Quarter 2006 Inspection		
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>No unstable or structural weaknesses found.</p>			
Required for an impoundment which functions as a SEDIMENTATION POND.	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>60% Design Storage Capacity 0.282 A.F. at 7182</p> <p>100% Sediment Capacity 0.47 A.F. at 7183.6</p>		
	<p>3. Principle and emergency spillway elevations.</p> <p>Principle Spillway Elevation (F.A.S.L.): 7186.6</p> <p>Emergency Spillway Elevation: (F.A.S.L.): 7194.6</p>		

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

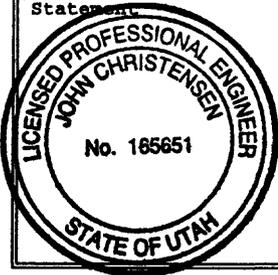
Water Elevation 7182.33
 Discharging No
 Inlet, Outlet Conditions Good
 Slope conditions Good

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Sediment Volume 0.08 A.F.
 Remaining Sediment Storage Capacity 0.39 A.F.
 Water Impounded 0.20 A.F.
 Changes, comments, etc. Mining has seized at Trail Mtn. operations, only storm run off will run into the pond. The pond was cleaned in 4th Quarter 2005. The pond was frozen on the inspection date.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen Date: 4/29/06
 Signature: Rick Culham Date: 4-28-06

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2
Permit Number	ACT/015/009	Report Date JUNE 29, 2006
Mine Name	Trail Mountain Mine	
Company Name	Energy West Mining Company	
Impoundment Identification	Impoundment Name	Trail Mountain Mine Pond:
	Impoundment Number	
	UPDES Permit Number	UT-G04003-001
	MSHA ID Number	N/A
IMPOUNDMENT INSPECTION		
Inspection Date	JUNE 22, 2006	
Inspected By	John Christensen / Rick Cullum	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	2ND Quarter 2006 Inspection	
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>No unstable or structural weaknesses found.</p>		
Required for an impoundment which functions as a SEDIMENTATION POND.	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>60% Design Storage Capacity 0.282 A.F. at 7182</p> <p>100% Sediment Capacity 0.47 A.F. at 7183.6</p>	
	<p>3. Principle and emergency spillway elevations.</p> <p>Principle Spillway Elevation (F.A.S.L.): 7186.6</p> <p>Emergency Spillway Elevation:(F.A.S.L.): 7194.6</p>	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Water Elevation 7182.33
 Discharging No
 Inlet, Outlet Conditions Good
 Slope conditions Good

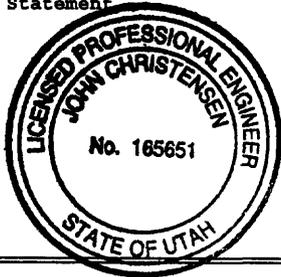
*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Sediment Volume 0.16 A.F.
 Remaining Sediment Storage Capacity 0.31 A.F.
 Water Impounded 0.15 A.F.

Changes, comments, etc. Mining has seized at Trail Mtn. operations, only storm run off will run into the pond. The pond was cleaned in 4th Quarter 2005.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen Date: 6/29/06
 Signature: Richard Cullen Date: 6-30-06

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2	
Permit Number	ACT/015/009	Report Date	SEPT. 29, 2006
Mine Name	Trail Mountain Mine		
Company Name	Energy West Mining Company		
Impoundment Identification	Impoundment Name	Trail Mountain Mine Pond:	
	Impoundment Number		
	UPDES Permit Number	UT-G04003-001	
	MSHA ID Number	N/A	
IMPOUNDMENT INSPECTION			
Inspection Date	SEPT. 27, 2006		
Inspected By	John Christensen / Rick Cullum		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	3RD Quarter 2006 Inspection		
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>No unstable or structural weaknesses found.</p>			
Required for an impoundment which functions as a SEDIMENTATION POND.	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>60% Design Storage Capacity 0.282 A.F. at 7182</p> <p>100% Sediment Capacity 0.47 A.F. at 7183.6</p>		
	<p>3. Principle and emergency spillway elevations.</p> <p>Principle Spillway Elevation (F.A.S.L.): 7186.6</p> <p>Emergency Spillway Elevation:(F.A.S.L.): 7194.6</p>		

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

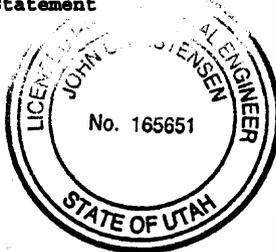
Water Elevation 7181.13
 Discharging No
 Inlet, Outlet Conditions Good
 Slope conditions Good

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Sediment Volume 0.16 A.F.
 Remaining Sediment Storage Capacity 0.31 A.F.
 Water Impounded 0.07 A.F.
 Changes, comments, etc. Mining has seized at Trail Mtn. operations, only storm run off will run into the pond. The pond was cleaned in 4th Quarter 2005.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: *[Handwritten Signature]*
 Signature: *[Handwritten Signature]*

Date: 10/26/06
 Date: 10-26-06

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 2
Permit Number	ACT/015/009	Report Date
Mine Name	Trail Mountain Mine	
Company Name	Energy West Mining Company	
Impoundment Identification	Impoundment Name	Trail Mountain Mine Pond:
	Impoundment Number	
	UPDES Permit Number	UT-G04003-001
	MSHA ID Number	N/A
IMPOUNDMENT INSPECTION		
Inspection Date	DEC.18, 2006	
Inspected By	John Christensen / Rick Cullum	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		4TH Quarter 2006 Inspection
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>No unstable or structural weaknesses found.</p>		
Required for an impoundment which functions as a SEDIMENTATION POND.	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>60% Design Storage Capacity 0.282 A.F. at 7182</p> <p>100% Sediment Capacity 0.47 A.F. at 7183.6</p>	
	<p>3. Principle and emergency spillway elevations.</p> <p>Principle Spillway Elevation (F.A.S.L.): 7186.6</p> <p>Emergency Spillway Elevation: (F.A.S.L.): 7194.6</p>	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

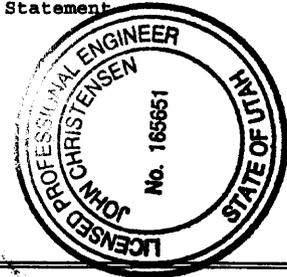
Water Elevation 7181.33 Top of ice
 Discharging No
 Inlet, Outlet Conditions Good
 Slope conditions Good

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Sediment Volume 0.16 A.F.
 Remaining Sediment Storage Capacity 0.31 A.F.
 Water Impounded 0.04 A.F.
 Changes, comments, etc. Mining has seized at Trail Mtn. operations, only storm run off will run into the pond. The pond was cleaned in 4th Quarter 2005.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness, or other hazardous conditions of the structure affecting stability.

Signature: [Signature] Date: 1/23/07
 Signature: [Signature] Date: 1-23-07

APPENDIX B

Reporting of Technical Data

Including monitoring data, reports, maps, and other information
As required under the approved plan or as required by the Division

In accordance with the requirement of R645-310-130 and R645-301-140

CONTENTS

2006 Vegetation Monitoring Report – Mt. Nebo Scientific

**VEGETATION MONITORING
FOR PHASE III BOND RELEASE
OLD WASTE ROCK SITE
YEAR TWO: 2006**

COTTONWOOD MINE WASTE ROCK SITE



Prepared by

MT. NEBO SCIENTIFIC, INC.

330 East 400 South, Suite 6

P.O. Box 337

Springville, Utah 84663

(801) 489-6937

Patrick D. Collins, Ph.D.

for

ENERGY WEST MINING COMPANY

P.O. Box 310

Huntington, Utah 84528



March 2007

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**VEGETATION MONITORING
FOR PHASE III BOND RELEASE
OLD WASTE ROCK SITE
YEAR TWO: 2006**

COTTONWOOD MINE WASTE ROCK SITE

INTRODUCTION

This report is the second of two consecutive years required of vegetation sampling following the “responsibility period” to show revegetation success of an area that has been reclaimed by Energy West Mining Company. As required by state and federal regulations, vegetation parameters must be compared to the success standards that are dictated in the mining permit. In order to support grazing and wildlife that exist on this reclaimed range land, specific vegetation standards were set by designating a *reference area*, or an area previously chosen to be protected from unnatural disturbances so it could represent standards for final revegetation success. The reference area lies adjacent to the Old Waste Rock Site. The plant community supported within the reference area is pinyon-juniper, the same community that was disturbed to create the waste rock site for the mine. Because the reference area is located in such close proximity, other environmental variables were also similar to the reclaimed waste rock site (e.g. soils, elevation, exposure, precipitation, etc.).

The reclaimed site was first constructed of several waste “cells” that were bound by “berms”. The site was created several years ago as a disposal site for waste rock products from the

Cottonwood Mine. The total waste rock site is less than 15 acres in size. Since the time that the cells were constructed, they have been filled to the engineered capacity with the waste rock material created by coal mining operations. The waste material was then covered with topsoil or substitute topsoil and revegetated to a condition that should ultimately support the post-mining land use.

Because the cells were filled to capacity at different times, reclamation also occurred at different time periods. Or, because all cells and berms were *not* reseeded at the same time, completion of the operator's *Responsibility Period* for some cells and berms were different. The Responsibility Period is the specific time period required for vegetation establishment on reclaimed lands before the final bond release application can be submitted. This means that for some cells and berms, Phase III Bond Release applications could have been submitted before others. However, previous vegetation studies of the site suggested that it would be most prudent to attempt bond release for all cells and berms at the same time. Therefore, the two consecutive years required to monitor the vegetation on reclaimed lands for Phase III Bond Release has been conducted; quantitative data recorded in 2006 have been summarized in this report. The 2005 data were summarized and submitted in a similar report last year.

METHODS

Sample Areas

The following sites were sampled on the Cottonwood Mine Old Waste Rock Site:

Cell 1	Berm 1
Cell 2	Berm 2
Cell 3	Berm 3
Cell 4	Berm 4
Cell 5	
Cell 6	CTW Reference Area
Cell 7	

All field work to record cover, frequency, composition, and production for the reclaimed and reference areas was accomplished in August 2006. Woody species density measurements for the areas were recorded in September 2006. Data from each of the above areas were first summed separately to identify differences between sites, but the mean combined totals of all areas were the values used for final bond release comparisons with the reference area. The number of samples taken was a function of both the size of each area and employment sample adequacy formulas. In other words, in larger areas more samples were taken than the smaller areas, but the total number of samples were subject to the rigors of statistical sample adequacy.

Cover, Frequency and Composition

Cover estimates were made using ocular methods with meter square quadrats. Species composition and relative frequencies were also assessed from the quadrats. Additional

information recorded on the raw data sheets were: estimated precipitation, slope, exposure, grazing use, animal disturbance and other appropriate notes. Plant nomenclature follows "A Utah Flora" (Welsh et al. 2003).

Woody Species Density

Density of woody plant species of the reclaimed and reference areas were recorded using a distance method called the point-quarter. In this method, random points were placed on the sample sites and measured into four quarters. The distances to the nearest woody plant species were then recorded in each quarter. The average point-to-individual distance was equal to the square root of the mean area per individual.

Production

Total annual biomass production was estimated by clipping, drying and weighing current annual growth in each sample quadrat. "Double sampling" using four quadrats were estimated around the clipped quadrat. Herbaceous and woody species production were recorded separately.

Diversity

There are several good methods to assess diversity in plant communities. Three diversity indices have been reported in this document for the reclaimed areas and the reference area. To begin,

MacArthur's Diversity Index was calculated. This index is an effective diversity measurement and is computed using the equation $1/\sum pi^2$ (MacArthur and Wilson 1976, *The Theory of Island Biogeography*, Princeton: Princeton University Press). In this equation pi is the proportion of sum frequency contributed by the i th species in the sample area of concern. The proportional contribution of each species is then squared and the values for all species in the sample areas are summed. This index integrates the number of species and the degree to which frequency of occurrence was equitably distributed among those species. In other words, this index provides greater weight to those species that are present more often (with greater frequency) than those that are merely "present" in one or two quadrats. The **average number of species** per sample quadrat is another measure of species diversity provided from the data in this report. Finally, the *total number of species present* in the sample quadrats, or "**Richness**", was calculated for the sample areas.

Sample Sizes

Sample sizes for cover, woody species density and productivity of each area are given below.

