STATE OF COLORADO

Simmons - DNR, Leigh <leigh.simmons@state.co.us>

C1981022 Elk Creek and Sanborn Creek Mines MR-112 Additional Information

Doug Smith <Doug.Smith@oxbow.com> Wed, Sep 23, 2020 at 4:05 PM
To: "leigh.simmons@state.co.us" <leigh.simmons@state.co.us>
Cc: Mike Ludlow <Mike.Ludlow@oxbow.com>

Leigh,

Please find the attached files describing the history of A and C Gulch emergency activities and associated reclamation. There is an attachment included for the Borehole Abandonment section of the permit to be included with

MR-112.

Also, please extend the completion date for MR-112 until October 2, 2020.

Yours,

Doug Smith

Oxbow Mining, LLC

(970) 929-6034

5 attachments

- **1-MR112 LETTER 9-22-2020.pdf**
  142K
- **2-MAP 2.05-M1 4 of 6.pdf**
  3216K
- **3- MSHA Sanborn Creek Final Map 052413.pdf**
  1578K
- **4-2004 AWARD ARTICLE AND PHOTO.pdf**
  423K
- **5-2.04-E3 TOC AND A-C GULCH ABANDONMENT FOR PERMIT.pdf**
  104K

OXBOW MINING, LLC

3737 Hwy 133 P.O. Box 535 Somerset, Colorado 81434 USA Tel (970)929-5122 Fax (970)929-5177

September 22, 2020

Mr. Leigh Simmons
Environmental Protection Specialist
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, Colorado 80203

Via email

Re: Oxbow Mining, LLC., CDRMS Permit C-1981-022, Minor Revision 112 (MR112) for the Elk Creek and Sanborn Creek Mines Additional Information

Dear Mr. Simmons:

Please accept this additional information regarding reclamation of A Gulch and C Gulch Emergency Facilities that are located above the abandoned Sanborn Creek Mine.

Oxbow activities in A Gulch and C Gulch included emergency road construction and drilling activities. This was in response to a spontaneous combustion fire event that occurred in the Sanborn Creek Mine. On January 26, 1999 elevated carbon monoxide levels were detected in the Sanborn Creek Mine. Shortly thereafter, steps were taken to successfully extinguish the fire and to later re-enter the mine to resume production.

In order to fight the fire, gas monitoring holes and water flood/dewater wells were required. Gas monitor holes installed by Oxbow include SCM-GM1, SCM-GM2, SCM-GM3, and SCM-GM4. Water Flood/ Dewater Wells installed by Oxbow include SCM-WM1. Holes WSC-GM1, 2, 3 and WSC-WF1 shown on Map 2.05-M1 Sheet 4 of 6, were proposed but not drilled.

General Facilities Map 2.05-M1 Sheet 4 of 6, within the permit, shows the locations of the holes and roads at issue and is provided as an attachment to this email. The Final Mine Safety and Health Administration (MSHA) Ventilation Map for Sanborn Creek Mine is also included as an attachment. The MSHA map SCM hole locations matches the SCM hole locations on the General Facilities Map for A gulch. The MSHA map does not show WSC holes as having been drilled.

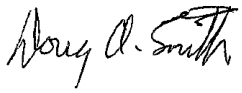
Reclamation of the A Gulch and C Gulch Emergency facilities was completed in the Fall of 2003 by Rundle Construction. Lance Rundle of Rundle Construction recalls plugging and cementing the holes in A Gulch prior to reclaiming the roadways, although no records of the hole completions were made.

In February of 2005, Oxbow Mining received a Coal Mined Land Reclamation – Steep Slope Reclamation Award from the Colorado Division of Minerals and Geology and the Colorado Mining Association, for Rundle Construction reclamation work in A Gulch. A submittal for a newspaper article with a photograph, which describes the reclamation project is attached.

Attachments to this letter include:
General Facilities Map 2.05-M1 Sheet 4 of 6
The Final MSHA Ventilation Map for Sanborn Creek Mine
Newspaper article submittal with photograph

Attachments for placement in the Permit:
Exhibit 2.04-E3 Borehole Abandonment Information (Table of Contents)
A Gulch and C Gulch Emergency Hole Information

