

PACIFICORP ENERGY WEST MINING COMPANY ANNUAL REPORTS - 1992

PACIFICORP

ENERGY WEST MINING COMPANY

ANNUAL REPORTS

1992

DEER CREEK MINE ACT/015/018

COTTONWOOD/WILBERG MINE ACT/015/019

DES BEE DOVE MINE ACT/015/017

TRAIL MOUNTAIN MINE ACT/015/009

RECEIVED

APR 05 1993

DIVISION OF
OIL GAS & MINING

PACIFICORP

ENERGY WEST MINING COMPANY

ANNUAL REPORTS

1992

DEER CREEK MINE ACT/015/018

COTTONWOOD/WILBERG MINE ACT/015/019

DES BEE DOVE MINE ACT/015/017

TRAIL MOUNTAIN MINE ACT/015/009

COAL MINING AND RECLAMATION OPERATIONS FOR 1992

(Must be submitted to the Division by March 31, 1993)

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203
(801) 538-5340

RECEIVED

APR 05 1993

DIVISION OF
OIL GAS & MINING

Permittee: PacifiCorp

Mine Name: Deer Creek Mine

Mailing Address: Box 310, Huntington, Utah 84528

Company Representative: Val Payne

Resident Agent: Val Payne

Permit Number: ACT/015/018

MSHA ID Number: 42-00121

Date of Initial Permanent Program Permit: February 7, 1986

Date of Permit Renewal: February 8, 1991

Quantity of Coal Mined (tonnage) 1992: 3,539,175

Attach Updated Mine Sequence Map(s) showing mine development through December 31, 1992.
(Same as Lease Royalty Payment Map and/or MSHA Progress Map)

All monitoring activities during the report period to be submitted with this report (including, but not limited to):

A. Summarized Water Monitoring Data:

1. List of monitoring points and their locations and respective frequencies of monitoring (monthly, quarterly, etc.) as approved in the PAP;
2. UPDES permit number, UPDES discharge points and their locations;
3. Summary of findings based on water monitoring during 1992; and
4. Submit water monitoring as database files (ASCII, Lotus, dBase, etc.)
(Please contact Ken Wyatt if you have any questions).

- B. Precipitation or Other Climatological Data (please submit as database files: ASCII, Lotus, dBase, etc.-- Contact Ken Wyatt if you have any questions).**

COAL MINING AND RECLAMATION OPERATIONS FOR 1992

(Must be submitted to the Division by March 31, 1993)

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203
(801) 538-5340

Permittee: PacifiCorp

Mine Name: Cottonwood/Wilberg Mine

Mailing Address: Box 310, Huntington, Utah 84528

Company Representative: Val Payne

Resident Agent: Val Payne

Permit Number: ACT/015/019

MSHA ID Number: Wilberg 42-00080 Cottonwood 42-01944

Date of Initial Permanent Program Permit: July 6, 1984

Date of Permit Renewal: July 6, 1989

Quantity of Coal Mined (tonnage) 1992: 3,266,473

Attach Updated Mine Sequence Map(s) showing mine development through December 31, 1992.
(Same as Lease Royalty Payment Map and/or MSHA Progress Map)

All monitoring activities during the report period to be submitted with this report (including, but not limited to):

A. Summarized Water Monitoring Data:

1. List of monitoring points and their locations and respective frequencies of monitoring (monthly, quarterly, etc.) as approved in the PAP;
2. UPDES permit number, UPDES discharge points and their locations;
3. Summary of findings based on water monitoring during 1992; and
4. Submit water monitoring as database files (ASCII, Lotus, dBase, etc.)
(Please contact Ken Wyatt if you have any questions).

B. Precipitation or Other Climatological Data (please submit as database files: ASCII, Lotus, dBase, etc.-- Contact Ken Wyatt if you have any questions).

