

Document Information Form

Mine Number: C/007/004

File Name: Incoming

To: DOGM

From:

Person N/A

Company CASTLE GATE COAL COMPANY

Date Sent: N/A

Explanation:

REFUSE PILE INSPECTION REPORT

cc:

File in: C/007/004, Incoming

Refer to:

- Confidential
- Shelf
- Expandable

Date _____ For additional information

CASTLE GATE COAL CO.

REFUSE PILE INSPECTION REPORT

MSHA SITE 1211-UT-09-01517-01
1211-UT-09-00-165-01

QUARTER 4 - 1990

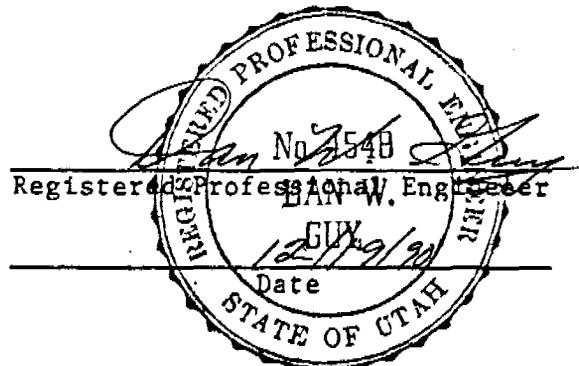
<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Appears stable. Lower 3/4 of pile has been topsoiled and vegetated.
(3) Removal of Topsoil and Organics	Done previously.
(4) Construction and Maintenance Performance Standards	Appears to be in conformance. Pile inactive since summer of 1990. Uncompacted refuse on upper end.
(5) Recommendations	Small refuse piles on upper end should be further compacted when weather allows. 4" snow cover.

I have performed the above inspection on this refuse pile and do hereby certify it to be a true and accurate representation of the pile at this time.

File in:

- Confidential
- Shelf
- Expandable

Refer to Record No. 0017 Date _____
 In C/ 007, 004, Incoming
 For additional information _____



CASTLE GATE COAL CO.

POND INSPECTION REPORT

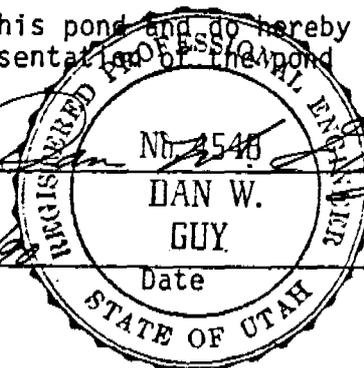
1990 Annual Inspection

POND: 003

LOCATION: Sowbelly Cyn

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Appears stable; well vegetated.
(3) Erosion	Minor on west side. Small depression at mouth of inlet.
(4) Construction and Maintenance Performance Standards	Pond appears clean and dry. Single 18" culvert outlet.
(5) Recommendations/Comments	None. No Discharge. 4" - 6" snow.

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.



 No. 2548
 DAN W.
 GUY
 Date 12/19/90

CASTLE GATE COAL CO.

POND INSPECTION REPORT

1990 Annual Inspection

POND: 004LOCATION: Sowbelly Cyn

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>None noted.</u> <u></u> <u></u>
(2) Slope Stability	<u>Appears stable. Pond incised.</u> <u>Internal slopes 1:1 to 1/2:1.</u> <u>Vegetated.</u>
(3) Erosion	<u>Minor on inlet - SW corner.</u> <u></u> <u></u>
(4) Construction and Maintenance Performance Standards	<u>Pond incised - Dry.</u> <u>Vertical, single 24" culvert outlet.</u> <u></u>
(5) Recommendations/Comments	<u>None. No Discharge.</u> <u>4" - 6" snow.</u> <u></u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]
 No. 2548
 DAN W.
 GUY
 Date 12/19/90
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF UTAH

CASTLE GATE COAL CO.

POND INSPECTION REPORT

1990 Annual Inspection

POND: 005LOCATION: Sowbelly Cvn.