Sample Sizes for Vegetation Monitoring in the Old Cottonwood Waste Rock Site (2006)			
Reclaimed Area			
	COVER	DENSITY	PRODUCTION
Cell 1	7	20	15
Cell 2	7	20	15
Cell 3	10	30	20
Cell 4	10	35	25
Cell 5	10	35	25
Cell 6	10	35	25
Cell 7	15	40	30
Berm 1	5	10	5
Berm 2	5	10	5
Berm 3	10	20	10
Berm 4	5	10	5
TOTAL	94	265	180
Reference Area			
	COVER	DENSITY	PRODUCTION
TOTAL	140	90	240

Sample Adequacy & Statistical Comparisons

As recommended by the State of Utah, Department of Natural Resources, Division of Oil, Gas & Mining (DOG M) guidelines, sampling adequacy was calculated. The goal for the parameters of this study was 90% confidence level with a 10% change in mean (one-tailed t-value was used).

The sample adequacy formula used is given below.

$$nMIN = \frac{t^2 s^2}{(dx)^2}$$

where,

nMIN = minimum adequate sample
t = appropriate confidence t-value
s = standard deviation
x = sample mean
d = desired change from mean

Student's t-tests were employed to compare the reclaimed areas with the reference area for living cover, density and productivity. All sample means, standard deviations, and sample sizes were included in this report to enable the reviewers to check or apply further statistical tests if desired.

Photographs

Color photographs of each cell, berm and the reference area were taken during the sample period and have been included with this report.

Raw Data

The raw cover, composition, and frequency data have been summarized on spreadsheets and have been included in the Appendix.

RESULTS

Reclaimed Areas

The mean total living cover for the cells and berms combined was 53.30% (Table 1-A). This living cover was comprised of 50.77% grasses, 42.72% shrubs, and 6.51% forbs (Table 1-B). A total of 16 plant species were present in the sample quadrats (Table 1-C).

The dominant plant species by cover and frequency were fourwing saltbush (*Atriplex canescens*), Indian ricegrass (*Stipa hymenoides*), broom snakeweed (*Gutierrezia sarothrae*), and crested wheatgrass (*Agropyron cristatum*). The cover and frequency values for each species present in the quadrats are shown in Table 2.

The mean total woody species density for the combined cells and berms was estimated at 5,345 individuals per acre (Table 3-A). The density in these areas was dominated by broom snakeweed and fourwing saltbush.

For production of the site, the total annual biomass was estimated at 1,353.31 pounds per acre, 741.44 of which was from the woody component and 611.87 from herbaceous plants (Table 3-B).

Reference Area

The total living cover (overstory plus understory) of the reference area, a pinyon-juniper plant community, was 34.67% (Table 4-A). The overstory and understory cover were nearly equally represented at 16.73% and 17.94%, respectively. The understory cover was comprised of 71.95% woody species and 15.98% forbs (Table 4-B). A total of 12 plant species were present in the sample quadrats (Table 4-C).

As depicted in the cover and frequency values of the reference area, the dominate plant species were pinyon pine (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*). For a list of all species with their cover and frequency values, refer to Table 5.

Woody species density for the reference area was estimated at 1,360 plants per acre and was dominated by the same two species as in the cover measurements above, however, Mormon tea (*Ephedra viridis*) was also an important component here (Table 6-A).

Total annual biomass for the reference area was estimated at 453.41 pounds per acre, nearly all of it consisted of woody species (Table 6-B).

Comparisons Between Areas

Statistical analyses using Student's t-tests were employed to compare the total living cover,

woody species density and productivity of the reclaimed area with the reference area. These parameters are some of the most important subject fields in applying for Phase III Bond Release. For all of these parameters, the reclaimed areas (cells and berms) were significantly greater than the reference area (Table 7).

DISCUSSION

The tables referenced in the RESULTS section above provide a good summary of the quantitative sampling results for the reclaimed cells and berms as well as the reference area chosen for revegetation success standards. Statistical analyses have also been employed to compare the two areas with results strongly suggesting that the reclaimed areas have met specific revegetation standards. The summaries and statistical analyses have reported the data of the reclaimed areas (cells and berms combined) for total living cover, frequency, composition, woody species density, and annual productivity. To provide a visual assessment of the quantitative data at the Old Waste Rock Site, charts graphically illustrate the values of each parameter on a site-by-site basis.

Total Living Cover

The mean combined total living cover of all cells, berms, and reference area have been discussed and compared previously in this report. To provide greater detail and to elaborate on this parameter, a graph comparing the cover of: 1) all cells individually, 2) all cells combined, and 3)

the reference area has been prepared (Fig. 1). As one can note by the graph, each cell exceeds the total living cover of the reference area.

Along this same premise, another graph (Fig. 2) compares the total living cover of: 1) each individual berm, 2) all berms combined, and 3) the reference area. The total living cover of each berm also exceeds that of the reference area.

As reported in previous vegetation monitoring reports, there were isolated areas within some cells (i.e. Cell 6) where the cover was dominated by “weedy” species. Individual sample quadrat testify to this, but because the sample size is so large, it did not affect the final outcome of the sampling. Also worth noting is that due to several consecutive drought years in the area that occurred prior to the 2005 and 2006 sample periods, cover and diversity may have negatively impacted the plant communities of the area. Hopefully, a return to the normal precipitation patterns will also affect the reclaimed land in a more positive way.

Finally, Fig. 3 shows the mean of all cells and berms compared to the reference area. This illustration shows the Phase III Bond Release parameters used in the statistical analyses reported in the RESULTS section of this report.

Woody Species Density

The same areas as explained above for the total living cover have been illustrated graphically for

woody species densities. Consequently, Fig. 4 shows the densities for: 1) all cells individually, 2) all cells combined, and 3) the reference area. Again, each cell exceeds the woody species density of the reference area.

Fig. 5 presents the densities for: 1) each individual berm, 2) all berms combined, and 3) the reference area. The reclaimed berm densities also exceed those of the reference area.

Finally, Fig. 6 shows the densities of all cells and berms combined and compares this value to the reference area, or an illustration that shows the parameters used in the statistical analyses employed in the RESULTS section of this report.

Biomass Production

Similarly, productivity has been compared graphically for each of the cells, berms and reference area. Fig. 7 shows the biomass production of: 1) each cell individually, 2) cells combined, and 4) the reference area.

Fig. 8 shows the same comparisons for each berm, combined berms, and reference area. In both cases, each cell or berm production estimate exceeds that of the reference area. Finally, the production of all cells and berms combined are compared with the reference area in Fig. 9.

Composition

Lifeform composition of the combined total living cover for the reclaimed areas and reference area was described and summarized in the tables of the RESULTS section in this report. Fig. 10 graphically illustrates the proportions of woody, forb and grass species for the reclaimed areas, whereas, Fig. 11 shows these proportions for the reference area.

Species Diversity

Three diversity indices have been used to compare the reclaimed areas with the reference area. They were the following: 1) the Average Number of Species per Quadrat, 2) MacArthur's Index, and 3) Richness. These indices are shown graphically in Fig. 12 and numerically in Fig. 13. The indices suggest that the reclaimed areas are more diverse than the reference area.

SUMMARY & CONCLUSIONS

The appropriate time period required for vegetation establishment on the reclaimed Old Waste Rock Site has passed. This means that an application for *final* or Phase III Bond Release can be submitted to the State of Utah. To receive Phase III Bond Release, the reestablished vegetation of the reclaimed land must meet specific state and federal requirements as specified by the State of Utah, Division of Oil, Gas & Mining. As dictated by the rules, vegetative cover must be "diverse, effective and permanent". Accordingly, there are specific requirements associated with

cover, density, production and diversity of reclaimed lands.

Data summaries from quantitatively monitoring of the reclaimed vegetation of the Cottonwood Mine Old Waste Rock Site along with those of a pinyon-juniper reference area, chosen to provide standards of revegetation success, have been submitted. The total living cover, woody species density, and biomass productivity of the reclaimed areas have been statistically compared to the reference area. Additionally, lifeform composition, species frequency, and diversity have been summarized for comparisons with the reference area. Finally, the data of individual cells and berms were separated and plotted to graphically compare the parameters of each site.

This document reports the results of sampling in Year 2 (2006), or the second of two consecutive years required from quantitatively sampling the plant communities that have become established on the reclaimed areas. Results herein, along with those reported previously for Year 1 (2005), suggest that the Cottonwood Mine Old Waste Rock Site meets or exceeds those revegetation success standards set by the pinyon-juniper reference area.

TABLE 1: Total cover (A), composition (B), and species present (C), summary for the reclaimed cells and berms at Cottonwood Mine's Old Waste Rock Site (2006).

A.

TOTAL COVER	% MEAN COVER
Living Cover	53.30
Litter	14.79
Bareground	11.74
Rock	20.17

STANDARD DEVIATION (s) = 14.32
 SAMPLE SIZE (n) = 94.00
 MINIMUM ADEQUATE SAMPLE (nMIN) = 19.53

B.

COMPOSITION	PERCENT COMPOSITION	STANDARD DEVIATION
Shrubs	42.72	34.21
Forbs	6.51	19.43
Grasses	50.77	33.64

SAMPLE SIZE (n) = 94.00

C.

SPECIES PRESENT

<i>Agropyron cristatum</i>	<i>Elymus spicatus</i>
<i>Atriplex canescens</i>	<i>Ephedra viridis</i>
<i>Atriplex gardneri</i>	<i>Gutierrezia sarothrae</i>
<i>Bromus tectorum</i>	<i>Halogeton glomeratus</i>
<i>Cercocarpus montanus</i>	<i>Hilaria jamesii</i>
<i>Chrysothamnus nauseosus</i>	<i>Malcomia africana</i>
<i>Elymus lanceolatus</i>	<i>Stipa comata</i>
<i>Elymus smithii</i>	<i>Stipa hymenoides</i>

TABLE 2: Cover and frequency values for each plant species in the reclaimed cells and berms at Cottonwood Mine's Old Waste Rock Site (2006).

	MEAN	FREQUENCY
TREES & SHRUBS		
<i>Atriplex canescens</i>	15.43	54.26
<i>Atriplex gardneri</i>	0.21	1.06
<i>Cercocarpus montanus</i>	0.64	2.13
<i>Chrysothamnus nauseosus</i>	1.01	3.19
<i>Ephedra viridis</i>	0.80	3.19
<i>Gutierrezia sarothrae</i>	7.86	55.32
FORBS		
<i>Halogeton glomeratus</i>	0.49	3.19
<i>Malcomia africana</i>	0.11	1.06
GRASSES		
<i>Agropyron cristatum</i>	6.12	38.30
<i>Bromus tectorum</i>	2.71	22.34
<i>Elymus lanceolatus</i>	1.76	14.89
<i>Elymus smithii</i>	2.55	15.96
<i>Elymus spicatus</i>	0.69	5.32
<i>Hilaria jamesii</i>	0.59	4.26
<i>Stipa comata</i>	2.71	10.64
<i>Stipa hymenoides</i>	9.63	35.11

SAMPLE SIZE (n) = 94.00

TABLE 3 : Woody species densities (A) and productivity (B) for the reclaimed cells and berms at Cottonwood Mine's Old Waste Rock Site (2006).

A.

WOODY SPECIES DENSITY	NUMBER/ACRE
<i>Artemisia tridentata</i>	80.68
<i>Atriplex confertifolia</i>	25.21
<i>Atriplex canescens</i>	2092.72
<i>Ceratoides lanata</i>	5.04
<i>Chrysothamnus nauseosus</i>	65.56
<i>Ephedra viridis</i>	216.84
<i>Gutierrezia sarothrae</i>	2854.17
<u><i>Opuntia polyacantha</i></u>	<u>5.04</u>
MEAN TOTAL (\bar{x})	<u>5345.26</u>

STANDARD DEVIATION (s) = 3762.00
 SAMPLE SIZE (n) = 265.00
 MINIMUM ADEQUATE SAMPLE (nMIN) = 134.00

B.

PRODUCTION	POUNDS/ACRE
Herbaceous	611.87
<u>Woody</u>	<u>741.44</u>
MEAN TOTAL (\bar{x})	<u>1353.31</u>

STANDARD DEVIATION (s) = 750.64
 SAMPLE SIZE (n) = 180.00
 MINIMUM ADEQUATE SAMPLE (nMIN) = 83.25

TABLE 4: Total cover (A), composition (B), and species present (C), summary for the CTW Reference Area at Cottonwood Mine's Old Waste Rock Site (2006).

A.

TOTAL COVER	% MEAN COVER
Overstory Cover	16.73
Understory Cover	17.94
Total Living Cover	34.67
Litter	33.27
Bareground	25.55
Rock	23.45

STANDARD DEVIATION (s) = 23.62
 SAMPLE SIZE (n) = 140.00
 MINIMUM ADEQUATE SAMPLE (nMIN) = 125.60

B.

COMPOSITION	PERCENT COMPOSITION	STANDARD DEVIATION
Trees & Shrubs	71.95	44.30
Forbs	15.98	35.89
Grasses	0.00	0.00

SAMPLE SIZE (n) = 140.00

C.