COAL MINING AND RECLAMATION OPERATIONS FOR 1992

(Must be submitted to the Division by March 31, 1993)

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203
(801) 538-5340

Permittee: PacifiCorp

Mine Name: Des Bee Dove

Mailing Address: PO Box 310, Huntington, Utah 84528

Company Representative: Val Payne

Resident Agent: Val Payne

Permit Number: ACT/015/017

MSHA ID Number: Deseret 42-00988, Beehive 42-00082, Little Dove
42-01393

Date of Initial Permanent Program Permit: August 29, 1985

Date of Permit Renewal: May 31, 1991

Quantity of Coal Mined (tonnage) 1992: -0-

Attach Updated Mine Sequence Map(s) showing mine development through December 31, 1992.
(Same as Lease Royalty Payment Map and/or MSHA Progress Map)

All monitoring activities during the report period to be submitted with this report (including, but not limited to):

A. Summarized Water Monitoring Data:

1. List of monitoring points and their locations and respective frequencies of monitoring (monthly, quarterly, etc.) as approved in the PAP;
2. UPDES permit number, UPDES discharge points and their locations;
3. Summary of findings based on water monitoring during 1992; and
4. Submit water monitoring as database files (ASCII, Lotus, dBase, etc.)
(Please contact Ken Wyatt if you have any questions).

B. Precipitation or Other Climatological Data (please submit as database files: ASCII, Lotus, dBase, etc.-- Contact Ken Wyatt if you have any questions).

COAL MINING AND RECLAMATION OPERATIONS FOR 1992

(Must be submitted to the Division by March 31, 1993)

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203
(801) 538-5340

Permittee: PacifiCorp

Mine Name: Trail Mountain

Mailing Address: Box 310, Huntington, Utah 84528

Company Representative: Val Payne

Resident Agent: Val Payne

Permit Number: ACT/015/009

MSHA ID Number: 42-01211

Date of Initial Permanent Program Permit: May 11, 1978

Date of Permit Renewal: September 12, 1991

Quantity of Coal Mined (tonnage) 1992: 239,056

Attach Updated Mine Sequence Map(s) showing mine development through December 31, 1992.
(Same as Lease Royalty Payment Map and/or MSHA Progress Map)

All monitoring activities during the report period to be submitted with this report (including, but not limited to):

A. Summarized Water Monitoring Data:

1. List of monitoring points and their locations and respective frequencies of monitoring (monthly, quarterly, etc.) as approved in the PAP;
2. UPDES permit number, UPDES discharge points and their locations;
3. Summary of findings based on water monitoring during 1992; and
4. Submit water monitoring as database files (ASCII, Lotus, dBase, etc.)
(Please contact Ken Wyatt if you have any questions).

B. Precipitation or Other Climatological Data (please submit as database files: ASCII, Lotus, dBase, etc.-- Contact Ken Wyatt if you have any questions).

SECTIONS A AND B

WATER MONITORING DATA

**SEE: ANNUAL HYDROLOGIC MONITORING REPORT
EAST MOUNTAIN PROPERTY
1992**

SECTION C

SUBSIDENCE MONITORING REPORT

**SEE: ANNUAL SUBSIDENCE MONITORING REPORT
EAST MOUNTAIN PROPERTY
1992**



November 24, 1992

Pamela Grubaugh-Littig
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

**RE: SUBSIDENCE MONITORING, PACIFICORP, TRAIL MOUNTAIN MINE,
ACT/015/009, EMERY COUNTY, UTAH**

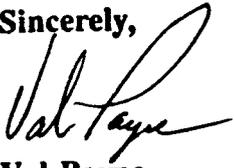
Dear Ms. Grubaugh-Littig:

As you are aware, subsidence monitoring conducted by Mountain Coal Company at the Trail Mountain mine involved conventional surveying of a network of survey monuments. The monitoring was conducted in the Fall (October/November) each year. However, in 1991 the Fall monitoring was not completed because early snow accumulation made access and monitoring unfeasible; therefore, the 1991 monitoring was completed in July of 1992.