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>None noted.</u>
(2) Slope Stability	<u>Slopes appear stable.</u> <u>Rock-lined (Ledge).</u>
(3) Erosion	<u>None visible.</u>
(4) Construction and Maintenance Performance Standards	<u>Pond incised. Inside slopes</u> <u>about 1:1. Rip-rapped channel</u> <u>outlet.</u>
(5) Recommendations/Comments	<u>None. Pond frozen. No Discharge.</u> <u>4" - 6" snow cover.</u>

I have performed the above inspection on this pond and hereby certify it to be a true and accurate representation of the pond at this time.

12/19/90

IAN W. GUY

No. 4548

REGISTERED PROFESSIONAL ENGINEER

STATE OF UTAH

Date

CASTLE GATE COAL CO.

POND INSPECTION REPORT

1990 Annual Inspection

POND: 007

LOCATION: Hardscrabble Cyn.

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>None noted.</u>
(2) Slope Stability	<u>Slopes appear stable.</u> <u>Retaining wall of timber on N side.</u> <u>Pond incised - small bank on S side.</u>
(3) Erosion	<u>Minor on inlet.</u>
(4) Construction and Maintenance Performance Standards	<u>O.K. - Single, vertical 24"</u> <u>culvert outlet.</u>
(5) Recommendations/Comments	<u>None. No Discharge.</u> <u>4" snow cover.</u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

Dan W. Guy
 No. 4548
 DAN W.
 GUY
 Date
 12/19/90
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF UTAH

CASTLE GATE COAL CO.

POND INSPECTION REPORT

1990 Annual Inspection

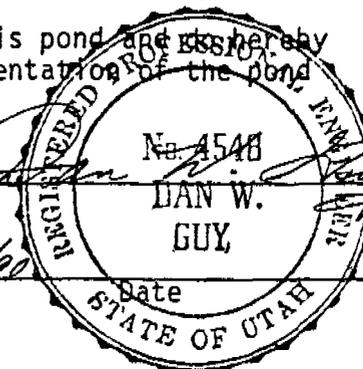
POND: 008

LOCATION: Hardscrabble Cyn.

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Slopes appear stable. Pond incised - vegetated. Small bank on N side.
(3) Erosion	None noted.
(4) Construction and Maintenance Performance Standards	O.K. - Slopes about 3:1.
(5) Recommendations/Comments	None. No Discharge. 4" snow cover.

I have performed the above inspection on this pond and hereby certify it to be a true and accurate representation of the pond at this time.

12/19/90


 No. 4548
 DAN W.
 GUY
 State
 ENGINEER
 STATE OF UTAH

CASTLE GATE COAL CO.

POND INSPECTION REPORT

1990 Annual Inspection

POND: 009 (Lower Cell)LOCATION: Hardscrabble Cyn.

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>Pond is close to road. Traffic</u> <u>could go over edge.</u>
(2) Slope Stability	<u>Stable - Entire inner slope is</u> <u>vertical and lined with timber.</u>
(3) Erosion	<u>Significant erosion on inlet</u> <u>from upper cell.</u>
(4) Construction and Maintenance Performance Standards	<u>Single, vertical culvert outlet.</u>
(5) Recommendations/Comments	<u>Repair inlet. Also suggest a</u> <u>rail be placed along road for safety.</u> <u>No Discharge. 4" snow cover.</u>

I have performed the above inspection on this pond and do hereby
certify it to be a true and accurate representation of the pond
at this time.

[Signature]
No. 4548
IAN W.
GUY
Date 12/19/90
REGISTERED PROFESSIONAL ENGINEER
STATE OF UTAH

CASTLE GATE COAL CO.

POND INSPECTION REPORT

1990 Annual Inspection

POND: 0010LOCATION: Castle Gate No. 1 Mine

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>None noted.</u> <u></u> <u></u>
(2) Slope Stability	<u>Appears stable. Bank on So. end</u> <u>appears narrow.</u> <u></u>
(3) Erosion	<u>None evident.</u> <u></u> <u></u>
(4) Construction and Maintenance Performance Standards	<u>No outflows noted. May be low</u> <u>area on east edge of berm.</u> <u></u>
(5) Recommendations/Comments	<u>None. Pond has 3" - 4" water.</u> <u>No Discharge. 4" snow cover.</u> <u></u>

I have performed the above inspection on this pond and do hereby
certify it to be a true and accurate representation of the pond
at this time.