SPECIES PRESENT

Ephedra viridis
Eriogonum bicolor
Euphorbia fendleri
Chamaesyce fendleri
Cercocarpus montanus
Gutierrezia sarothrae
Juniperus osteosperma
Lepidium montanum
Opuntia polyacantha
Penstemon sp.
Pinus edulis
Yucca harrimaniae

TABLE 5 : Cover and frequency values for each plant species in the CTW Reference Area at Cottonwood Mine's Old Waste Rock Site (2006).

	MEAN	FREQUENCY
OVERSTORY		
<i>Juniperus osteosperma</i>	8.50	28.57
<i>Pinus edulis</i>	8.23	26.43
TREES & SHRUBS		
<i>Cercocarpus montanus</i>	1.44	5.71
<i>Ephedra viridis</i>	2.79	12.86
<i>Gutierrezia sarothrae</i>	0.05	0.71
<i>Juniperus osteosperma</i>	4.36	20.00
<i>Opuntia polyacantha</i>	0.19	4.29
<i>Pinus edulis</i>	8.07	35.71
<i>Yucca harrimaniae</i>	0.08	1.43
FORBS		
<i>Eriogonum bicolor</i>	0.39	9.29
<i>Euphorbia fendleri</i>	0.39	9.29
GRASSES		

SAMPLE SIZE (n) =140.00

TABLE 6: Woody species densities (A) and productivity (B) for the CTW Reference Area at Cottonwood Mine's Old Waste Rock Site (2006).

A.

WOODY SPECIES DENSITY	NUMBER/ACRE
<i>Cercocarpus montanus</i>	79.31
<i>Echinocereus whipplei</i>	
<i>Ephedra viridis</i>	241.72
<i>Gutierrezia sarothrae</i>	11.33
<i>Juniperus osteosperma</i>	347.47
<i>Opuntia polyacantha</i>	41.54
<i>Pinus edulis</i>	596.74
<i>Yucca harrimaniae</i>	41.54
MEAN TOTAL (\bar{x})	<u>1359.65</u>

STANDARD DEVIATION (s) = 410.68
 SAMPLE SIZE (n) = 90.00
 MINIMUM ADEQUATE SAMPLE (nMIN) = 24.69

B.

PRODUCTION	POUNDS/ACRE
Herbaceous	1.33
<u>Woody</u>	<u>452.08</u>
MEAN TOTAL (\bar{x})	<u>453.41</u>

STANDARD DEVIATION (s) = 286.65
 SAMPLE SIZE (n) = 240.00
 MINIMUM ADEQUATE SAMPLE (nMIN) = 108.16

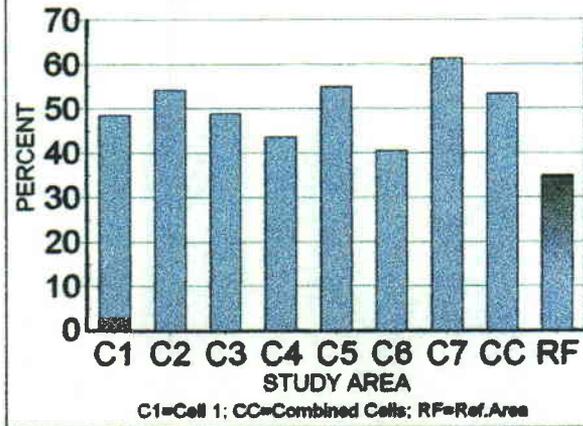
TABLE 7: Statistical summary sheet for the reclaimed cells and berms and the CTW Reference Area at Cottonwood Mine's Old Waste Rock Site (2006).

RECLAIMED AREAS			
Total Living Cover	\bar{x} =53.30	s=14.32	n=94
Density	\bar{x} =5345.26	s=3762.00	n=265
Productivity	\bar{x} =1353.31	s=750.64	n=180
REFERENCE AREA			
Total Living Cover*	\bar{x} =34.67	s=23.62	n=140
Density	\bar{x} =1359.65	s=410.68	n=90
Productivity	\bar{x} =453.41	s=286.65	n=240
STATISTICAL ANALYSES			
Total Living Cover	t=6.846	df=232	SL=p<.001
Density	t=10.012	df=353	SL=p<.001
Productivity	t=16.988	df=418	SL=p<.001

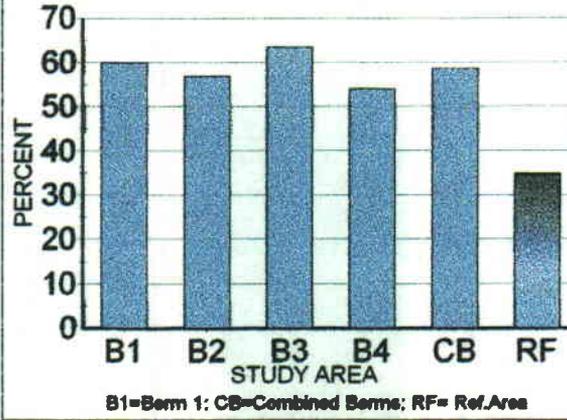
\bar{x} = sample mean,
s = sample standard deviation,
n = sample size,
t = Student's t-value,
p=probability level
df = degrees of freedom,
SL = significance level,
* represents understory and overstory cover combined.

FIGURES

**FIG. 1: LIVING COVER: CELLS & REFERENCE AREA
COTTONWOOD OLD WASTE ROCK SITE (2006)**



**FIG. 2: COVER: BERMS AND REFERENCE AREA
COTTONWOOD OLD WASTE ROCK SITE (2006)**



**FIG. 3: LIVING COVER
COTTONWOOD OLD WASTE: ROCK SITE (2006)**

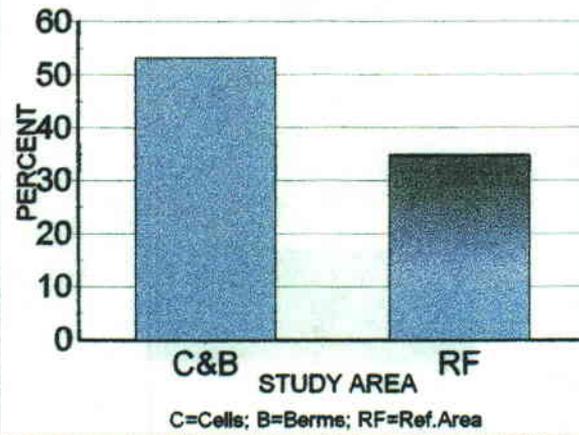


FIG. 4: DENSITY: CELLS & REFERENCE AREA
COTTONWOOD OLD WASTE ROCK SITE (2008)

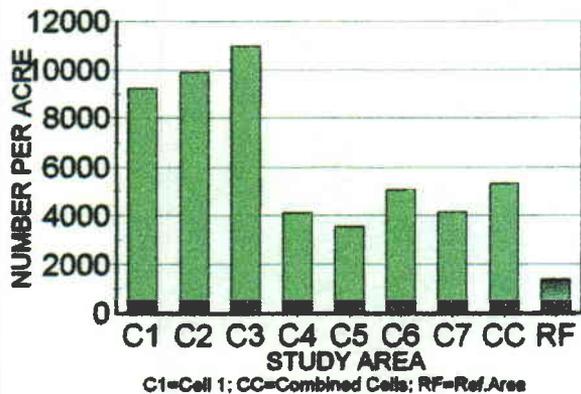


FIG. 5: DENSITY: BERMS & REFERENCE AREA
COTTONWOOD OLD WASTE ROCK SITE (2008)

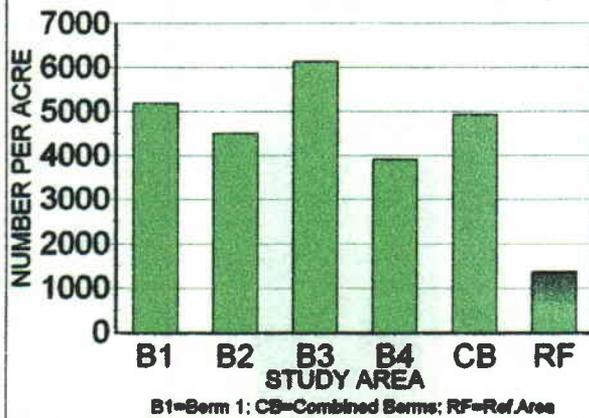
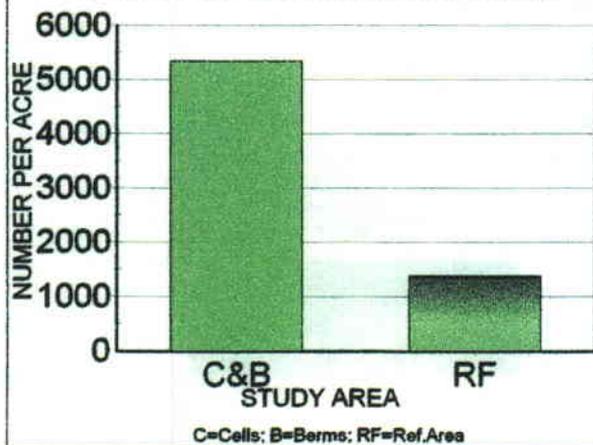
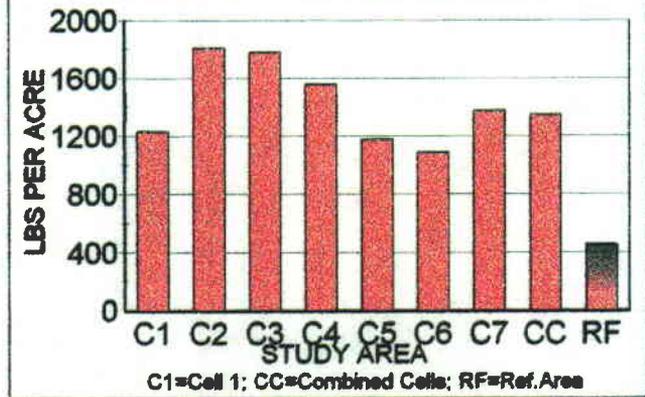


FIG. 6: WOODY SPECIES DENSITY

COTTONWOOD OLD WASTE ROCK SITE (2008)



**FIG. 7: PRODUCTION: CELLS & REFERENCE AREA
COTTONWOOD OLD WASTE ROCK SITE (2006)**



**FIG. 8: PRODUCTION: BERMS AND REFERENCE AREA
COTTONWOOD OLD WASTE ROCK SITE (2006)**

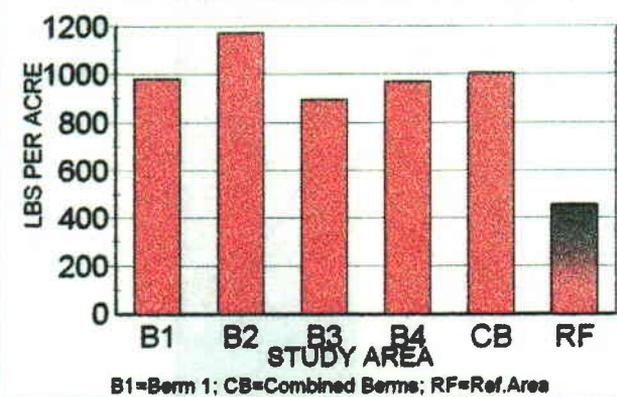
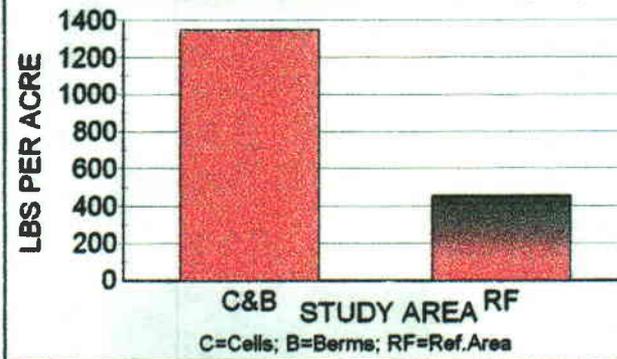
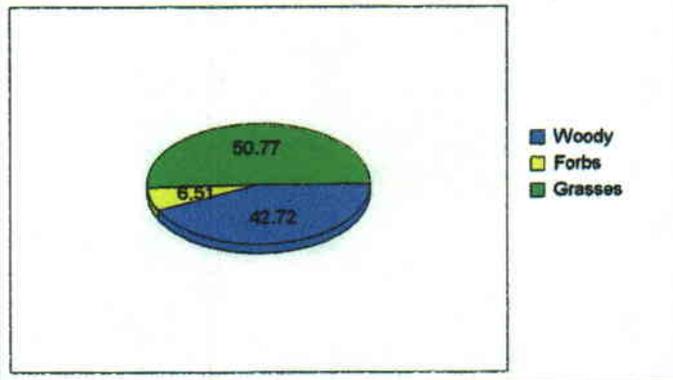


