



April 24, 2024

Miranda Kawcak
Twentymile Coal, LLC
29515 Routt County Road No. 27
Oak Creek, CO 80467

RE: Foidel Creek Mine- File No. C-1982-056, Minor Revision No. 325 (MR325), Adequacy Review #2

Dear Miranda Kawcak:

On April 22, 2024, the Division of Reclamation, Mining and Safety (Division) received your adequacy response letter for MR325 at the Foidel Creek Mine, C-1982-056. The Division has reviewed the above referenced adequacy review response letter and material submitted. The following is a list of the adequacy review items from the Division's April 12, 2024, first adequacy review letter followed by the response provided by Twentymile Coal, LLC. If additional information or revision is required, it will be noted. If an item is resolved, that will be indicated.

1. The cover letter submitted with MR325 states that a short 200-foot access road will need to be constructed to access the new WC Mains Utility Borehole site from pre-existing access roads. Additionally, a 900-foot access road will need to be constructed to access the possible 6 East Utility borehole site. Please specify by what means existing two track roads will be upgraded and please specify what materials the construction of any new access roads will require. i.e. Will gravel be used to improve access roads / create new roads? Or will all access roads and improved roads remain only as dirt roads?
a) The new construction of access roads will require an 8-inch layer of gravel to be placed on the road to allow for a sturdy base for the equipment accessing the site. Topsoil will be stripped from the new construction areas and stockpiles.
*b) The existing roads have some gravel but not enough to withstand the traffic of the larger equipment and would not hold up well in wet conditions. TC will place gravel in locations necessary to keep the road passible for all equipment. Since the roads are already in place no topsoil will not be salvaged from these areas. The road improvements will remain in place and not be removed through the reclamation process. **Resolved.***
2. Will the railroad crossing to be installed by Union Pacific also be removed by Union Pacific once final reclamation of the access road to 6 East is completed? Or will this be part of the mine's final reclamation costs? *a) The railroad crossing will be installed by Union Pacific and will have a life with the railroad. The landowner has requested that the crossing remain in place once the site is reclaimed to allow additional access to his property. **Resolved.***

The MR325 cover letter requests that both new borehole sites be certified as small area exemptions (SAE). While the borehole pads meet the size and drainage type requirements for SAE pursuant to Rule 4.05.2(3)(b)(i), the Division requires a technical demonstration that runoff from these areas will not breach effluent standards. A SEDCAD demonstration is the Division's preferred method, as similar



demonstrations have been completed previously for other boreholes onsite. However, a RUSLE equation may also be used. *a) A SedCAD demonstration has been completed for each site and is submitted with this response. The 6E site has a large watershed that will require diversion ditches to divert the water around the site and not contribute to the stormwater flows of the disturbed area. The WC Mains Site is at the top of a watershed and has no area reporting through the site and therefore no diversion ditches will be required and the SedCAD demonstration is relatively short. Resolved.*

- 1. The Division has calculated a reclamation cost estimate for MR325 based on the above adequacy review responses. A copy of the estimate has been provided with this letter. The Division requests that Twentymile Coal, LLC review this calculation and submit any questions before the application decision date.**

This letter shall not be construed to mean that there are no other technical deficiencies in your application. The Division will review your application to determine whether it is adequate to meet the requirements of the Act after submittal of all required items. The Division's proposed decision date for this revision is currently set for April 26, 2024. If you have any questions, please contact me at (720) 868-7757 or hunter.ridley@state.co.us.

Sincerely,
Hunter C. Ridley



Environmental Protection Specialist
CC: Zach Trujillo, DRMS

COST SUMMARY WORK

Task description: WC Mains and 6E Boreholes

Site: Foidel Creek Mine

Permit Action: MR325

Permit/Job#: C1982056

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 4/12/2024

County: Routt

Filename: 000

User: HR1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Plug & Seal WC Mains and 6E Boreholes	BOREHOLE	1	28.00	\$13,486
002	Regrade borehole pads and access roads	GRADER	1	4.43	\$704
003	Replace topsoil on pads and access roads	DOZER	1	37.73	\$16,098
004	Revegetation of WC Mains and 6E Boreholes	REVEGE	1	1.84	\$1,748
<u>SUBTOTALS:</u>				72	\$32,036

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 36.00
Profit: 10.00

Total = \$647
Total = \$336
Total = \$2,343
Total = \$3,204

TOTAL O & P = \$6,530

CONTRACT AMOUNT (direct + O & P) = \$38,566

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0
Engineering work and/or contract/bid preparation: 4.25
Reclamation management and/or administration: 6.20