During the permit transfer process, you and I discussed the fact that, because monitoring had been conducted so recently, Mountain Coal Company did not plan to conduct monitoring in the Fall of 1992. Because PacifiCorp's permit transfer application and the Division's approval occurred in the October/November time frame, conditions again exist which make access for the 1992 Fall monitoring of the Mountain Coal monument network impracticable. Therefore, PacifiCorp commits to conducting the Trail Mountain subsidence monitoring according to the approved schedule, in the Fall of 1993. The monitoring will be done in accordance with past practices utilizing conventional surveying methods or PacifiCorp's current aerial photogrammetric system will be expanded to include the Trail Mountain area. If photogrammetric methods are to be utilized, the PAP will be amended as necessary.

I hope this proposal is satisfactory to you. If you have questions or comments regarding the Trail Mountain subsidence monitoring, please call me at 653-2312.

Sincerely,

A handwritten signature in black ink, appearing to read "Val Payne". The signature is fluid and cursive, with a large loop at the end of the last name.

**Val Payne
Sr. Environmental Engineer**

**cc: J. Blake Webster
Rodger Fry
File**

SECTION D

VEGETATION MONITORING

**SEE: VEGETATION MONITORING OF THE COTTONWOOD/
WILBERG, DES BEE DOVE, DEER CREEK, AND
COTTONWOOD FAN PORTAL AREAS
1992**

SECTION D: VEGETATION DATA OR REVEGETATION SUCCESS MONITORING

1. See enclosed report (Mt. Nebo Scientific)
2. See enclosed report (Mt. Nebo Scientific)
3. See enclosed report (Mt. Nebo Scientific)
4. During the fall of 1992, two areas were seeded. The Cottonwood/Wilberg Waste Rock Cell #7 was seeded with the approved final seedmix (see Appendix VII for details). A small area on the north end of the cell was not seeded because additional waste rock was required to complete this portion of the cell. The Des-Bee-Dove Test Plots were seeded. A number of treatments were implemented in hopes to obtain helpful information for the reclamation of the mancos shale (see Appendix XVI for details).

SECTION E

IMPOUNDMENT CERTIFICATION

ENGINEERS STATEMENT:

I do hereby certify that the 1992 Annual Engineering Reports for the Sedimentation Structures for the Deer Creek, Cottonwood/Wilberg, Des Bee Dove Mines, Cottonwood Exploration Site and the Trail Mountain Mine are true and correct to the best of my knowledge and belief.



Steven E. Kochevar
PE #7889

3/30/93
Date

**ANNUAL ENGINEERING REPORT
DEER CREEK SEDIMENT POND
1992**

This report is submitted as required by Federal and State regulations:

**R645-301-514.300
30 CFR 77.216-4
30 CFR 817.49**

Design data:

Top of Dam Elevation	7235.00
Toe of Dam Elevation	7217.14
Spillway Crest Elevation	7232.03
Total Storage Capacity	12.51 ac.ft.
Sediment Storage Capacity	3.11 ac.ft.
Control Points	1-7235.54
	2-7235.50
	3-7235.64
	4-7235.98

Operational data:

	<u>ACCUMULATED SEDIMENT</u>	<u>WATER ELEVATION</u>	<u>CONTROL POINT ELEVATION</u>
1st Quarter 3-25-92	Frozen	7226.43	No Change
2nd Quarter 6-29-92	0.46	7221.33	No Change
3rd Quarter 9-28-92	0.56	7220.96	No Change
4th Quarter 12-16-92	Frozen	7220.00	No Change

Inspection:

Visual inspections were made during each quarter, no stability problems or other concerns were found.

**ANNUAL ENGINEERING REPORT
DEER CREEK WASTE ROCK DETENTION POND
1992**

This report is submitted as required by Federal and State regulations:

**R645-301-514.300
30 CFR 77.216-4
30 CFR 817.49**

Design data:

Top of Dam Elevation	6319.00
Toe of Dam Elevation	6311.20
Spillway Crest Elevation	6317.30
Total Storage Capacity	4.64 ac.ft.
Sediment Storage Capacity	2.90 ac.ft.
Control Points	1. 6313.70
	2. 6326.10
	3. 6326.80

Operational data:

	<u>ACCUMULATED SEDIMENT</u>	<u>WATER ELEVATION</u>	<u>CONTROL POINT ELEVATION</u>
3rd Quarter 9-28-92	0.0	DRY	NO CHANGE
4th Quarter 12-16-92	0.0	6311.10	NO CHANGE

Inspection:

Visual inspections were made during each quarter, no stability problems or other concerns were found.