FIG. 9: ANNUAL PRODUCTION

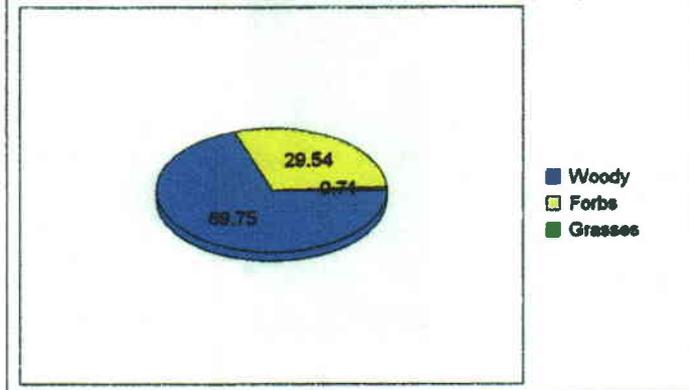
COTTONWOOD OLD WASTE ROCK SITE (2006)



**FIG. 10: COMPOSITION - CELLS & BERMS COMBINED
Cottonwood Old Waste Rock Site (2006)**



**FIG. 11: COMPOSITION - REFERENCE AREA
COTTONWOOD OLD WASTE ROCK SITE (2006)**



**FIG. 12: DIVERSITY
COTTONWOOD WASTE ROCK SITE (2005)**

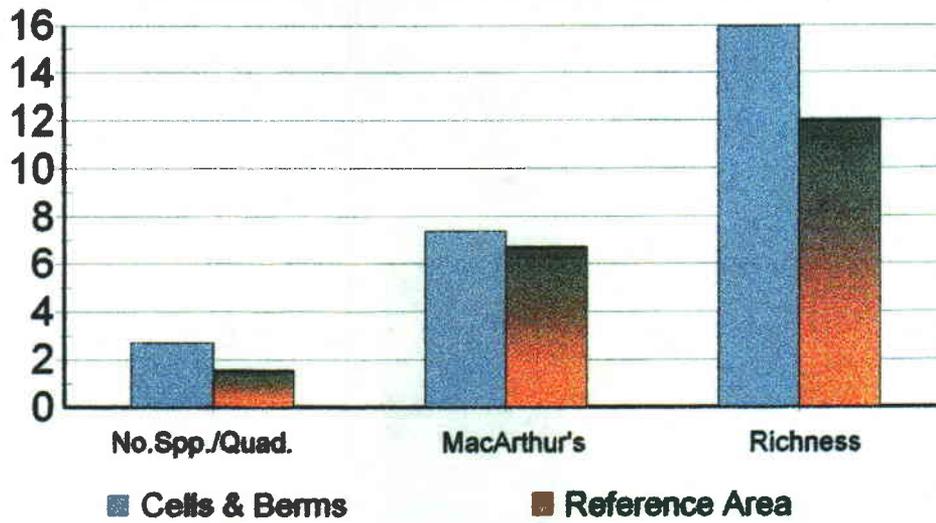


FIG. 13. Diversity at the Cottonwood Mine Old Waste Rock Site (2006)

A.

MacArthur's Index ($1/\sum p^2$) =

Reclaimed Cells & Berms: 7.392

Reference Area: 6.889

B.

Average No. Species/Quadrat =

Reclaimed Cells & Berms: 2.70

Reference Area: 1.54

C.

Richness =

Reclaimed Cells & Berms: 16.0

Reference Area: 12.0

**COLOR PHOTOGRAPHS
OF THE
SAMPLE AREAS**



Cell 1



Cell 2



Cell 3



Cell 4



Cell 5



Cell 6



Cell 7



Berm 1



Berm 2



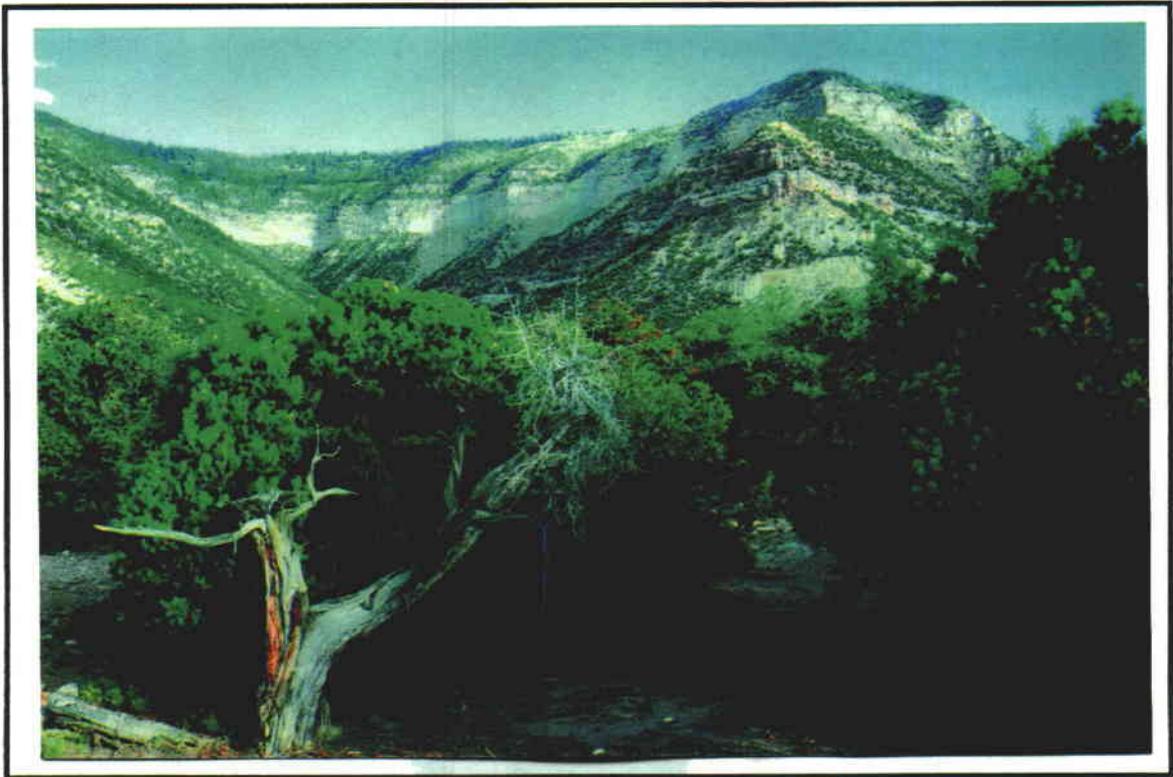
Berm 3 (1 of 2)



Berm 3 (2 of 2)



Berm 4



Pinyon-Juniper CTW Reference Area (1 of 2)



Pinyon-Juniper CTW Reference Area (2 of 2)

APPENDIX

Summarized Raw Data

ENERGY WEST MINING
 Cells & Berms Combined
 Cottonwood Mine Old Waste Rock
 Exposure: E
 Slope: 0 -1 deg.
 Sample Date: 10-12 Aug 2006

Cell 1

	1.00	2.00	3.00	4.00	5.00	6.00	7.00
TREES & SHRUBS							
<i>Atriplex canescens</i>	0.00	15.00	0.00	0.00	0.00	10.00	0.00
<i>Atriplex gardneri</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Cercocarpus montanus</i>	0.00	0.00	0.00	0.00	55.00	0.00	5.00
<i>Chrysothamnus nauseosus</i>	0.00	0.00	0.00	45.00	0.00	10.00	0.00
<i>Ephedra viridis</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Gutierrezia sarothrae</i>	30.00	15.00	30.00	0.00	0.00	5.00	5.00
FORBS							
<i>Halogeton glomeratus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Malcomia africana</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GRASSES							
<i>Agropyron cristatum</i>	0.00	10.00	0.00	0.00	0.00	0.00	0.00
<i>Bromus tectorum</i>	0.00	15.00	15.00	0.00	0.00	0.00	0.00
<i>Elymus lanceolatus</i>	0.00	0.00	10.00	0.00	10.00	5.00	0.00
<i>Elymus smithii</i>	0.00	0.00	0.00	15.00	0.00	0.00	0.00
<i>Elymus spicatus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Hilaria jamesii</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Stipa comata</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Stipa hymenoides</i>	0.00	0.00	0.00	0.00	0.00	5.00	30.00
COVER							
Total Living Cover	30.00	55.00	55.00	60.00	65.00	35.00	40.00
Litter	10.00	30.00	25.00	20.00	10.00	10.00	15.00
Bareground	20.00	5.00	10.00	10.00	15.00	40.00	35.00
Rock	40.00	10.00	10.00	10.00	10.00	15.00	10.00
% COMPOSITION							
Shrubs	100.00	54.55	54.55	75.00	84.62	71.43	25.00
Forbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grasses	0.00	45.45	45.45	25.00	15.38	28.57	75.00

Cell 2

Cell 3

Cell 2							Cell 3		
1.00	2.00	3.00	4.00	5.00	6.00	7.00	1.00	2.00	3.00
40.00	30.00	0.00	20.00	0.00	0.00	0.00	0.00	15.00	25.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	20.00	10.00	20.00	15.00	29.00	30.00	15.00	20.00	15.00
0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.00	0.00	20.00	0.00	40.00	5.00	0.00	0.00	0.00	0.00
0.00	20.00	0.00	10.00	5.00	0.00	0.00	0.00	0.00	0.00
0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	15.00	0.00	0.00	10.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00	10.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	10.00	0.00	5.00	0.00	0.00	0.00	25.00	0.00
70.00	75.00	40.00	50.00	65.00	35.00	45.00	30.00	70.00	50.00
20.00	15.00	40.00	25.00	10.00	5.00	10.00	10.00	5.00	10.00
5.00	5.00	5.00	10.00	15.00	10.00	15.00	15.00	5.00	5.00
5.00	5.00	15.00	15.00	10.00	50.00	30.00	45.00	20.00	35.00
71.43	66.67	25.00	80.00	23.08	82.86	66.67	50.00	50.00	50.00
0.00	0.00	0.00	0.00	0.00	2.86	0.00	0.00	0.00	30.00
28.57	33.33	75.00	20.00	76.92	14.29	33.33	50.00	50.00	20.00

Cell 4

4.00	5.00	6.00	7.00	8.00	9.00	10.00	1.00	2.00	3.00
10.00	0.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.00	25.00	25.00	15.00	0.00	15.00	40.00	0.00	5.00	10.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	0.00	15.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	10.00	5.00	10.00	10.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	15.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	20.00	50.00	0.00	0.00	15.00	40.00
45.00	35.00	50.00	75.00	30.00	65.00	40.00	40.00	35.00	50.00
25.00	40.00	20.00	10.00	25.00	10.00	10.00	10.00	5.00	10.00
5.00	5.00	10.00	5.00	5.00	5.00	30.00	15.00	10.00	35.00
25.00	20.00	20.00	10.00	40.00	20.00	20.00	35.00	50.00	5.00
22.22	0.00	0.00	53.33	0.00	0.00	0.00	0.00	0.00	0.00
44.44	71.43	50.00	20.00	0.00	23.08	100.00	0.00	14.29	20.00
33.33	28.57	50.00	26.67	100.00	76.92	0.00	100.00	85.71	80.00

Cell 5

4.00	5.00	6.00	7.00	8.00	9.00	10.00	1.00	2.00	3.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	20.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	10.00	5.00	0.00	35.00	10.00	0.00	5.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	20.00	0.00	0.00	0.00	0.00	0.00	55.00	0.00	0.00
0.00	25.00	0.00	0.00	30.00	5.00	0.00	0.00	0.00	15.00
0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00
55.00	0.00	15.00	35.00	0.00	0.00	35.00	0.00	0.00	0.00
65.00	45.00	45.00	40.00	30.00	40.00	45.00	55.00	40.00	35.00
10.00	20.00	40.00	5.00	20.00	15.00	5.00	15.00	10.00	15.00
5.00	10.00	10.00	15.00	15.00	20.00	20.00	10.00	15.00	20.00
20.00	25.00	5.00	40.00	35.00	25.00	30.00	20.00	35.00	30.00
0.00	0.00	0.00	12.50	0.00	87.50	22.22	0.00	25.00	57.14
15.38	0.00	22.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84.62	100.00	77.78	87.50	100.00	12.50	77.78	100.00	75.00	42.86