12/19/90 Date

DAN W. GUY No. 4548
REGISTERED PROFESSIONAL ENGINEER
STATE OF UTAH

CASTLE GATE COAL CO.

POND INSPECTION REPORT

1990 Annual Inspection

POND 0012 (Upper Cell)

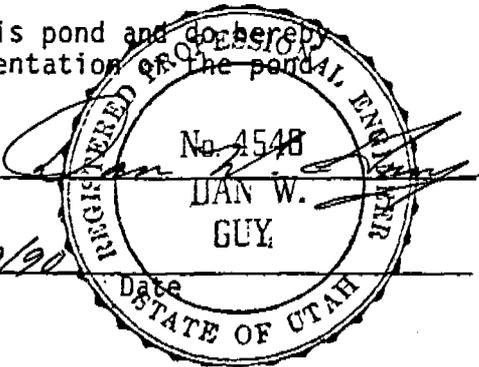
LOCATION: Castle Gate

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Slopes appear stable. Vertical wall on east side - mostly rock.
(3) Erosion	Minor on inlet (No. end)
(4) Construction and Maintenance Performance Standards	O.K. Valve on outlet - Discharges to lower cell.
(5) Recommendations/Comments	None. No Discharge.
	Pond has about 18" ice.
	4" snow cover.

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12/19/90

Date



No. 4548
 DAN W.
 GUY
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 STATE OF UTAH

CASTLE GATE COAL CO.

POND INSPECTION REPORT

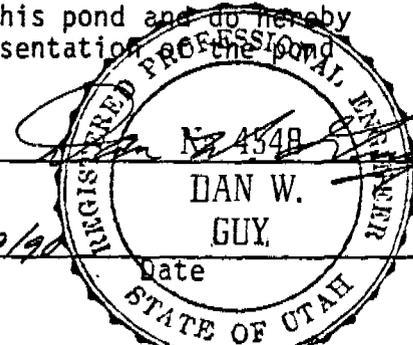
1990 Annual Inspection

POND: 0012 (Lower Cell)

LOCATION: Castle Gate

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Vertical slopes on cleanout access. East side highwall about 1/2:1. Vegetated.
(3) Erosion	Minor sluffage on cleanout access.
(4) Construction and Maintenance Performance Standards	O.K. - Single, vertical culvert outlet.
(5) Recommendations/Comments	None. No Discharge. 4" snow cover.

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.



12/19/90 Date

CASTLE GATE COAL CO.

POND INSPECTION REPORT

1990 Annual Inspection

POND: Refuse Pond

LOCATION: Castle Gate

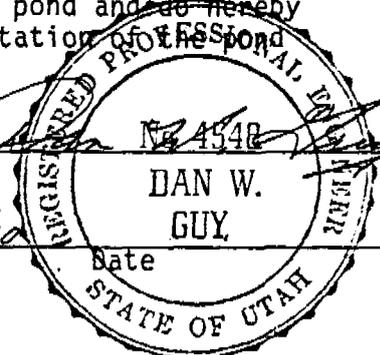
MSHA I.D. 1211-UT-09-00-165-02

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Appears stable. Pond incised on north end. Vegetated.
(3) Erosion	None evident.
(4) Construction and Maintenance Performance Standards	O.K. - Pond appears well constructed.
(5) Recommendations/Comments	None. Pond Dry. No Discharge.
	4" snow cover.

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of this pond at this time.

12/19/90

Date



REGISTERED PROFESSIONAL ENGINEER
 NO. 4548
 DAN W. GUY
 STATE OF UTAH

CASTLE GATE COAL CO.