Respectfully Yours,



Doug A. Smith
Chief Engineer
Oxbow Mining, LLC
(970) 929-6034

Cc Mike Ludlow
files

E 50,000 E 52,000 E 54,000 E 56,000 E 58,000

N 14,000 N 12,000 N 10,000 N 8,000 N 6,000

8600 8400 8200 8000 7800 7600 7400 7200 7000 6800 6600 6400 6200

PRE–1976 EXPLORATION ROAD

NEW EXPLORATION ROAD

CLEAN WATER DIVERSION

DEGASSIFICATION WELLS CBM–1, CBM–2, CBM–3 AND CBM–4 SURFACE LOCATION

DRILL PAD SEE DETAIL

2.16 ACRES

DEGASSIFICATION WELLS CBM–7, CBM–8 AND CBM–9 SURFACE LOCATION

DEGASSIFICATION WELLS CBM–5, AND CBM–6 SURFACE LOCATION

DEGASSIFICATION WELLS, CBM–10 AND CBM–11 SURFACE LOCATION

Coal Gulch

CG–1

GAS MONITORING WELL SCM–GM4

WSC WF–1

EMERGENCY WATER FLOOD WELL SCM–WF1

GAS MONITORING WELL SCM–GM3

EXPLORATION ROAD (RECLAIMED)

WSC GM–3

OLD SUBSTATION AND VENTILATION SHAFT AREA (SEE DETAIL BELOW)

WSC GM–1

GAS MONITORING WELL SCM–GM1

BOOSTER PUMP INSTALLATION

BACKFILLED VENTILATION SHAFT

C–GULCH EMERGENCY BORROW AREA

GAS MONITORING WELL SCM–GM2

WSC GM–2

33

TEMPORARY WATER FLOOD PIPELINE

WATER FLOOD INTAKE & PUMPING INSTALLATION

Gunnison River

South Fork

SCALE

200' 0 200' 400'

CONTOUR INTERVAL 40FT.

PLAN VIEW - SUBSTATION No.3 FACILITIES SITE MAP

E 55,000 E 55,500

CROSS CUT 56 CROSS CUT 57

N 6,000

U.S. GOVT. OXBOW

150'

SS–1 SS–2 SS–3 SS–4

TOPSOIL PILE

ELECTRICAL UTILITY BOREHOLE

OXBOW MINING LLC #1 BOREHOLE

SEDIMENT POND

BACKFILLED VENTILATION SHAFT

CULVERT A

18" CMP 18" CMP

OLD HIGHWAY 133

EXISTING POWERLINE

N

SCALE

100 0 50' 100'

SCALE: 1" = 50'

LEGEND

- PERMIT BOUNDARY
- PROPERTY LINE
- MINE WORKING PROJECTIONS
- DITCH

MAP KEY

LEGEND

- PERMIT BOUNDARY
- DITCH
- CULVERT
- BERM
- UTILITIES
- STREAM
- UNPAVED ROAD
- PAVED ROAD
- NEW/MODIFIED ROADS
- JEEP ROADS

Note: Original Mapping Information Provided By OXBOW MINING LLC

PROFESSIONAL ENGINEER'S STATEMENT

I, Thomas E Leidich, state that the changes in revision, TR–70 dated 04/11 was prepared under my supervision and all the information presented is true and correct to the best of my knowledge and information.

4/19/11 Date

Thomas E Leidich CO P.E. # 31459

COLORADO REGISTERED THOMAS E. LEIDICH 31459 PROFESSIONAL ENGINEER

REV. No.	REVISIONS	DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
5	TR–70	4/11	Leidich	Leidich	Kiger
4	MR58 Culvert CG–1 Design	7/01	Keuscher	Bever	Leidich
3	PR–04 Responses	5/01	Leidich	Bever	Leidich
2	Issued for Oxbow MR–57/TR–38 Revision	3/01	Nettleton	Gates	Leidich
1	Issued for MR–56	3/13/01	Keuscher	Conrath	Nettleton
0	Issued for PR–04	8/00	Keuscher	Conrath	Nettleton

RECEIVED APR 15 2011 Division of Reclamation, Mining and Safety

OXBOW Carbon & Minerals, Inc. Elk Creek Mine

P.O. Box 535 Somerset, CO. 81434

PROJECT: PERMIT REVISION PR–04

DRAWING TITLE: GENERAL FACILITIES

C-1981-022 MR101 01-39-13

MONTGOMERY WATSON

Sheet 4 Of 6 Sheets

SCALE: AS SHOWN

DRAWING No. 2.05–M1

AutoCAD FILE: General Facilities 2-05-M1_TR70 PROJECT NUMBER: 1342821.01190600

FAN DATA

MAIN FAN

	Fan #3
LOCATION	#3 SUBSTATION SHAFT
MANUFACTURER	JEFFREY MINING PRODUCTS
MODEL	8HUA108
TYPE	Vane Axial
SIZE	108" Diameter
SPEED	1,200 R.P.M.
WATER GAUGE	5.5 inches
AIR VOLUME	297,600 C.F.M.
BLADE SETTING	4B-5S
HORSE POWER	2250 H.P.
MAXIMUM AMP.	600 AMP 3Ø
VOLTAGE	2300 V.A.C.