Cell 6

4.00	5.00	6.00	7.00	8.00	9.00	10.00	1.00	2.00	3.00
30.00	25.00	30.00	15.00	60.00	35.00	20.00	0.00	5.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	20.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	40.00	0.00	25.00	5.00	0.00	0.00	20.00	0.00	0.00
0.00	0.00	5.00	10.00	0.00	0.00	0.00	10.00	0.00	10.00
15.00	0.00	10.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	15.00	15.00	0.00	0.00	20.00	0.00	0.00	10.00
75.00	65.00	70.00	65.00	70.00	35.00	40.00	35.00	25.00	50.00
15.00	15.00	20.00	15.00	20.00	40.00	20.00	20.00	10.00	20.00
5.00	10.00	5.00	5.00	5.00	10.00	15.00	10.00	25.00	10.00
5.00	10.00	5.00	15.00	5.00	15.00	25.00	35.00	40.00	20.00
46.67	38.46	42.86	23.08	85.71	100.00	50.00	14.29	20.00	40.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80.00	0.00
53.33	61.54	57.14	76.92	14.29	0.00	50.00	85.71	0.00	60.00

Cell 7

4.00	5.00	6.00	7.00	8.00	9.00	10.00	1.00	2.00	3.00
0.00	25.00	0.00	15.00	30.00	25.00	0.00	0.00	30.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	5.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	30.00
25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	5.00	0.00	5.00	0.00	15.00	0.00	0.00	0.00	0.00
0.00	15.00	25.00	10.00	20.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	5.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	10.00	0.00	60.00	15.00	10.00
25.00	50.00	25.00	35.00	50.00	50.00	60.00	65.00	50.00	40.00
10.00	10.00	10.00	25.00	10.00	10.00	15.00	10.00	20.00	10.00
35.00	10.00	15.00	15.00	10.00	10.00	5.00	10.00	10.00	35.00
30.00	30.00	50.00	25.00	30.00	30.00	20.00	15.00	20.00	15.00
0.00	60.00	0.00	42.86	60.00	50.00	0.00	7.69	60.00	75.00
100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	40.00	100.00	57.14	40.00	50.00	100.00	92.31	40.00	25.00

4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00
15.00	10.00	5.00	15.00	10.00	0.00	0.00	5.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00
0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	5.00	5.00	10.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	10.00	0.00	0.00	0.00	15.00	10.00	5.00	60.00	20.00
50.00	50.00	10.00	40.00	40.00	50.00	45.00	50.00	0.00	40.00
65.00	70.00	60.00	60.00	70.00	65.00	60.00	70.00	70.00	60.00
20.00	10.00	15.00	15.00	10.00	10.00	15.00	10.00	10.00	25.00
5.00	5.00	10.00	10.00	10.00	10.00	10.00	5.00	5.00	5.00
10.00	15.00	15.00	15.00	10.00	15.00	15.00	15.00	15.00	10.00
23.08	14.29	83.33	25.00	14.29	0.00	0.00	14.29	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.92	85.71	16.67	75.00	85.71	100.00	100.00	85.71	100.00	100.00

Berm 1

Berm 2

14.00	15.00	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00
0.00	0.00	60.00	45.00	30.00	20.00	65.00	35.00	5.00	20.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	5.00	10.00	15.00	0.00	0.00	0.00	5.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00
5.00	15.00	0.00	0.00	5.00	10.00	0.00	0.00	60.00	20.00
0.00	0.00	0.00	15.00	10.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	35.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65.00	50.00	60.00	65.00	55.00	55.00	65.00	55.00	65.00	45.00
10.00	30.00	10.00	5.00	10.00	10.00	5.00	10.00	10.00	15.00
10.00	10.00	20.00	5.00	15.00	10.00	5.00	10.00	5.00	10.00
15.00	10.00	10.00	25.00	20.00	25.00	25.00	25.00	20.00	30.00
0.00	0.00	100.00	76.92	72.73	63.64	100.00	100.00	7.69	55.56
0.00	0.00	0.00	0.00	0.00	18.18	0.00	0.00	0.00	0.00
100.00	100.00	0.00	23.08	27.27	18.18	0.00	0.00	92.31	44.44

Berm 3

4.00	5.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00
40.00	30.00	55.00	30.00	0.00	40.00	75.00	60.00	70.00	40.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	65.00	0.00	0.00	0.00	0.00	0.00
5.00	5.00	0.00	5.00	5.00	0.00	0.00	10.00	5.00	10.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.00	20.00	10.00	20.00	0.00	0.00	0.00	0.00	0.00	10.00
0.00	0.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65.00	55.00	65.00	70.00	70.00	55.00	75.00	70.00	75.00	70.00
10.00	10.00	15.00	10.00	15.00	35.00	20.00	10.00	15.00	10.00
10.00	10.00	10.00	10.00	10.00	5.00	4.00	10.00	5.00	10.00
15.00	25.00	10.00	10.00	5.00	5.00	1.00	10.00	5.00	10.00
69.23	63.64	84.62	50.00	100.00	72.73	100.00	100.00	100.00	71.43
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.77	36.36	15.38	50.00	0.00	27.27	0.00	0.00	0.00	28.57

Bern 4

9.00	10.00	1.00	2.00	3.00	4.00	5.00	Mean	SDev	Freq
5.00	35.00	20.00	0.00	0.00	35.00	0.00	15.43	19.33	54.26
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	2.05	1.06
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	5.66	2.13
0.00	0.00	0.00	0.00	0.00	0.00	40.00	1.01	6.21	3.19
0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.80	6.70	3.19
0.00	10.00	20.00	5.00	0.00	0.00	10.00	7.86	10.43	55.32
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	3.27	3.19
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	1.03	1.06
20.00	15.00	20.00	5.00	35.00	10.00	0.00	6.12	10.72	38.30
0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	5.59	22.34
0.00	0.00	0.00	0.00	5.00	0.00	0.00	1.76	6.47	14.89
0.00	0.00	10.00	0.00	0.00	0.00	20.00	2.55	7.39	15.96
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	3.06	5.32
0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.59	2.99	4.26
0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	10.10	10.64
0.00	0.00	0.00	20.00	5.00	0.00	0.00	9.63	16.57	35.11
25.00	60.00	70.00	35.00	50.00	45.00	70.00	53.30	14.32	
5.00	15.00	5.00	15.00	15.00	10.00	5.00	14.79	8.15	
40.00	5.00	5.00	10.00	10.00	15.00	15.00	11.74	8.15	
30.00	20.00	20.00	40.00	25.00	30.00	10.00	20.17	11.55	
20.00	75.00	57.14	14.29	10.00	77.78	71.43	42.72	34.21	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.51	19.43	
80.00	25.00	42.86	85.71	90.00	22.22	28.57	50.77	33.64	

ENERGY WEST MINING
 CTW Reference Area
 Cottonwood Mine Old Waste Rock
 Exposure: E
 Slope: 1 - 5 deg.
 Sample Date: 10-12 Aug 2006

	1.00	2.00	3.00	4.00	5.00	6.00	7.00
OVERSTORY							
<i>Juniperus osteosperma</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Pinus edulis</i>	40.00	0.00	0.00	0.00	0.00	0.00	0.00
UNDERSTORY							
SHRUBS							
<i>Cercocarpus montanus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Ephedra viridis</i>	0.00	0.00	0.00	0.00	0.00	7.00	0.00
<i>Gutierrezia sarothrae</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Juniperus osteosperma</i>	0.00	20.00	0.00	15.00	0.00	0.00	0.00
<i>Opuntia polyacantha</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Pinus edulis</i>	35.00	0.00	7.00	55.00	0.00	0.00	40.00
<i>Yucca harrimaniae</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FORBS							
<i>Eriogonum bicolor</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Euforbia fendleri</i>	0.00	5.00	0.00	0.00	5.00	0.00	0.00
GRASSES							
COVER							
Overstory	40.00	0.00	0.00	0.00	0.00	0.00	0.00
Understory	35.00	25.00	7.00	70.00	5.00	7.00	40.00
Litter	40.00	10.00	15.00	20.00	30.00	53.00	20.00
Bareground	20.00	55.00	25.00	5.00	10.00	10.00	30.00
Rock	5.00	10.00	53.00	5.00	55.00	30.00	10.00
% COMPOSITION							
Shrubs	100.00	80.00	100.00	100.00	0.00	100.00	100.00
Forbs	0.00	20.00	0.00	0.00	100.00	0.00	0.00
Grasses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Overstory + Understory	75.00	25.00	7.00	70.00	5.00	7.00	40.00

8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00
0.00	0.00	20.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	50.00	25.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
40.00	20.00	0.00	25.00	0.00	5.00	0.00	20.00	15.00	50.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	2.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	20.00	0.00	0.00	5.00	0.00	20.00	50.00	25.00
40.00	20.00	2.00	25.00	12.00	5.00	5.00	20.00	15.00	50.00
45.00	10.00	15.00	20.00	10.00	30.00	10.00	55.00	50.00	20.00
5.00	30.00	78.00	35.00	58.00	55.00	65.00	20.00	5.00	25.00
10.00	50.00	5.00	20.00	20.00	10.00	20.00	5.00	30.00	5.00
100.00	100.00	0.00	100.00	100.00	100.00	0.00	100.00	100.00	100.00
0.00	0.00	100.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.00	20.00	22.00	25.00	12.00	10.00	5.00	40.00	65.00	75.00

18.00	19.00	20.00	21.00	22.00	23.00	24.00	25.00	26.00	27.00
0.00	5.00	30.00	0.00	25.00	35.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	35.00	0.00	0.00	0.00	60.00	8.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	0.00	30.00	30.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	15.00	0.00	7.00	35.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
0.00	5.00	30.00	0.00	25.00	35.00	0.00	0.00	0.00	0.00
10.00	5.00	1.00	35.00	3.00	30.00	45.00	60.00	15.00	35.00
14.00	5.00	69.00	20.00	55.00	40.00	20.00	10.00	20.00	10.00
36.00	55.00	10.00	5.00	12.00	10.00	15.00	10.00	45.00	35.00
40.00	35.00	20.00	40.00	30.00	20.00	20.00	20.00	20.00	20.00
100.00	0.00	0.00	100.00	0.00	100.00	100.00	100.00	100.00	100.00
0.00	60.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	10.00	31.00	35.00	28.00	65.00	45.00	60.00	15.00	35.00

28.00	29.00	30.00	31.00	32.00	33.00	34.00	35.00	36.00	37.00
35.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.00
0.00	35.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	10.00	0.00
0.00	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00
35.00	0.00	15.00	0.00	0.00	0.00	5.00	0.00	0.00	30.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00
0.00	30.00	0.00	0.00	15.00	0.00	0.00	35.00	20.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.00	35.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	35.00
35.00	30.00	15.00	5.00	15.00	7.00	35.00	35.00	35.00	30.00
10.00	60.00	50.00	10.00	10.00	20.00	30.00	55.00	40.00	50.00
30.00	5.00	25.00	60.00	45.00	58.00	30.00	5.00	20.00	15.00
25.00	5.00	10.00	25.00	30.00	15.00	5.00	5.00	5.00	5.00
100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00
0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70.00	65.00	15.00	5.00	15.00	7.00	35.00	65.00	35.00	65.00

38.00	39.00	40.00	41.00	42.00	43.00	44.00	45.00	46.00	47.00
40.00	35.00	0.00	20.00	0.00	0.00	15.00	0.00	0.00	0.00
0.00	0.00	0.00	20.00	0.00	20.00	0.00	0.00	40.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.00	35.00	40.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	25.00	0.00	15.00	0.00	4.00	25.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	5.00	0.00	0.00	3.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.00	35.00	0.00	40.00	0.00	20.00	15.00	0.00	40.00	0.00
35.00	35.00	40.00	25.00	5.00	15.00	10.00	7.00	25.00	10.00
35.00	10.00	20.00	50.00	5.00	25.00	15.00	3.00	60.00	25.00
20.00	30.00	15.00	5.00	25.00	10.00	25.00	10.00	5.00	15.00
10.00	25.00	25.00	20.00	65.00	50.00	50.00	80.00	10.00	55.00
100.00	100.00	100.00	100.00	0.00	100.00	100.00	57.14	100.00	100.00
0.00	0.00	0.00	0.00	100.00	0.00	0.00	42.86	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	70.00	40.00	65.00	5.00	35.00	25.00	7.00	65.00	10.00

48.00	49.00	50.00	51.00	52.00	53.00	54.00	55.00	56.00	57.00
15.00	20.00	20.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.00	45.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.00	5.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	40.00	0.00	5.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	5.00	5.00	0.00	0.00	5.00	0.00	5.00
0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00
15.00	20.00	20.00	0.00	5.00	0.00	0.00	35.00	45.00	0.00
30.00	5.00	25.00	5.00	5.00	5.00	70.00	5.00	5.00	5.00
50.00	20.00	55.00	15.00	5.00	20.00	25.00	25.00	85.00	10.00
10.00	50.00	10.00	25.00	70.00	55.00	4.00	20.00	5.00	50.00
10.00	25.00	10.00	55.00	20.00	20.00	1.00	50.00	5.00	35.00
100.00	100.00	100.00	0.00	0.00	0.00	100.00	0.00	100.00	0.00
0.00	0.00	0.00	100.00	100.00	100.00	0.00	100.00	0.00	100.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.00	25.00	45.00	5.00	10.00	5.00	70.00	40.00	50.00	5.00