**ANNUAL ENGINEERING REPORT
DES BEE DOVE SEDIMENT POND
1992**

This report is submitted as required by Federal and State regulations:

R645-301-514.300
30 CFR 77.216-4
30 CFR 817.49

Design data:

Top of Dam Elevation	6775.00
Toe of Dam Elevation	6756.00
Spillway Crest Elevation	6771.80
 Total Storage Capacity	 19.80 ac.ft.
Sediment Storage Capacity	2.00 ac.ft.
 Control Points	 0+00 - 6775.20
	0+85 - 6775.00
	1+25 - 6775.20
	1+65 - 6775.40

Operational data:

	<u>ACCUMULATED SEDIMENT</u>	<u>WATER ELEVATION</u>	<u>CONTROL POINT ELEVATION</u>
1st Quarter 3-25-92	0.0	Damp	No Change
2nd Quarter 6-29-92	0.0	Damp	No Change
3rd Quarter 9-28-92	0.0	Dry	No Change
4th Quarter 12-16-92	0.0	6754.50 Top Ice	No Change

Inspection:

Visual inspections were made during each quarter, no stability problems or other concerns were found.

**ANNUAL ENGINEERING REPORT
COTTONWOOD SEDIMENT POND
1992**

This report is submitted as required by Federal and State regulations:

**R645-301-514.300
30 CFR 77.216-4
30 CFR 817.49**

NORTH POND (#1)

Design data:

Top of Dam Elevation	7367.00
Toe of Dam Elevation	7345.20
Spillway Crest Elevation	7365.00
Total Storage Capacity	2.15 ac.ft.
Sediment Storage Capacity	0.90 ac.ft.
Control Points	N-1 7367.36
	N-2 7267.63
	N-3 7367.09

Operational data:

	<u>ACCUMULATED SEDIMENT</u>	<u>WATER ELEVATION</u>	<u>CONTROL POINT ELEVATION</u>
1st Quarter 3-25-92	0.37	7358.63	No Change
2nd Quarter 6-29-92	0.0 Cleaned	7356.00	No Change
3rd Quarter 9-28-92	0.11	7355.93	No Change
4th Quarter 12-16-92	0.11	7356.00	No Change

SOUTH POND (#2)

Design data:

Top of Dam Elevation	7337.00
Toe of Dam Elevation	7317.00
Spillway Crest Elevation	7335.00
Total Storage Capacity	1.88 ac.ft.
Sediment Storage Capacity	0.30 ac.ft.
Control Points	S-1 7338.52
	S-2 7336.42
	S-4 7339.45

Operational data:

	<u>ACCUMULATED SEDIMENT</u>	<u>WATER ELEVATION</u>	<u>CONTROL POINT ELEVATION</u>
1st Quarter 3-25-92	0.00	7330.00	No Change
2nd Quarter 6-29-92	0.00	7330.30	No Change
3rd Quarter 9-28-92	0.00	7330.30	No Change
4th Quarter 12-16-92	Frozen	7330.30	No Change

Inspection:

Visual inspections were made during each quarter, no stability problems or other concerns were found.

North Pond was cleaned of sediment during 2nd Quarter.

**ANNUAL ENGINEERING REPORT
COTTONWOOD WASTE ROCK DETENTION POND
1992**

This report is submitted as required by Federal and State regulations:

**R645-301-514.300
30 CFR 77.216-4
30 CFR 817.49**

Design data:

Top of Dam Elevation	6772.00
Toe of Dam Elevation	6755.00
Spillway Crest Elevation	6770.00
Total Storage Capacity	4.58 ac.ft.
Sediment Storage Capacity	1.65 ac.ft.
Control Points	0+00 6770.0
	0+30 6772.0
	0+67 6772.0
	1+05 6772.0

Operational data:

	<u>ACCUMULATED SEDIMENT</u>	<u>WATER ELEVATION</u>	<u>CONTROL POINT ELEVATION</u>
1st Quarter 3-25-92	0.0	DRY	NO CHANGE
2nd Quarter 6-29-92	0.0	DRY	NO CHANGE
3rd Quarter 9-28-92	0.0	6754.64	NO CHANGE
4th Quarter 12-16-92	0.0	6754.80	NO CHANGE

Inspection:

Visual inspections were made during each quarter, no stability problems or other concerns were found.