POND INSPECTION REPORT

1990 Annual Inspection

POND: 0011

LOCATION: Castle Gate

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>None noted.</u>
(2) Slope Stability	<u>Appears stable. Vegetated.</u>
(3) Erosion	<u>None evident.</u>
(4) Construction and Maintenance Performance Standards	<u>Single, vertical culvert outlet.</u>
(5) Recommendations/Comments	<u>None. No Discharge.</u> <u>4" snow cover.</u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]
 No. 4548
 IAN W. GUY
 Date 12/19/90
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF UTAH

CASTLE GATE COAL CO.

POND INSPECTION REPORT

1990 Annual Inspection

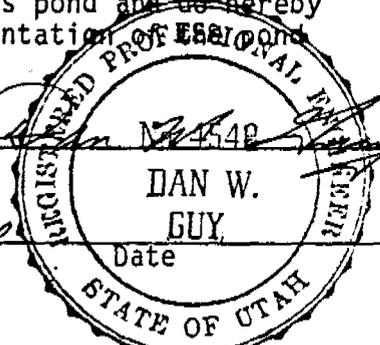
POND: Treatment Plant Pond

LOCATION: Castle Gate

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Appears stable.
(3) Erosion	None noted.
(4) Construction and Maintenance Performance Standards	N/A - Not a sediment pond. Holding pond for mine water.
(5) Recommendations/Comments	None. Pumping to treatment plant. 4" snow cover.

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of this pond at this time.

12/19/90



 DAN W. GUY
 Date

CASTLE GATE COAL CO.

POND INSPECTION REPORT

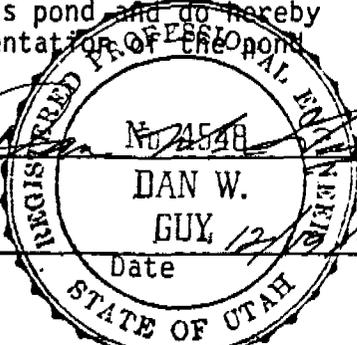
1990 Annual Inspection

POND: Plant Overflow
Thickener Pond

LOCATION: Castle Gate

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Appears stable.
(3) Erosion	None noted.
(4) Construction and Maintenance Performance Standards	N/A - Not a sediment pond.
(5) Recommendations/Comments	None. Dry, clean. No Discharge. 4" snow cover.

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.



 No. 24548
 DAN W.
 GUY
 Date 12/18/90
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF UTAH

CASTLE GATE COAL CO.

POND INSPECTION REPORT

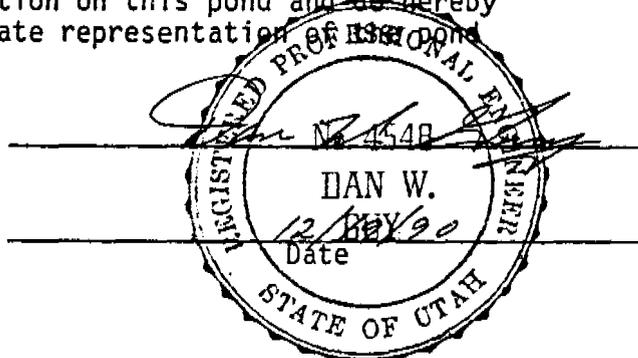
1990 Annual Inspection

POND: Wash Plant Feed

LOCATION: Castle Gate

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Stable. Banks vegetated.
	Rubber lined pond.
(3) Erosion	None evident.
(4) Construction and Maintenance Performance Standards	N/A - Not a sediment pond.
(5) Recommendations/Comments	None.

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CASTLE GATE COAL CO.

POND INSPECTION REPORT

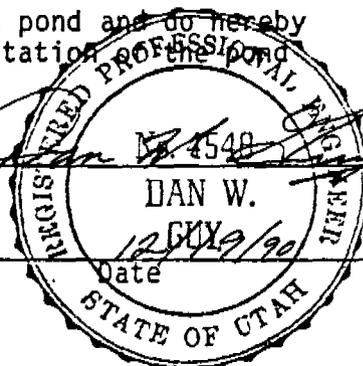
1990 Annual Inspection

POND: 0014

LOCATION: Crandall Cyn.