58.00	59.00	60.00	61.00	62.00	63.00	64.00	65.00	66.00	67.00
0.00	45.00	0.00	35.00	0.00	0.00	0.00	10.00	0.00	15.00
0.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	35.00	0.00	40.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	30.00	0.00	35.00	0.00	25.00	0.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	35.00	0.00	0.00	0.00	0.00	10.00	0.00	25.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	45.00	40.00	35.00	0.00	0.00	0.00	10.00	0.00	15.00
5.00	30.00	35.00	35.00	5.00	25.00	70.00	10.00	40.00	25.00
25.00	55.00	25.00	55.00	5.00	5.00	20.00	60.00	25.00	5.00
60.00	5.00	35.00	5.00	25.00	45.00	5.00	10.00	10.00	10.00
10.00	10.00	5.00	5.00	65.00	25.00	5.00	20.00	25.00	60.00
100.00	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	100.00
0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	75.00	75.00	70.00	5.00	25.00	70.00	20.00	40.00	40.00

68.00	69.00	70.00	71.00	72.00	73.00	74.00	75.00	76.00	77.00
0.00	0.00	65.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00
0.00	0.00	0.00	0.00	35.00	35.00	25.00	15.00	20.00	0.00
0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	10.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00
0.00	0.00	65.00	0.00	35.00	35.00	25.00	15.00	20.00	30.00
5.00	25.00	1.00	10.00	35.00	20.00	1.00	1.00	5.00	1.00
10.00	10.00	84.00	10.00	40.00	55.00	24.00	59.00	20.00	74.00
20.00	10.00	10.00	20.00	5.00	10.00	50.00	10.00	25.00	20.00
65.00	55.00	5.00	60.00	20.00	25.00	25.00	30.00	50.00	5.00
0.00	100.00	0.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	25.00	66.00	10.00	70.00	55.00	26.00	16.00	25.00	31.00

78.00	79.00	80.00	81.00	82.00	83.00	84.00	85.00	86.00	87.00
20.00	25.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	20.00	0.00	0.00	0.00	50.00	20.00	15.00	20.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00
0.00	0.00	40.00	0.00	0.00	7.00	20.00	0.00	40.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00
20.00	25.00	20.00	0.00	25.00	0.00	50.00	20.00	15.00	20.00
1.00	15.00	40.00	5.00	5.00	7.00	20.00	5.00	40.00	1.00
10.00	45.00	20.00	20.00	25.00	68.00	65.00	70.00	45.00	24.00
19.00	10.00	20.00	55.00	45.00	20.00	5.00	10.00	5.00	50.00
70.00	30.00	20.00	20.00	25.00	5.00	10.00	15.00	10.00	25.00
0.00	100.00	100.00	0.00	0.00	100.00	100.00	100.00	100.00	0.00
100.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.00	40.00	60.00	5.00	30.00	7.00	70.00	25.00	55.00	21.00

88.00	89.00	90.00	91.00	92.00	93.00	94.00	95.00	96.00	97.00
0.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00	0.00	0.00
0.00	65.00	25.00	40.00	0.00	0.00	40.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00	35.00
10.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	30.00	10.00	0.00	0.00	0.00	35.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	65.00	25.00	40.00	35.00	0.00	40.00	0.00	0.00	0.00
10.00	1.00	1.00	30.00	10.00	20.00	1.00	7.00	35.00	35.00
15.00	84.00	24.00	60.00	60.00	20.00	89.00	20.00	30.00	10.00
65.00	10.00	25.00	5.00	10.00	35.00	5.00	60.00	25.00	10.00
10.00	5.00	50.00	5.00	20.00	25.00	5.00	13.00	10.00	45.00
100.00	0.00	0.00	100.00	100.00	100.00	0.00	100.00	100.00	100.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	66.00	26.00	70.00	45.00	20.00	41.00	7.00	35.00	35.00

98.00	99.00	100.00	101.00	102.00	103.00	104.00	105.00	106.00	107.00
0.00	15.00	15.00	0.00	0.00	70.00	40.00	0.00	0.00	50.00
35.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.00	0.00	0.00	40.00	0.00	0.00	0.00	5.00	15.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00
35.00	15.00	15.00	0.00	0.00	70.00	40.00	0.00	0.00	50.00
35.00	1.00	5.00	40.00	5.00	1.00	5.00	5.00	15.00	1.00
15.00	84.00	15.00	20.00	10.00	89.00	60.00	25.00	55.00	74.00
40.00	10.00	60.00	35.00	60.00	5.00	15.00	50.00	20.00	20.00
10.00	5.00	20.00	5.00	25.00	5.00	20.00	25.00	10.00	5.00
100.00	0.00	100.00	100.00	0.00	0.00	0.00	100.00	100.00	0.00
0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70.00	16.00	20.00	40.00	5.00	71.00	45.00	5.00	15.00	51.00

108.00	109.00	110.00	111.00	112.00	113.00	114.00	115.00	116.00	117.00
35.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00	35.00	0.00
0.00	20.00	0.00	0.00	50.00	25.00	0.00	0.00	0.00	35.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00	20.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.00	0.00	0.00	30.00	10.00	0.00	0.00	20.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	5.00	0.00	5.00	0.00	0.00	0.00	0.00
35.00	20.00	0.00	0.00	50.00	25.00	0.00	40.00	35.00	35.00
35.00	20.00	10.00	5.00	1.00	35.00	10.00	30.00	20.00	35.00
55.00	25.00	10.00	10.00	89.00	30.00	25.00	60.00	55.00	55.00
5.00	45.00	70.00	60.00	5.00	25.00	35.00	5.00	10.00	5.00
5.00	10.00	10.00	25.00	5.00	10.00	30.00	5.00	15.00	5.00
100.00	100.00	50.00	0.00	0.00	85.71	100.00	100.00	100.00	100.00
0.00	0.00	0.00	100.00	0.00	14.29	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70.00	40.00	10.00	5.00	51.00	60.00	10.00	70.00	55.00	70.00

118.00	119.00	120.00	121.00	122.00	123.00	124.00	125.00	126.00	127.00
50.00	0.00	25.00	25.00	0.00	0.00	0.00	60.00	30.00	35.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	0.00	5.00	0.00	0.00	25.00	0.00	10.00	10.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00
50.00	0.00	25.00	25.00	0.00	0.00	0.00	60.00	30.00	35.00
5.00	5.00	5.00	1.00	10.00	25.00	5.00	10.00	10.00	1.00
80.00	20.00	85.00	24.00	85.00	15.00	30.00	30.00	20.00	25.00
10.00	15.00	5.00	70.00	4.00	15.00	20.00	55.00	40.00	49.00
5.00	60.00	5.00	5.00	1.00	45.00	45.00	5.00	30.00	25.00
100.00	100.00	100.00	0.00	100.00	100.00	0.00	100.00	100.00	100.00
0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55.00	5.00	30.00	26.00	10.00	25.00	5.00	70.00	40.00	36.00

128.00	129.00	130.00	131.00	132.00	133.00	134.00	135.00	136.00	137.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	35.00	0.00	0.00	15.00	7.00	5.00	0.00	0.00	0.00
0.00	0.00	20.00	45.00	0.00	0.00	0.00	0.00	5.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00
15.00	15.00	0.00	0.00	20.00	0.00	0.00	15.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
0.00	35.00	0.00	0.00	15.00	7.00	5.00	0.00	0.00	0.00
15.00	15.00	20.00	45.00	20.00	1.00	1.00	15.00	5.00	5.00
25.00	50.00	10.00	20.00	15.00	10.00	24.00	25.00	5.00	10.00
35.00	10.00	20.00	5.00	5.00	15.00	50.00	35.00	15.00	60.00
25.00	25.00	50.00	30.00	60.00	74.00	25.00	25.00	75.00	25.00
100.00	100.00	100.00	100.00	100.00	0.00	0.00	100.00	100.00	100.00
0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	50.00	20.00	45.00	35.00	8.00	6.00	15.00	5.00	5.00

ENERGY WEST MINING
 CTW Reference Area
 Cottonwood Mine Old Waste Rock
 Exposure: E
 Slope: 1 - 5 deg.
 Sample Date: 10-12 Aug 2006

138.00	139.00	140.00	Mean	SDev	Freq	
						OVERSTORY
0.00	0.00	0.00	8.50	15.72	28.57	<i>Juniperus osteosperma</i>
40.00	50.00	0.00	8.23	15.21	26.43	<i>Pinus edulis</i>
						UNDERSTORY
						SHRUBS
0.00	0.00	0.00	1.44	6.80	5.71	<i>Cercocarpus montanus</i>
10.00	10.00	25.00	2.79	8.66	12.86	<i>Ephedra viridis</i>
0.00	0.00	0.00	0.05	0.59	0.71	<i>Gutierrezia sarothrae</i>
0.00	0.00	0.00	4.36	10.07	20.00	<i>Juniperus osteosperma</i>
0.00	0.00	0.00	0.19	0.94	4.29	<i>Opuntia polyacantha</i>
20.00	10.00	0.00	8.07	13.21	35.71	<i>Pinus edulis</i>
0.00	0.00	0.00	0.08	0.85	1.43	<i>Yucca harrimaniae</i>
						FORBS
0.00	0.00	0.00	0.39	1.27	9.29	<i>Eriogonum bicolor</i>
0.00	0.00	0.00	0.39	1.31	9.29	<i>Euphorbia fendleri</i>
						GRASSES
						COVER
40.00	50.00	0.00	16.73	18.55		Overstory
30.00	20.00	25.00	17.94	15.85		Understory
65.00	25.00	20.00	33.27	23.47		Litter
4.00	30.00	35.00	25.55	19.74		Bareground
1.00	25.00	20.00	23.45	18.92		Rock
						% COMPOSITION
100.00	100.00	100.00	71.95	44.30		Shrubs
0.00	0.00	0.00	15.98	35.89		Forbs
0.00	0.00	0.00	0.00	0.00		Grasses
70.00	70.00	25.00	34.67	23.62		Overstory + Understory

APPENDIX C

Legal Financial, Compliance and Related Information

Annual Report of Officers
As submitted to the Utah Department of Commerce

Other change in ownership and control information
As required under R645-301-110

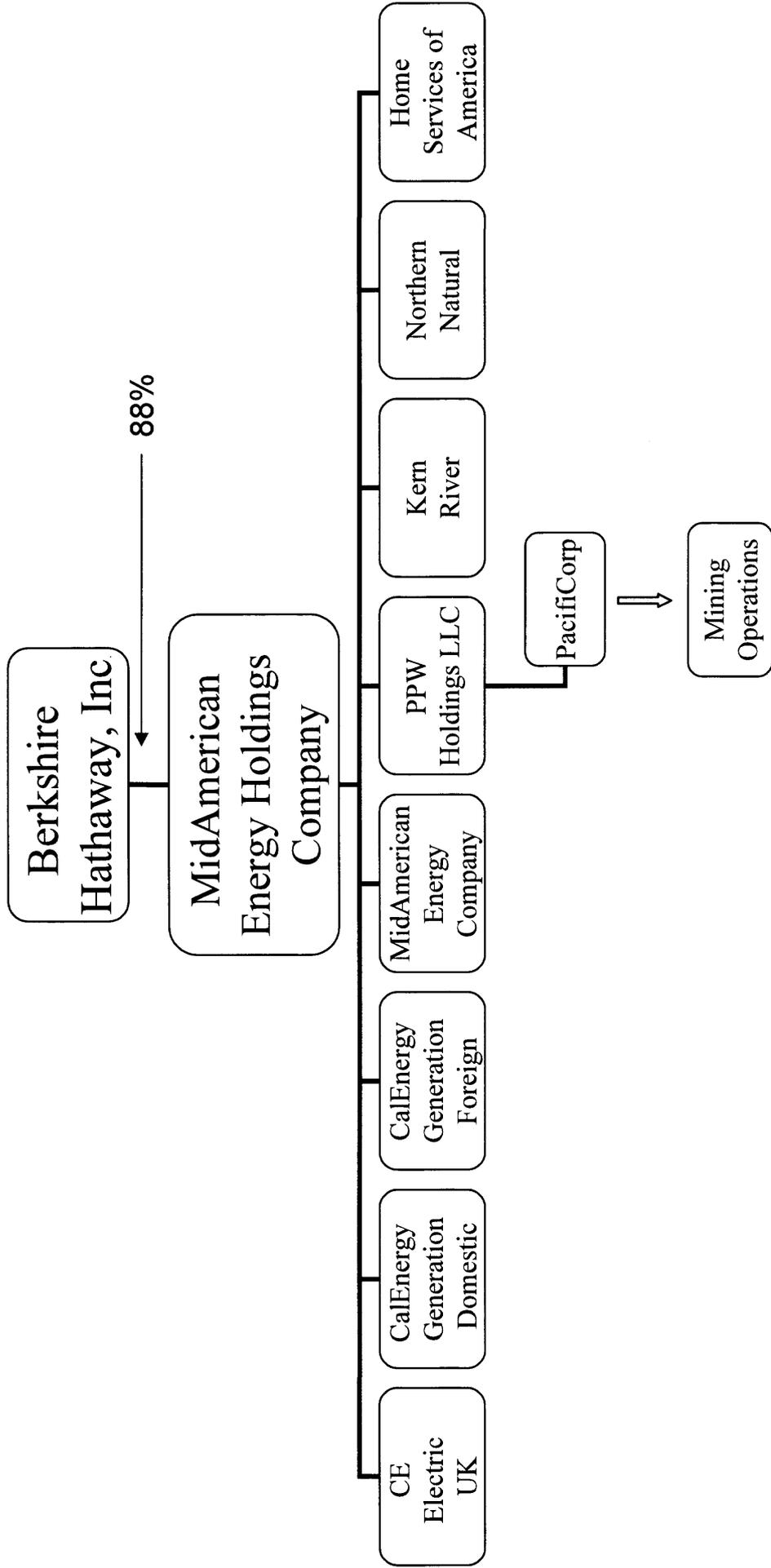
CONTENTS

Updated listing of Officers and Directors

Corporate Structure

(As of June 16, 2006)