**ANNUAL ENGINEERING REPORT
COTTONWOOD EXPLORATION SITE SEDIMENT PONDS
1992**

This report is submitted as required by Federal and State regulations:

**R645-301-514.300
30 CFR 77.216-4
30 CFR 817.49**

Design data:

	<u>SEDIMENT CAPACITY</u>	<u>TOTAL CAPACITY</u>
North Basin	.047 ac.ft.	.107 ac.ft.
Center Basin	.115 ac.ft.	.511 ac.ft.
TOTAL	.245 ac.ft.	.696 ac.ft.

Operational data:

ACCUMULATED SEDIMENT (AC.FT.)

	<u>NORTH #1</u>	<u>SOUTH #2</u>
1st Quarter 3-25-92	.001	.050
2nd Quarter 6-29-92	.001	.050
3rd Quarter 9-28-92	.001	.050
4th Quarter 12-16-92	.001	.050

WATER ELEVATION

	<u>NORTH #1</u>	<u>SOUTH #2</u>
1st Quarter	Dry	Dry
2nd Quarter	Dry	Dry
3rd Quarter	Dry	Dry
4th Quarter	Dry	Dry

Inspection:

Visual inspections were made during each quarter, no stability problems or other concerns were found.

**ANNUAL ENGINEERING REPORT
TRAIL MOUNTAIN SEDIMENT POND
1992**

This report is submitted as required by Federal and State regulations:

**R645-301-514.300
30 CFR 77.216-4
30 CFR 817.49**

Design data:

Total Storage Capacity	2.12 ac.ft.
Sediment Storage Capacity	0.47 ac.ft.

Operational data:

	<u>ACCUMULATED SEDIMENT</u>	<u>WATER ELEVATION</u>
4th Quarter 12-16-92	0.0	7179.00

***NOTE: PacifiCorp acquired Trail Mountain Mine in the 4th Quarter of 1992.**

Inspection:

Visual inspections were made, no stability problems or other concerns were found.

SECTION F

REFUSE DATA

SECTION F: REFUSE DATA

1. Samples were collected at the Cottonwood/Wilberg/Des-Bee-Dove Waste Rock Storage Facility and the Deer Creek Waste Rock Storage Facility.
2. Samples were collected in accordance with procedures outlined in the Cottonwood/Wilberg Waste Rock Storage Facility Volume, Chapter II, pages 2-12.1 through 2-12.2 and the Deer Creek Waste Rock Storage Facility Volume, Chapter VII, pages 7-4 through 7-5.
3. Please refer to the attached laboratory analyses. All parameters were analyzed according to the Division's "GUIDELINES FOR MANAGEMENT OF TOPSOIL AND OVERBURDEN".
4. All analyzed parameters fall in the "acceptable" range of the Division's "GUIDELINES FOR MANAGEMENT OF TOPSOIL AND OVERBURDEN" Table 2, with the exception of Cottonwood sample #1, Sept. 30, 1992. The SAR was in the "unacceptable" range. This material will be covered by 4' of suitable material for the vegetative root zone.

Additional samples were sampled late in the year at the Deer Creek site. The results have not been received to date but will be added in the 1993 annual report. To avoid redundancy, fall samples for the Cottonwood site were not collected because adequate material had not been disposed of in the site since the collection of the attached samples.



Inter-Mountain Laboratories, Inc.