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Appears stable. Slopes about 3:1 inside. Outslope vertical wall.
(3) Erosion	None noted.
(4) Construction and Maintenance Performance Standards	Good. Vertical culvert overflow. Horiz. culvert emergency overflow.
(5) Recommendations/Comments	None. No Discharge. 6" - 8" snow cover.

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of this pond at this time.



 DAN W. COX
 Date 12/19/90
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF UTAH

CASTLE GATE COAL CO.

POND INSPECTION REPORT

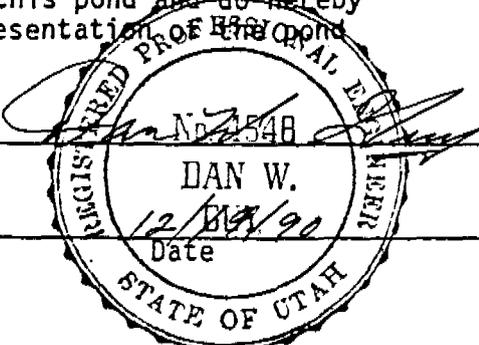
1990 Annual Inspection

POND: 0015

LOCATION: Crandall Cyn.

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	None noted.
(2) Slope Stability	Stable. Vegetated.
(3) Erosion	None evident.
(4) Construction and Maintenance Performance Standards	O.K. - Single, vertical culvert outlet.
(5) Recommendations/Comments	None. No Discharge. 6" - 8" snow cover.

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of this pond at this time.


 No. 2548
 DAN W.
 12/19/90
 Date
 STATE OF UTAH

WATER MONITORING REPORT

Property: Castle Gate
 Station: BM-31
 Location: Above Spring Glen
 Type: Spring
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/30/90	09/29/90	11/26/90	
Flow [gpm]	Inaccess	DRY	DRY	DRY	DRY
PH					
Sp. Cond. [ohms]					
Temp. [C]					
Diss. O [ppm]					
Lab. Meas. [mg/l]					
TDS					
TSS					
O & G					
Al CaCO3					
Hd CaCO3					
Ac CaCO3					
HCO3					
CO3					
Cl					
SO4					
Ca					
Mg					
K					
Na					
Cat/An					
Fe					
Mn					

WATER MONITORING REPORT

APPENDIX A

Property: Castle Gate
 Station: B-6
 Location: Upper Price River
 Type: River
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/30/90	09/29/90	11/27/90	
Flow [gpm]	>5 cfs	>10 cfs	>10 cfs	>10 cfs	>10
PH	7.8	8	7.9	8.04	7.95
Sp. Cond. [ohms]	1250	540	410	490	672.5
Temp. [C]	2	3	5	2.4	3.1
Diss. O [ppm]	9	10	9	9	9.25

Lab. Meas. [mg/l]

TDS	381	234	256	308	294.75
TSS	17	101	54	30	50.5
O & G	N/A	5	Broken	<5	<5
Al CaCO3	244.48	191	192	257	221
Hd CaCO3	288.41	210.84	213	281	248
Ac CaCO3	0	0	0	0	0
HCO3	298.3	214.4	234	313	265
CO3	0	9.2	0	0	2.3
Cl	36.4	12.6	14.7	18.4	20.53
SO4	65.4	36.2	37.9	49.8	47.33
Ca	72.4	36.1	49.8	80.3	59.65
Mg	26.2	29.3	21.5	19.6	24.15
K	3	1.5	1.99	2.03	2.13
Na	31.2	14.6	14.9	23.7	21.1
Cat/An	.54	.40	.78	.15	.47
Fe	.44	.58	.88	.25	.54
Mn	<.02	.07	.05	<.02	.03