LOCATION SYMBOL

LEGEND

HORIZONTAL SLIP ZONE
INTAKE AIR SHAFT
RETURN AIR SHAFT
OVERCAST
STEEL SETS/ARCHES
FEE COAL BOUNDARY
SECTION LINES
CONVEYOR BELT
COAL OUTCROP
ROOF FALL
ROOF FALL (Cleaned)
CURTAIN
COAL EXTRACTED (FLOOR)
INTAKE AIR
RETURN AIR
POWER TRANSFORMER
WATER PUMPING STATION
CO-MONITORING POINT
MAN DOOR (LEFT OPEN)
PRIMARY INTAKE ESCAPE
ALTERNATE ESCAPEWAY
DAM
STOPPING
PERMANENT MINE SEAL
REGULATOR
MAN DOOR
EQUIPMENT DOOR
SUMP
FAULTS
BURN LINE
DRILL HOLES
LEASE COAL BOUNDARY COC-53510
WING CURTAIN OR VENTILATION PIPE
STANDING WATER
EVALUATION POINT
IN-MINE METHANE DRAINAGE

NOTES:

1. All areas of the Sanborn Creek Mine have been sealed.
2. Mine elevations shown are roof elevations.
3. Dip of the coal seam is 5%.
4. Strike of the coal seam trends from North to N40E.

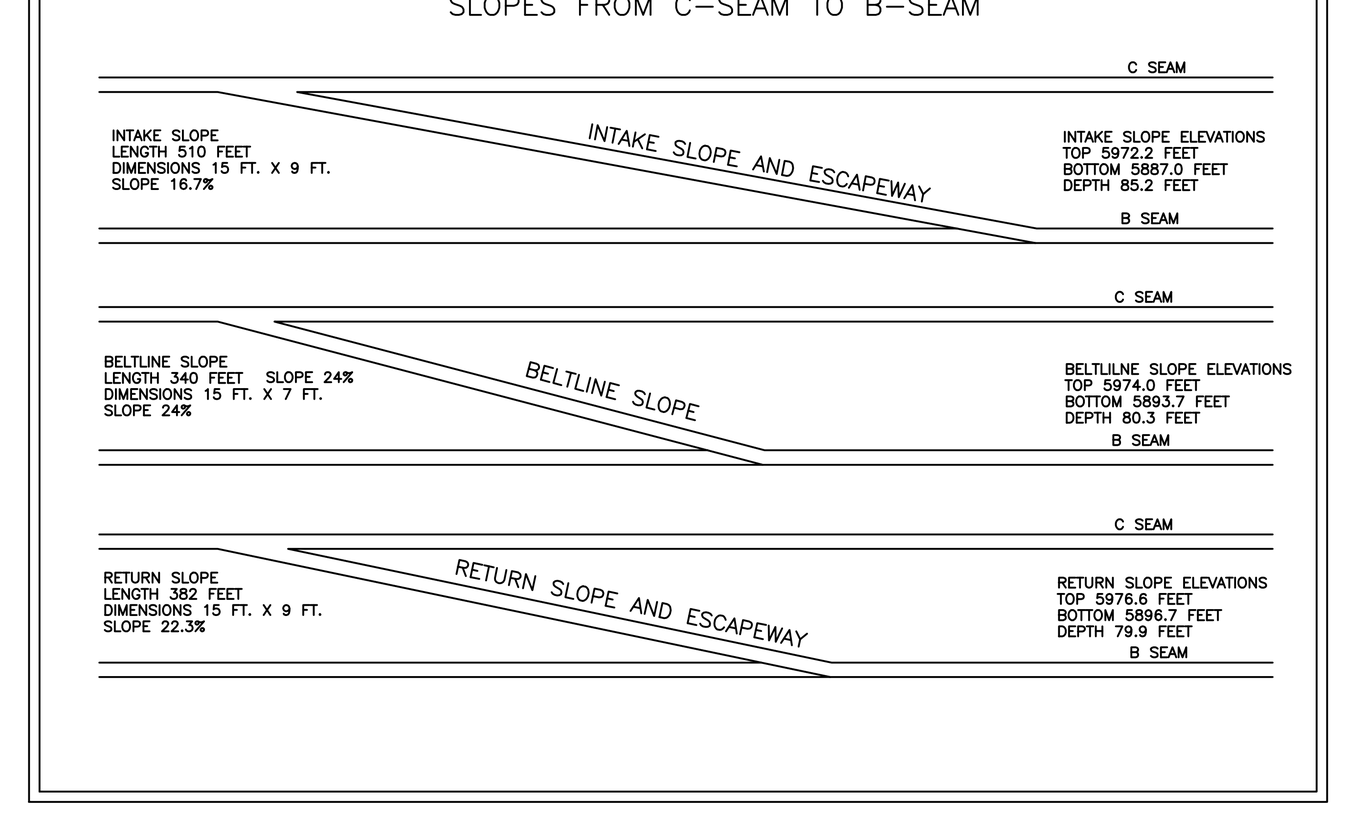
NOTES:

1-ALL ELEVATIONS ARE ROOF ELEVATIONS.
2-THERE ARE NO PRODUCING OIL OR GAS WELLS ON PROPERTY
3-AVERAGE HEIGHT IN C-SEAM HAULAGE IS 7.1'
AVERAGE HEIGHT IN B-SEAM HAULAGE IS 8.1'
4-COORDINATES ARE BASED ON THE COLORADO COORDINATE SYSTEM, CENTRAL ZONE, 1927 NORTH AMERICAN DATUM.
5-ELEVATIONS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM.
6-COORDINATES ARE NOT ADJUSTED TO MEAN SEA LEVEL.
7-MAXIMUM OVERBURDEN 2600'.
8-OLD E SEAM WORKINGS OVERLIE B SEAM 460 FEET.
9-OLD D SEAM WORKINGS OVERLIE B SEAM 260 FEET.
10-OLD C SEAM WORKINGS OVERLIE B SEAM 60 FEET.
11-AVERAGE HEIGHT IN C-SEAM BELT LINE IS 8.1'
AVERAGE HEIGHT IN B-SEAM BELT LINE IS 8.2'
12-THERE ARE NO ACTIVE WORKING SECTIONS OR MMU'S.

I, BENJAMIN L. GODWIN, A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF COLORADO DO HEREBY CERTIFY THAT THIS MAP OF THE SANBORN CREEK MINE WAS PREPARED UNDER MY SUPERVISION, AND THAT THE MINE IS ACCURATELY REPRESENTED ON THE MAP TO THE BEST OF MY KNOWLEDGE.

BENJAMIN L. GODWIN PE 34286 DATE

SLOPES FROM C-SEAM TO B-SEAM



OXBOW MINING LLC	P.O. BOX 535 SOMERSET, CO. 81434
DES.	**MSHA I.D. #** SANBORN CREEK MINE 05-04452
DRW. BLG	VENTILATION MAP B-SEAM and C-SEAM Responsible Person: Jim Cooper Executive Vice President
Date: Mar. 12 2003	E:\Draw\Ventilation\Somer Vent Apr 2003.dwg
	Scale: 1" = 300' — Sheet 1 of 1

"A GULCH" STEEP-SLOPE RECLAMATION

"Gulch A" is a steeply sloping, south-facing gulch located east of the Sanborn Creek Mine portals. The area was disturbed in the spring of 1999 for fire-suppression and fire monitoring activities within the Sanborn Creek Mine. Approximately 2800 feet of roads and four drill pad construction were followed by the completion of seven boreholes drilled to the Sanborn Creek Mine workings. The boreholes were used for monitoring the mine atmosphere, water injection and water pumping.

The reclamation of these features was completed in the fall of 2003 by Rundle Construction, an earthmoving contractor from Hotchkiss, Colorado. The reclamation of these features presented tough challenges due to the limited space within which to work and very steep slopes.

The project consisted of borehole sealing with concrete, removal of excess protruding steel casing, and drill pad and access road regrading to approximate original contour using track mounted excavators. In order to provide for seedbed and erosion control features, the final slopes were left in a semi-rough condition with furrows, pits and ridges left on contour. Rocks encountered during the regrading were placed in the reclaimed natural ephemeral drainages to provide for erosion control.

The approved seed mix was broadcast seeded onto the slopes followed by installation of a coconut erosion control blanket.

The reclamation efforts were recently recognized by the Colorado Mining Association (CMA) and the Colorado Division of Minerals and Geology on February 4, 2005 at the CMA 107th National Western Mining Conference & Exhibition. The awards showcase the very best in Colorado mining and reclamation, safety and pollution prevention.

The text of the award was as follows:

"2004 COAL MINE STEEP-SLOPE RECLAMATION

OXBOW MINING, LLC SANBORN CREEK & ELK CREEK MINES

The company was recognized for outstanding road and drill pad reclamation work in the steep canyon area known as A Gulch. A Gulch is a steeply sloping, south-draining gulch east of the Sanborn Creek Mine portals. The area was disturbed in the spring of 1999 for fire-suppression activities within the Sanborn Creek Mine. The reclamation of these features presented challenges due to the limited space within which to work, an Oxbow has managed the project to ensure excellent backfilling and hill slope stabilization.