Sheridan, Wyoming 82801

Tel. (307) 672-8945

1633 Terra Avenue

ENERGY WEST MINING COMPANY
HUNTINGTON, UTAH
MINE: COTTONWOOD

September 30, 1992

Lab No.	Location	Depths	pH	EC μmhos/cm @ 25°C	Satur- ation %	Calcium meq/l	Magnesium meq/l	Sodium meq/l	SAR	Sand %	Silt %	Clay %	Texture
81290	COTWOOD WASTE #1 #2		7.8	3.93	36.2	2.56	1.66	32.9	22.6	74.4	14.9	10.7	SANDY LOAM
81291			7.2	4.45	41.7	12.7	5.51	24.3	8.06	79.8	14.0	6.2	LOAMY SAND

*CaCO₃ % is shown as
CO₃ %
PYRITE = Pyritic Sulfur*



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ENERGY WEST MINING COMPANY
 HUNTINGTON, UTAH
 MINE: COTTONWOOD

September 30, 1992

Page 2 of 3

Lab No.	Location	Depths	Organic Carbon %	Carbonate %	Total Sulfur %	T.S. AB t/1000t	Neut. Pot. t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Sulfate Sulfur ppm	Pyritic Sulfur %	Iron Pyrite %	Organic Sulfur %	PyrS AB t/1000t	PyrS ABP t/1000t
81290	CTWOOD WASTE #1		4.7	21.9	0.36	11.2	219.	207.	<0.01	<1000.	0.04	<0.01	0.32	1.25	217.
81291	#2		2.7	19.4	0.34	10.6	194.	184.	<0.01	<1000.	0.04	<0.01	0.30	1.25	193.

Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neut. Pot.= Neutralization Potential



Inter-Mountain Laboratories, Inc.

1633 Terra Avenue

Sheridan, Wyoming 82801

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ENERGY WEST MINING COMPANY
HUNTINGTON, UTAH
MINE: COTTONWOOD

September 30, 1992

Page 3 of 3

Lab No.	Location	Depths	Boron ppm	Selenium ppm	Ammonium Carbonate Extractable Molybdenum ppm	DTPA Extractable Iron ppm	DTPA Extractable Zinc ppm
81290	CTWOOD WASTE #1		1.95	<0.02	<0.05	27.2	0.54
81291	#2		1.69	<0.02	<0.05	6.52	0.55



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1633 Terra Avenue

Sheridan, Wyoming 82801

Tel. (307) 672-8945

ENERGY WEST MINING COMPANY
HUNTINGTON, UTAH
MINE: DEER CREEK

October 13, 1992

Lab No.	Location	Depths	pH	EC mmhos/cm @ 25°C	Satur- ation %	Calcium meq/l	Magnesium meq/l	Sodium meq/l	SAR	Coarse Fragments %	Sand %	Silt %	Clay %	Texture
81287	DEER CREEK #1		7.4	8.57	41.5	23.1	19.3	50.0	10.9	30.1	43.5	35.8	20.7	LOAM
81288	DEER CREEK #2		7.5	9.74	36.6	29.6	7.29	57.2	13.3	59.8	68.9	19.5	11.6	SANDY LOAM
81289	DEER CREEK #3		7.4	5.86	38.2	24.7	23.0	17.6	3.61	52.1	52.5	35.9	11.6	SANDY LOAM

*CaCO₃% is shown
As CO₃%*

*NON-SULFATE = Pyritic +
ORGANIC SULFUR %*

Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage, Exch= Exchangeable, Avail= Available



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ENERGY WEST MINING COMPANY
HUNTINGTON, UTAH
MINE: DEER CREEK

October 13, 1992

Page 2 of 2

Lab No.	Location	Depths	Carbonate %	Total Sulfur %	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	Boron ppm	Selenium ppm
81287	DEER CREEK #1		18.1	0.48	0.16	0.04	0.28	0.83	0.05
81288	DEER CREEK #2		19.1	2.05	1.64	0.10	0.31	1.11	0.04
81289	DEER CREEK #3		46.4	0.68	0.15	0.14	0.39	0.82	0.09

Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur,
Neut. Pot.= Neutralization Potential