WATER MONITORING REPORT

APPENDIX A

Property: Castle Gate
 Station: B-5
 Location: Lower Price River
 Type: River
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/30/90	09/29/90	11/26/90	
Flow [gpm]	>5 cfs	>10 cfs	>10 cfs	>10 cfs	>10
PH	7.8	8	8.1	8	8
Sp. Cond. [ohms]	1290	400	440	490	655
Temp. [C]	2	4	5	2	3.25
Diss. O [ppm]	8	10	9	9	9

Lab. Meas. [mg/l]						
TDS		369	242	257	308	294
TSS		27	63	49	21	40
O & G		<5	20.8	<5	<5	<5
Al	CaCO3	240.66	179.54	181	239	210
Hd	CaCO3	275.78	220.88	213	253	241
Ac	CaCO3	0	0	0	0	0
HC03		293.6	209.7	221	251	244
CO3		0	4.6	0	20.4	6.25
Cl		19.3	8.4	18.9	18.4	16.25
SO4		74.5	72.4	39.1	52.3	59.58
Ca		67.4	52.2	46.6	56.2	55.6
Mg		26.2	22.0	23.5	27.4	24.78
K		2.1	1.9	2.2	2.14	2.09
Na		34.9	15	17.6	25.2	23.18
Cat/An		1.27	2.07	1.06	1.46	1.47
Fe		.18	.99	1.01	.26	.61
Mn		<.02	.06	.04	<.02	.025

WATER MONITORING REPORT

Property: Castle Gate
 Station: B-17
 Location: No. 5 Mine Rd. Junction
 Type: Int. Stream
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/30/90	09/29/90	11/26/90	
Flow [gpm]	DRY	DRY	DRY	DRY	DRY
PH					
Sp. Cond. [ohms]					
Temp. [C]					
Diss. O [ppm]					
Lab. Meas. [mg/l]					
TDS					
TSS					
O & G					
Al CaCO3					
Hd CaCO3					
Ac CaCO3					
HCO3					
CO3					
Cl					
SO4					
Ca					
Mg					
K					
Na					
Cat/An					
Fe					
Mn					

WATER MONITORING REPORT

APPENDIX A

Property: Castle Gate
 Station: BM-32
 Location: Above Rock Bridge
 Type: Spring
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/30/90	09/29/90	11/26/90	
Flow [gpm]	DRY	2	DRY	DRY	2
PH		7.9			7.9
Sp. Cond. [ohms]		2600			2600
Temp. [C]		5			5
Diss. O [ppm]		N/R			N/R

Lab. Meas. [mg/l]			
TDS		1604	1604
TSS		1	1
O & G		N/R	N/R
Al	CaCO3	382	382
Hd	CaCO3	1194.8	1194.8
Ac	CaCO3	0	0
HCO3		447.4	447.4
CO3		9.2	9.2
Cl		50.4	50.4
SO4		902	902
Ca		152.6	152.6
Mg		198.0	198.0
K		13.9	13.9
Na		58.3	58.3
Cat/An		1.95	1.95
Fe		.09	.09
Mn		.02	.02

Property: Castle Gate Coal
 Station: B-12
 Location: Upper Hardscrabble
 Type: Int. Stream
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/14/90	09/29/90	11/26/90	
Flow [gpm]	DRY	DRY	DRY	DRY	DRY
PH					
Sp. Cond. [ohms]					
Temp. [C]					
Diss. O [ppm]					

Lab. Meas. [mg/l]

TDS

TSS

O & G

Al CaCO3

Hd CaCO3

Ac CaCO3

HCO3

CO3

Cl

SO4

Ca

Mg

K

Na

Cat/An

Fe

Mn

WATER MONITORING REPORT

APPENDIX A

Property: Castle Gate Coal
 Station: B-11
 Location: Lower Hardscrabble
 Type: Int. Stream
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/14/90	09/29/90	11/26/90	
Flow [gpm]	DRY	DRY	DRY	DRY	DRY
PH					
Sp. Cond. [ohms]					
Temp. [C]					
Diss. O [ppm]					

Lab. Meas. [mg/l]