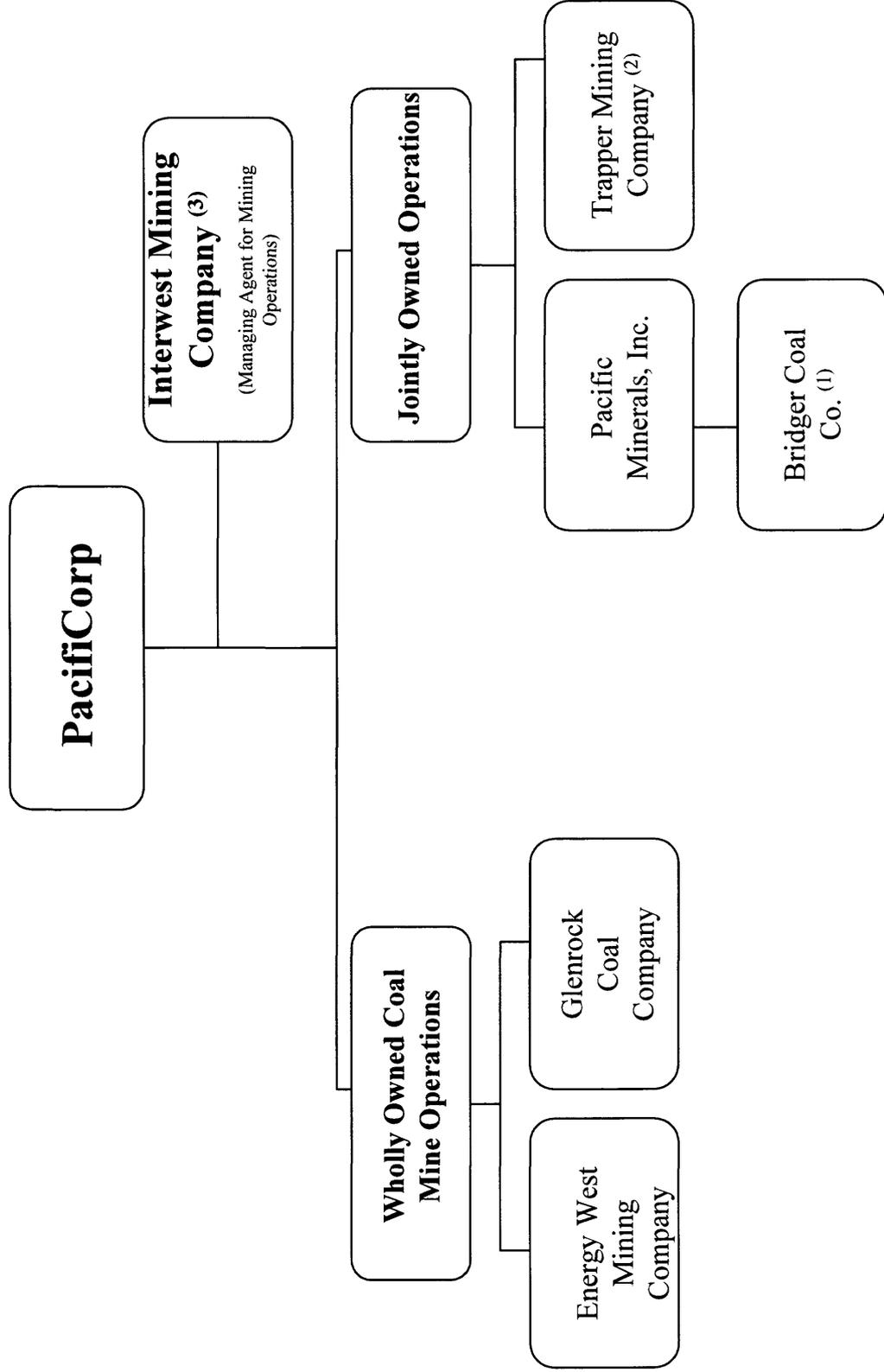
Unless otherwise noted, ownership is 100%



PacifiCorp's Mining Operations

(As of June 16, 2006)

Unless otherwise noted below, ownership is 100%



(1) Bridger Coal Co. is jointly owned 2/3 by Pacific Minerals, Inc., a subsidiary of PacifiCorp; and 1/3 by Idaho Energy Resources Company, a subsidiary of Idaho Power Company.

(2) PacifiCorp owns a 21.40% interest in Trapper Mines, Inc., which is operated by Trapper Mining, Inc., a Delaware non-stock corporation.

(3) Interwest Mining Company is a wholly owned subsidiary of PacifiCorp that provides management and technical support services to the mining companies with no ownership interest.

BERKSHIRE HATHAWAY, INC.
OFFICERS AND DIRECTORS
(As of June 16, 2006)

The directors and officers are as follows:

Name	Position	Address	Effective Date* or Election Date
Warren E. Buffett	Chairman of the Board Chief Executive Officer	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Charles T. Munger	Vice Chairman of the Board of Directors	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Marc D. Hamburg	Vice President, Principal Financial Officer	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Daniel J. Jaksich	Controller	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Howard G. Buffett	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Malcolm G. Chace	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
William H. Gates, III	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
David S. Gottesman	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

BERKSHIRE HATHAWAY, INC.
OFFICERS AND DIRECTORS
(As of June 16, 2006)

The directors and officers are as follows:

Name	Position	Address	Effective Date* or Election Date
Charlotte Guyman	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Donald R. Keough	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Thomas S. Murphy	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Ronald L. Olson	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Walter Scott, Jr.	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

MIDAMERICAN ENERGY HOLDINGS COMPANY
SUMMARY OF OFFICERS
(As of December 1, 2006)

The summary of officers are as follows:

Name	Title	Effective Date* or Election Date	Departure Date
David L. Sokol	Chairman and Chief Executive Officer	March 21, 2006	Current
Gregory E. Abel	President and Chief Operating Officer	March 21, 2006	Current
Douglas L. Anderson	Senior Vice President, General Counsel and Corporate Secretary	March 21, 2006	Current
Patrick J. Goodman	Senior Vice President and Chief Financial Officer	March 21, 2006	Current
John "Jack" Diesing, Jr.	Senior Vice President	March 21, 2006	Current
William J. Fehrman	Senior Vice President	April 1, 2006	Current
Brent E. Gale	Senior Vice President	March 21, 2006	Current

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

MIDAMERICAN ENERGY HOLDINGS COMPANY
SUMMARY OF OFFICERS
(As of December 1, 2006)

The summary of officers are as follows:

Name	Title	Effective Date* or Election Date	Departure Date
Keith D. Hartje	Senior Vice President	March 21, 2006	Current
Mark C. Moench	Senior Vice President	March 21, 2006	March 21, 2006
Maureen E. Sammon	Senior Vice President	March 21, 2006	Current
Steven R. Evans	Vice President	March 21, 2006	Current
Brian K. Hankel	Vice President and Treasurer	March 21, 2006	Current
Wayne F. Irmiter	Vice President and Controller	March 21, 2006	Current
Paul J. Leighton	Vice President	March 21, 2006	Current

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

MIDAMERICAN ENERGY HOLDINGS COMPANY
SUMMARY OF OFFICERS
(As of December 1, 2006)

The summary of officers are as follows:

Name	Title	Effective Date* or Election Date	Departure Date
Jonathan M. Weisgall	Vice President	March 21, 2006	Current
Russell H. White	Vice President	March 21, 2006	Current
Cathy S. Woollums	Vice President	March 21, 2006	Current

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

MIDAMERICAN ENERGY HOLDINGS COMPANY
DIRECTORS

(As of June 16, 2006)

The directors are as follows:

Name	Position	Address and Telephone Number	Effective Date* or Election Date
Gregory E. Abel	Director	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	March 21, 2006
Warren E. Buffett	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Marc D. Hamburg	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
Walter Scott, Jr.	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	March 21, 2006
David L. Sokol	Director	302 So. 36 th Street, Suite 400 Omaha, Nebraska 68131 (402) 341-4500	March 21, 2006

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

PPW HOLDINGS LLC
OFFICERS
(As of December 1, 2006)

The officers are as follows:

Name	Position	Address and Telephone Number	Effective Date* or Election Date
Gregory E. Abel	President	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	May 23, 2005
Steven R. Evans	Vice President Taxation	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	May 18, 2006
Brian K. Hankel	Vice President and Treasurer	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	May 23, 2005
Wayne F. Irmiter	Vice President and Controller	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	May 18, 2006
Mitchell F. Ludwin	Vice President and Secretary	302 South 36 th Street Omaha, Nebraska 68131 (402) 231-1587	May 18, 2006
James C. Galt	Assistant Treasurer	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	May 18, 2006

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

PACIFICORP
OFFICERS
(As of December 1, 2006)

The officers are as follows:

Name	Position	Address and Telephone Number	Effective Date* or Election Date
Gregory E. Abel	Chairman of Board and Chief Executive Officer	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	March 21, 2006
William J. Fehrman	President, PacifiCorp Energy	1407 West North Temple Suite 320 Salt Lake City, Utah 84116 (801) 220-2000	March 21, 2006
A. Richard Walje	President, Rocky Mountain Power	201 So. Main Street Suite 2400 Salt Lake City, UT 84111 (801) 220-2000	March 21, 2006
Patrick J. Reiten	President, Pacific Power	825 NE Multnomah Suite 1900 Portland, OR 97232 (503) 813-5000	September 15, 2006
Stan K. Watters	Senior Vice President President, Pacific Power	825 NE Multnomah Suite 2000 Portland, OR 97232 (503) 813-5000	September 15, 2006 March 21, 2006
Andrew P. Haller	Senior Vice President General Counsel Secretary	825 NE Multnomah Suite 2000 Portland, OR 97232 (503) 813-5000	June 4, 2001 December 11, 2000 December 11, 2000
Bruce N. Williams	Vice President Treasurer	825 NE Multnomah Suite 1900 Portland, OR 97232 (503) 813-5000	May 17, 2006 February 16, 2000

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

PACIFICORP
DIRECTORS
(As of December 1, 2006)

The directors are as follows:

Name	Position	Address and Telephone Number	Effective Date* or Election Date
Gregory E. Abel	Director	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	March 21, 2006
Douglas L. Anderson	Director	302 South 36 th Street Omaha, Nebraska 68131 (402) 231-1642	March 21, 2006
William J. Fehrman	Director	1407 West North Temple, Suite 320 Salt Lake City, Utah 84116 (801) 220-2000	March 21, 2006
Brent E. Gale	Director	825 NE Multnomah, Suite 2000 Portland, Oregon 97232 (503) 813-5000	March 21, 2006
Patrick J. Goodman	Director	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	March 21, 2006
Andrew P. Haller	Director	825 NE Multnomah, Suite 2000 Portland, Oregon 97232 (503) 813-5000	March 21, 2006
Nolan E. Karras	Director	4695 South 1900 West, #3 Roy, Utah 84067 (801) 825-3000	February 17, 1993
A. Robert Lasich	Director	1407 West North Temple, Suite 320 Salt Lake City, Utah 84116 (801) 220-2000	March 21, 2006
Mark Moench	Director	201 So. Main St., Suite 2400 Salt Lake City, UT 84111 (801) 220-2000	March 21, 2006
Patrick J. Reiten	Director	825 NE Multnomah, Suite 2000 Portland, Oregon 97232 (503) 813-5000	September 15, 2006