SECTION G

REPORT OF OFFICERS

PACIFICORP OFFICERS

NAME

ADDRESS AND TELEPHONE NUMBER

A.M. Gleason
Date Position Assumed 1-1-85

President and Chief Executive Officer
700 NE Multnomah, Suite 1600
Portland, OR 97232-4116
(503) 731-2111

Gerard K. Drummond
Date Position Assumed 10-14-87

Executive Vice President
700 NE Multnomah, Suite 1600
Portland, OR 97232-4116
(503) 731-2120

Charles C. Adams
Date Position Assumed 2-19-92

Senior Vice President
One Utah Center
201 South Main, Suite 2100
Salt Lake City, UT 84140

John A. Bohling
Date Position Assumed 2/17/93

Senior Vice President
700 NE Multnomah, Suite 1600
Portland, OR 97232-4116

William J. Glasgow
Date Position Assumed 2-1-92

Senior Vice President
700 NE Multnomah, Suite 1600
Portland, OR 97232-4116

Harry A. Haycock
Date Position Assumed 5-16-90

Senior Vice President
PacifiCorp
One Utah Center
201 South Main, Suite 2100
Salt Lake City, Utah 84180-0021
(801) 220-4603

Robert F. Lanz
Date Position Assumed 10-78

Vice President and Treasurer
700 NE Multnomah, Suite 1600
Portland, OR 97232-4116
(503) 731-2110

Daniel L. Spalding
Date Position Assumed 10-14-87

Senior Vice President
700 NE Multnomah, Suite 1600
Portland, OR 97232-4116
(503) 731-2133

Sally A. Nofziger
Date Position Assumed 5-1-80

Vice President and Corporate Secretary
700 NE Multnomah, Suite 1600
Portland, OR 97232-4116
(503) 731-2144

Stan M. Marks
Date Position Assumed 7-9-86

Vice President
700 NE Multnomah, Suite 1600
Portland, OR 97232-4116
(503) 731-2115

William C. Brauer
Date Position Assumed 2-19-92

Vice President
PacifiCorp
One Utah Center
201 South Main, Suite 2100
Salt Lake City, Utah 84180-0021
(801) 220-4604

Michael C. Henderson
Date Position Assumed 5-13-92

Vice President
851 SW Sixth Avenue, Suite 430
Portland, Oregon 97204

Thomas J. Imeson
Date Position Assumed 11-28-90

Vice President
700 NE Multnomah, Suite 1600
Portland, Oregon 97232-4116

Dennis P. Steinberg
Date Position Assumed 8-15-90

Vice President
700 NE Multnomah, Suite 1600
Portland, Oregon 97232-4116

Shelly R. Faigle
Date Position Assumed 2-19-92

Vice President
920 SW Sixth Avenue, Suite 1500
Portland, OR 97204

Lee D. Weislogel
Date Position Assumed 2-19-92

Vice President
920 SW Sixth Avenue, Suite 1000
Portland, OR 97204

Jacqueline S. Bell
Date Position Assumed 5-17-89

Controller
700 NE Multnomah, Suite 700
Portland, OR 97232-4116
(503) 731-2053

Lenore M. Martin
Date Position Assumed 7-8-87

Assistant Secretary
700 NE Multnomah, Suite 1600
Portland, OR 97232-4116
(503) 731-2132

Marsha E. Carroll
Date Position Assumed 8/19/92

Assistant Secretary
700 NE Multnomah, Suite 700
Portland, OR 97232-4116

Gary R. Barnum
Date Position Assumed 7-10-85

Stoel Rives Boley Jones & Grey
950 POP
700 NE Multnomah
Portland, OR 97232

John Detjens III
Date Position Assumed 7-10-85

Stoel Rives Boley Jones & Grey
950 POP
700 NE Multnomah
Portland, OR 97232
(503) 294-9100

John M. Schweitzer
Date Position Assumed 6-13-84

Donald A. Bloodworth
Date Position Assumed 2-19-92

Assistant Treasurers
700 NE Multnomah, Suite 1600
Portland, OR 97232-4116
(503) 731-2064, 731-2074
731-2124