TDS

TSS

O & G

Al CaCO3

Hd CaCO3

Ac CaCO3

HCO3

CO3

Cl

SO4

Ca

Mg

K

Na

Cat/An

Fe

Mn

WATER MONITORING REPORT

APPENDIX A

Property: Castle Gate
 Station: BM-30
 Location: Inflow to Sed. Pond
 Type: Disturbed
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/30/90	09/29/90	11/26/90	

Flow [gpm]	DRY	DRY	DRY	DRY	DRY
------------	-----	-----	-----	-----	-----

PH

Sp. Cond. [ohms]

Temp. [C]

Diss. O [ppm]

Lab. Meas. [mg/l]

TDS

TSS

O & G

Al CaCO3

Hd CaCO3

Ac CaCO3

HCO3

CO3

Cl

SO4

Ca

Mg

K

Na

Cat/An

Fe

Mn

WATER MONITORING REPORT

APPENDIX A

Property: Castle Gate
 Station: B-28
 Location: Above Property
 Type: Int. Stream
 Frequency: Quarterly

Date Sampled

Field Measurements 03/09/90 05/30/90 09/29/90 11/26/90 Mean

Flow [gpm] DRY DRY DRY DRY DRY

PH

Sp. Cond. [ohms]

Temp. [C]

Diss. O [ppm]

Lab. Meas. [mg/l]

TDS

TSS

O & G

Al CaCO3

Hd CaCO3

Ac CaCO3

HCO3

CO3

Cl

SO4

Ca

Mg

K

Na

Cat/An

Fe

Mn

WATER MONITORING REPORT

APPENDIX A

Property: Castle Gate
 Station: B-26
 Location: Spring Adj. Topsoil File
 Type: Spring
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/30/90	09/29/90	11/26/90	
Flow [gpm]	DRY	DRY	DRY	DRY	DRY
PH					
Sp. Cond. [ohms]					
Temp. [C]					
Diss. O [ppm]					

Lab. Meas. [mg/l]

TDS
TSS
O & G
Al CaCO3
Hd CaCO3
Ac CaCO3
HCO3
CO3
Cl
SO4
Ca
Mg
K
Na
Cat/An
Fe
Mn

WATER MONITORING REPORT

APPENDIX A

Property: Castle Gate
 Station: B-25
 Location: Crandall Creek Above Mine
 Type: Int. Stream
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/30/90	09/29/90	11/26/90	

Flow [gpm]	DRY	DRY	DRY	DRY	DRY
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PH

Sp. Cond. [ohms]

Temp. [C]

Diss. O [ppm]

Lab. Meas. [mg/l]

TDS

TSS

O & G

Al CaCO3

Hd CaCO3

Ac CaCO3

HCO3

CO3

Cl

SO4

Ca

Mg

K

Na

Cat/An

Fe

Mn

WATER MONITORING REPORT

APPENDIX A

Property: Castle Gate
 Station: B-22
 Location: Crandall - Culvert
 Type: Int. Stream
 Frequency: Quarterly

Field Measurements	Date Sampled				Mean
	03/09/90	05/30.90	09/29/90	11/26/90	
Flow [gpm]	FROZEN	1.2	.2	.4	.6
PH		7.8	8.1	8.0	8.0
Sp. Cond. [ohms]		1090	1900	1029	1340
Temp. [C]		4	5	1	3.3
Diss. O [ppm]		N/R	N/R	N/R	N/R

Lab. Meas. [mg/l]					
TDS		829	836	846	837
TSS		102	15	122	79.7
O & G		N/R	N/R	<.02	N/R
Al	CaCO3	370.54	424	417	404
Hd	CaCO3	692.76	699	723	705
Ac	CaCO3	0	0	0	0
HCO3		452.1	517	509	492.7
CO3		0	0	0	0
Cl		29.4	29.4	26.5	28.4
SO4		324.7	295	327	315.3
Ca		124.5	140	149	138
Mg		92.9	85.1	85.6	87.9
K		6.7	6.71	6.33	6.58
Na		28.1	25.4	27.3	26.9
Cat/An		.81	.7	.32	.61
Fe		2.95	3.72	1.92	2.86
Mn		.37	.44	.18	.33