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

PACIFICORP
DIRECTORS
(As of December 1, 2006)

The directors are as follows:

Name	Position	Address and Telephone Number	Effective Date* or Election Date
A. Richard Walje	Director	201 So. Main St., Suite 2400 Salt Lake City, UT 84111 (801) 220-2000	July 2, 2001
Stan K. Watters	Director	825 NE Multnomah, Suite 2000 Portland, Oregon 97232 (503) 813-5000	March 21, 2006

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

**ENERGY WEST MINING COMPANY
OFFICERS**

(As of December 1, 2006)

The officers are as follows:

Name	Position	Address and Telephone Number	Date Elected
Neil L. Getzelman	President	1407 W. North Temple Suite 310 Salt Lake City, Utah 84116 (801) 220-2000	December 1, 2006
A. Robert Lasich	Vice President, General Counsel and Secretary	1407 W. North Temple Suite 320 Salt Lake City, Utah 84116 (801) 220-2000	December 1, 2006
Jeffery B. Erb	Assistant Secretary	825 NE Multnomah Suite 1800 Portland, Oregon 97232 (503) 813-5000	October 1, 2002
Bruce N. Williams	Treasurer	825 NE Multnomah Suite 1900 Portland, Oregon 97232 (503) 813-5000	December 1, 1992
Tanya S. Sacks	Assistant Treasurer	825 NE Multnomah Suite 1900 Portland, Oregon 97232 (503) 813-5000	February 1, 2001

ENERGY WEST MINING COMPANY
DIRECTORS

(As of December 1, 2006)

The directors are as follows:

Name	Position	Address and Telephone Number	Date Elected
Neil L. Getzelman	Director	1407 W. North Temple Suite 310 Salt Lake City, Utah 84116 (801) 220-2000	November 30, 2006

BERKSHIRE HATHAWAY, INC.
SUMMARY OF OFFICERS AND DIRECTORS
(As of June 16, 2006)

The summary of officers and directors are as follows:

Name	Title	Effective Date* or Election Date	Departure Date
Warren E. Buffett	Chairman of the Board Chief Executive Officer	March 21, 2006	Current
Charles T. Munger	Vice Chairman of the Board of Directors	March 21, 2006	Current
Marc D. Hamburg	Vice President, Principal Financial Officer	March 21, 2006	Current
Daniel J. Jaksich	Controller	March 21, 2006	Current
Howard G. Buffett	Director	March 21, 2006	Current
Malcolm G. Chace	Director	March 21, 2006	Current
William H. Gates, III	Director	March 21, 2006	Current
David S. Gottesman	Director	March 21, 2006	Current
Charlotte Guyman	Director	March 21, 2006	Current
Donald R. Keough	Director	March 21, 2006	Current
Thomas S. Murphy	Director	March 21, 2006	Current

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

BERKSHIRE HATHAWAY, INC.
SUMMARY OF OFFICERS AND DIRECTORS
(As of June 16, 2006)

The summary of officers and directors are as follows:

Name	Title	Effective Date* or Election Date	Departure Date
Ronald L. Olson	Director	March 21, 2006	Current
Walter Scott, Jr.	Director	March 21, 2006	Current

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

MIDAMERICAN ENERGY HOLDINGS COMPANY
SUMMARY OF OFFICERS
(As of December 1, 2006)

The summary of officers are as follows:

Name	Title	Effective Date* or Election Date	Departure Date
David L. Sokol	Chairman and Chief Executive Officer	March 21, 2006	Current
Gregory E. Abel	President and Chief Operating Officer	March 21, 2006	Current
Douglas L. Anderson	Senior Vice President, General Counsel and Corporate Secretary	March 21, 2006	Current
Patrick J. Goodman	Senior Vice President and Chief Financial Officer	March 21, 2006	Current
John "Jack" Diesing, Jr.	Senior Vice President	March 21, 2006	Current
William J. Fehrman	Senior Vice President	April 1, 2006	Current
Brent E. Gale	Senior Vice President	March 21, 2006	Current

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

MIDAMERICAN ENERGY HOLDINGS COMPANY
SUMMARY OF OFFICERS
(As of December 1, 2006)

The summary of officers are as follows:

Name	Title	Effective Date* or Election Date	Departure Date
Keith D. Hartje	Senior Vice President	March 21, 2006	Current
Mark C. Moench	Senior Vice President	March 21, 2006	March 21, 2006
Maureen E. Sammon	Senior Vice President	March 21, 2006	Current
Steven R. Evans	Vice President	March 21, 2006	Current
Brian K. Hankel	Vice President and Treasurer	March 21, 2006	Current
Wayne F. Irmiter	Vice President and Controller	March 21, 2006	Current
Paul J. Leighton	Vice President	March 21, 2006	Current

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

MIDAMERICAN ENERGY HOLDINGS COMPANY
SUMMARY OF OFFICERS
(As of December 1, 2006)

The summary of officers are as follows:

Name	Title	Effective Date* or Election Date	Departure Date
Jonathan M. Weisgall	Vice President	March 21, 2006	Current
Russell H. White	Vice President	March 21, 2006	Current
Cathy S. Woollums	Vice President	March 21, 2006	Current

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

MIDAMERICAN ENERGY HOLDINGS COMPANY
SUMMARY OF DIRECTORS

(As of June 16, 2006)

The summary of directors are as follows:

Name	Effective Date* or Election Date	Departure Date
Gregory E. Abel	March 21, 2006	Current
Warren E. Buffett	March 21, 2006	Current
Marc D. Hamburg	March 21, 2006	Current
Walter Scott, Jr.	March 21, 2006	Current
David L. Sokol	March 21, 2006	Current

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

PPW HOLDINGS LLC
SUMMARY OF OFFICERS
(As of December 1, 2006)

The summary of officers are as follows:

Name	Title	Effective Date* or Election Date	Departure Date
Gregory E. Abel	President	May 23, 2005	Current
Steven R. Evans	Vice President Taxation	May 18, 2006	Current
Brian K. Hankel	Vice President and Treasurer	May 23, 2005	Current
Wayne F. Irmiter	Vice President and Controller	May 18, 2006	Current
Mitchell F. Ludwin	Vice President and Secretary	May 18, 2006	Current
James C. Galt	Assistant Treasurer	May 18, 2006	Current

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

PACIFICORP
SUMMARY OF OFFICERS
(As of December 1, 2006)

The summary of officers are as follows:

Name	Election Date	Departure Date
Gregory E. Abel	March 21, 2006	Current
Karen K. Clark	January 2000	May 2000 September 2001
Barry G. Cunningham	February 11, 2002 May 11, 1999	May 23, 2006
Anne E. Eakin	February 1997	July 2001
Jeffery B. Erb	March 13, 2002	May 17, 2006
William J. Fehrman	March 21, 2006	Current
Donald A. Furman	July 2, 2001 May 1997 February 1997	June 3, 2005
Andrew P. Haller	June 4, 2001 December 11, 2000	Current
Terry F. Hudgens	April 2000	June 2001
Geoffrey (Jeff) O. Huggins	October 2001	August 12, 2002
Michael G. Jenkins	June 2001 May 12, 1999	May 17, 2006
Judith A. Johansen	June 4, 2001 December 2000	March 20, 2006
Robert A. Klein	August 6, 2001	December 26, 2005
Douglas A. Kusyk	April 1, 2005	May 17, 2006
William D. Landels	November 1999	March 31, 2004
Jeffery K. Larsen	August 22, 2002	September 10, 2004

PACIFICORP
SUMMARY OF OFFICERS
(As of December 1, 2006)

The summary of officers are as follows:

Name	Election Date	Departure Date
Donald (Doug) Larson	July 2, 2001	May 17, 2006
Craig N. Longfield	May 1999	February 2001
Andrew N. MacRitchie	June 4, 2001 May 2000	March 20, 2006 June 4, 2001
Larry O. Martin	June 2001	May 17, 2006
Keith R. McKennon	February 1994	August 2001
Timothy E. Meier	September 1997	March 2001
C. Alex Miller	August 1999 (November 1999)	February 2001
Robert A. Moir	May 2000	March 31, 2004
Richard D. Peach	August 22, 2006 March 21, 2006 January 1, 2003	November 22, 2006
Michael J. Pittman	May 19, 1993	July 7, 2005
Patrick J. Reiten	September 15, 2006	Current
Alan V. Richardson	November 1999	December 2001
Sir Ian Robinson	November 1999	January 2001
Tanya S. Sacks	June 4, 2001	May 17, 2006
Alexander D. Tait	June 2001	April 1, 2004
A. Richard Walje	March 21, 2006 April 1, 2004 June 4, 2001 November 1998	Current

PACIFICORP
SUMMARY OF OFFICERS
(As of December 1, 2006)

The summary of officers are as follows:

Name	Election Date	Departure Date
Stan K. Watters	September 15, 2006 March 21, 2006 June 3, 2003 August 2001	Current September 15, 2006 March 20, 2006 June 3, 2003
Ernest E. Wessman	March 21, 2006 May 19, 1993	May 17, 2006
Bruce N. Williams	February 16, 2000 August 1990	Current
Matthew R. Wright	January 1, 2002 May 2000	March 20, 2006

PACIFICORP
SUMMARY OF DIRECTORS
(As of December 1, 2006)

The summary of directors are as follows:

Name	Election Date	Departure Date
Gregory E. Abel	March 21, 2006	Current
Douglas L. Anderson	March 21, 2006	Current
Karen K. Clark	January 2000	September 2001
Barry C. Cunningham	April 2002	March 20, 2006
Stephen Dunn	November 2005	March 20, 2006
William J. Fehrman	March 21, 2006	Current
Brent E. Gale	March 21, 2006	Current
Patrick J. Goodman	March 21, 2006	Current
Andrew P. Haller	May 2003	Current
Terry F. Hudgens	May 2000	June 2001
Judith A. Johansen	December 2000 (January 2000)	March 20, 2006
Nolan E. Karras	February 1993	Current

PACIFICORP
SUMMARY OF DIRECTORS
(As of December 1, 2006)

The summary of directors are as follows:

Name	Election Date	Departure Date
William D. Landels	November 1999	March 31, 2004
A. Robert Lasich	March 21, 2006	Current
Andrew N. MacRitchie	May 2000	March 20, 2006
Keith R. McKennon	November 1990	August 2001
Timothy E. Meier	May 2000	March 2001
Robert G. Miller	August 1994	August 2001
Mark Moench	March 21, 2006	Current
Richard D. Peach	May 2003	November 22, 2006
Michael J. Pittman	May 2000	July 2005
Alan V. Richardson	November 1999	December 2001
Sir Ian Robinson	November 1999	January 2001
Ian M. Russell	November 1999 January 2002	June 2001 January 16, 2006

PACIFICORP
SUMMARY OF DIRECTORS
(As of December 1, 2006)

The summary of directors are as follows:

Name	Election Date	Departure Date
Kenneth L. Vowles	November 1999	March 2002
A. Richard Walje	July 2001	Current
Stan K. Watters	March 21, 2006	Current
Matthew R. Wright	July 2001	March 20, 2006
Patrick J. Reiten	September 15, 2006	Current

ENERGY WEST MINING COMPANY
SUMMARY OF OFFICERS
(As of December 1, 2006)

The officers are as follows:

Name	Title	Election Date	Departure Date
Neil L. Getzelman	President	December 1, 2006	Current
Dee W. Jense	President	October 2000	November 30, 2006
A. Robert Lasich	Vice President, General Counsel and Secretary	December 1, 2006	Current
Andrew P. Haller	Senior Vice President, General Counsel and Secretary	February 2001	November 30, 2006
Robert P. King	Vice President	February 2001	August 15, 2006
Larry O. Martin	Assistant Secretary	February 2001	June 16, 2006
Jeffery B. Erb	Assistant Secretary	October 2000	Current
Bruce N. Williams	Treasurer	December 1992	Current
Tanya S. Sacks	Assistant Treasurer	February 2001	Current
Robert R. Dalley	Secretary	October 2000	February 2001
George C. Schreck	Assistant Secretary	October 2000	February 2001

ENERGY WEST MINING COMPANY
SUMMARY OF DIRECTORS
(As of December 1, 2006)

The summary of directors are as follows:

Name	Election Date	Departure Date
Neil L. Getzelman	December 1, 2006	Current
Terry F. Hudgens	October 2000	September 2001
Dee W. Jense	August 1993	November 30, 2006
Judith A. Johansen	September 2001	October 2002
Robert P. King	July 1999	August 15, 2006