Accepting the award for Oxbow Mining LLC were Jim Kiger, Environmental Coordinator, Randy Litwiller, Mine Manager, and Lance Rundle, Rundle Construction."

EXHIBIT 2.04-E3

Geologic Information, Item 9
Borehole Abandonment Information

Submitted August 2010 – MR-91

GVB-LW03-01, 02,
GVB-LW04-01, 02, 03
GVB-LW07-02, 03, 04
GVB-LW08-01, 02, 03, 04,
GVB-LW09-01, 01B, 02, 03, 04, 05
GVB-LW10-01, 02, 03, 03B, 03C,
GVB-LW11-01A, 01B, 02, 03
GVB-LW12-01

Submitted December 2010 – MR-94

DG1
DW1
D2B2
D2B2A
D2B2B
VB-01S-01
VB-01S-01 Utility
GVB-LW15-03
GVB-LW15-04
GVB-LW15-05
GVB-LW15-06
GVB-LW15-07

Submitted December 2012 – MR-102

GVB-LW10-04
GVB-LW10-05
GVB-LW15-01A
GVB-LW15-01B
GVB-LW15-02
GVB-LW15-08
GVB-LW16-01B, 01C, 01D, 01E
GVB-LW16-02, 02B, 02C
GVB-LW16-03
GVB-LW16-04, 04B
GVB-LW16-05B, 05C
GVB-LW16-06
GVB-LW16-07, 07B, 07C
GVB-LW17-01A, 01B, 01C
GVB-LW17-02, 02C
GVB-LW17-03
GVB-LW17-04, 04B, 04C,
GVB-LW17-05B
GVB-LW17-06, 06B
GVB-LW17-07
GVB-LW17-08, 08C
GVB-LW17-09
GVB-LW18-03B
GVB-LW18-07
GVB-LW19-01A
GVB-LW19-03

Submitted January 2015 – MR-106

GVB-LW16-05
GVB-LW17-05

Submitted October 2015 – MR-107

Mine Dewater Boreholes: Dewater I, Dewater II
Mine Recovery Gas Monitor Boreholes: TGBMPA, TGA, HGA, 5B, HGBMP
GVB-16-08
GVB-17-02B, 06C
GVB-18-01B, 02, 02B, 03, 04, 04B, 04C, 05, 06, 07B, 08, 09
GVB-19-01B, 01C, 01D, 02, 02B, 03B, 04, 04B, 05, 06, 07, 08, 09

Submitted December 2017 – MR-108

CBM-1,2,3,4,5,6,7,8,9,10,11,12,13,14

Submitted August 2020 – MR-112

ECM: 10-68, 69, 70, 71, 72, 73, 74, 75, 76
TC-1 WELL ABANDONMENT REPORT, TC-2 WELL OWNERSHIP TRANSFER
GVB-16-01, GVB-17-08B, GVB-06-02, GVB-12-02, GVB-12-03, GVB-18-01A
SCM-GM1, SCM-GM2, SCM-GM3, SCM-GM4, SCM-WF1, WSC GM-1, WSC GM-2, WSC GM-3, WSC WF-1

Geologic Information, Item 9
Borehole Abandonment Information
A Gulch and C Gulch Emergency Hole Information

HOLE	LOCATION	DRILLED	HOLE ABANDONED PAD AND ROAD RECLAIMED
SCM-GM1	A GULCH	SPRING 1999	FALL 2003 BY RUNDLE CONSTRUCTION
SCM-GM2	A GULCH	SPRING 1999	FALL 2003 BY RUNDLE CONSTRUCTION
SCM-GM3	A GULCH	SPRING 1999	FALL 2003 BY RUNDLE CONSTRUCTION
SCM-GM4	A GULCH	SPRING 1999	FALL 2003 BY RUNDLE CONSTRUCTION
SCM-WF1	A GULCH	SPRING 1999	FALL 2003 BY RUNDLE CONSTRUCTION
			PAD AND ROAD RECLAIMED
WSC-GM1	A GULCH	NOT DRILLED	FALL 2003 BY RUNDLE CONSTRUCTION
WSC-GM2	A GULCH	NOT DRILLED	FALL 2003 BY RUNDLE CONSTRUCTION
WSC-GM3	C GULCH	NOT DRILLED	FALL 2003 BY RUNDLE CONSTRUCTION
WSC-WF1	A GULCH	NOT DRILLED	FALL 2003 BY RUNDLE CONSTRUCTION