John R. Stageberg
Date Position Assumed 8-15-90

Bruce N. Williams
Date Position Assumed 8-15-90

UTAH POWER & LIGHT COMPANY DIVISION OFFICERS

<u>NAME</u>	<u>ADDRESS AND TELEPHONE NUMBER</u>
Verl R. Topham Date Position Assumed 2-1-90	President and Chief Executive Officer Utah Power & Light Company 1407 West North Temple Salt Lake City, UT 84140 (801) 220-4200
John E. Mooney Date Position Assumed 9-1-91	Executive Vice President Utah Power & Light Company 201 South Main, Suite 2300 Salt Lake City, Utah 84140
Thomas W. Forsgren Date Position Assumed 1-9-89	Vice President Utah Power & Light Company 1407 West North Temple Salt Lake City, UT 84140 (801) 220-6800
Thomas A. Lockhart Date Position Assumed 2-19-92	Vice President 1607 Cy Avenue, 82604 PO Box 720 Casper, WY 82602
Richard D. Westerberg Date Position Assumed 2-21-90	Vice President Utah Power & Light Company PO Box 130 Rexburg, ID 83440
H. Arnold Wagner Date Position Assumed 8/19/92	Controller Utah Power & Light Company 1407 West North Temple Salt Lake City, UT 84140 (801) 220-4043

PACIFIC POWER & LIGHT COMPANY DIVISION OFFICERS

Paul G. Lorenzini
Date Position Assumed 2-1-92

President
920 SW Sixth Avenue
Portland, OR 97204
(503) 464-6304

Thomas A. Lockhart
Date Position Assumed 2-15-89

Vice President
1607 Cy Avenue, 82604
PO Box 720
Casper, WY 82602

Diana E. Snowden
Date Position Assumed 1-8-86

Vice President
9120 SW Pioneer Court, Suite B
Wilsonville, OR 97070
(503) 682-4200

C.K. Ferguson
Date Position Assumed 6-9-82

Assistant Secretary
920 SW Sixth Avenue, Mezz-PSB
Portland, Oregon 97204

DIRECTORS OF PACIFICORP
AN OREGON CORPORATION

C. Todd Conover
Central Banks of Colorado
PO Box 3030
Denver, Colorado 80202
Date Position Assumed 8-21-91

Gerard K. Drummond
Executive Vice President
700 N.E. Multnomah
Suite 1600
Portland, OR 97232-4116
Date Position Assumed 5-15-91

A.M. Gleason
President and Chief
Executive Officer
700 NE Multnomah, Suite 1600
Portland, Oregon 97232-4116
Date Position Assumed 4-13-88

Richard C. Edgley
Church of Jesus Christ of Latter-Day
Saints
50 East North Temple
Salt Lake City, UT 84150
Date Position Assumed 10-14-87

Don C. Frisbee
Chairman of the Board
825 NE Multnomah
Lloyd Tower, Suite 1055
Portland, Oregon 97232
Date Position Assumed 4-19-66

Don M. Wheeler
President
Wheeler Machinery
4901 West 2100 South
Salt Lake City, UT 84120
Date Position Assumed 1-11-89

John C. Hampton
Hampton Resources, Inc.
Suite 400
9400 SW Barnes Road
Portland, OR 97225
Date Position Assumed 4-8-83

Keith R. McKennon
Dow Chemical Company
2030 Willard H. Dow Center
Midland, MI 48674
Date Position Assumed 11-28-90

Stanley K. Hathaway
Hathaway, Speight, Kunz, Trautwein &
Barrett
PO Box 1208
Cheyenne, WY 81003-1208
Date Position Assumed 12-10-75

C.M. Bishop, Jr.
Pendleton Woolen Mills
PO Box 1691
Portland, OR 97207
Date Position Assumed 3-11-70

Nancy Wilgenbusch
President
Marylhurst College
Marylhurst, OR 97036
Date Position Assumed 10-8-86

Nolan E. Karras
Investment Management & Research,
Inc.
4695 South 1900 West #3
Roy, UT 84067