Total = \$0
Total = \$1,639
Total = \$2,391

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$10,560

TOTAL BOND AMOUNT (direct + indirect) = \$42,596

BOREHOLE SEALING WORK

Task description: Plug & Seal WC Mains and 6E Boreholes

Site: Foidel Creek Mine

Permit Action: MR325

Permit/Job#: C1982056

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 4/12/2024

County: Routt

Filename: 001

User: HR1

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Borehole marker	Borehole location/identification marker (EA, material cost only)	NA	NA	2.00	EA	\$39.00	\$78.00
Seal WC Mains Utility BH	Portland cement grout (Bag, material cost only...94 lb. bag)	8.00"	1600	124.00	bag	\$19.95	\$2,473.80
Borehole plugs	PVC plug - 8 in. diameter borehole	8.00"	NA	2.00	EA	\$87.55	\$175.11
Seal 6E Utility Borehole	Portland cement grout (Bag, material cost only...94 lb. bag)	8.00"	1200	93.00	bag	\$19.95	\$1,855.35
Drill Rig and Labor	SCHRAMM T450WS	NA	NA	16.00	EA	\$522.23	\$8,355.68
Water truck	Water Tanker, 2,500 Gal.	NA	NA	16.00	EA	\$34.27	\$548.32

Job Hours: 28.00

Total Cost: \$13,486.00

MOTOR GRADER WORK

Task description: Regrade borehole pads and access roads

Site: Foidel Creek Mine

Permit Action: MR325

Permit/Job#: C1982056

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 4/12/2024

County: Routt

Filename: 002

User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 12M

Horsepower: 158

Ripper Attachment: _____

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$74.98	NA
Operating Cost/Hour:	\$55.26	100
Ripper Ownership Cost/Hour:	\$0.00	NA
Ripper Operating Cost/Hour:	\$0.00	
Operator Cost/Hour:	\$28.56	NA
Total Unit Cost/Hour:	\$158.80	
Total Fleet Cost/Hour:	\$158.80	

MATERIAL QUANTITIES

Total Area to be graded or ripped: 5.50 acres

Source of estimated acreage: MR325 Cost est.

HOURLY PRODUCTION

Average Grader Speed:	<u>1.50</u>	mph
Selected Application:	<u>Finish grading (0-2.5 mph) - 1.5</u>	
Selected Blade Angle:	<u>-1</u>	degrees
Effective Blade Length:	<u>0.00</u>	feet
Width of blade overlap per pass:	<u>2.00</u>	feet
Net grading or ripping width per pass:	<u>7.58</u>	feet
Unadjusted Hourly Unit Production:	<u>1.3782</u>	acres/hour

Job Condition Correction Factors

Site Altitude: 6700 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.90</u>	(1sh/d, fav.)
Net Correction:	<u>0.9000</u>	multiplier

Adjusted Hourly Unit Production: 1.2404 acres/Hour

Adjusted Hourly Fleet Production: **1.2404** acres/Hour

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **4.43** Hours

Unit cost: \$128.03 per acre Total job cost: **\$704**

BULLDOZER WORKTask description: Replace topsoil on pads and access roadsSite: Foidel Creek MinePermit Action: MR325Permit/Job#: C1982056**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 4/12/2024County: RouttFilename: 003User: HR1Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$426.60Total Fleet Cost/Hour: **\$426.60****MATERIAL QUANTITIES**Initial Volume: 8,873Swell factor: 1.000Loose volume: **8,873 LCY**Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 250 feetUnadjusted hourly production: 377.8 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: 5 %Average site altitude: 6,700 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6224

Adjusted unit production: 235.14 LCY/hr

Adjusted fleet production: **235.14** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.814/LCY

Total job time: **37.73** Hours

Total job cost: **\$16,098**

REVEGETATION WORKTask description: Revegetation of WC Mains and 6E BoreholesSite: Foidel Creek MinePermit Action: MR325Permit/Job#: C1982056**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 4/12/2024County: RouttFilename: 004User: HR1Agency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alfalfa - Common	0.21	1.01	\$0.54
Orchardgrass - Elsie	0.48	5.95	\$1.49
Meadow Brome - Regar	0.40	0.37	\$1.59
Smooth Brome - Lincoln	0.77	2.56	\$2.56
Intermediate Wheatgrass - Rush	1.52	3.25	\$4.26
Pubescent Wheatgrass - Greenleaf	1.52	3.14	\$5.55
Slender Wheatgrass - Native	1.86	6.79	\$8.60
Milk Vetch, Cicer - Lutana	0.24	0.80	\$1.97
Timothy - Climax	0.39	11.19	\$0.62

Desert Wheatgrass	1.14	2.88	\$5.70
Totals Seed Mix	8.53	37.94	\$32.87

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
Total Seed Application Cost/Acre	\$232.00

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
Totals Nursery Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres:	5.5	Cost /Acre:	\$264.87
Estimated Failure Rate:	20%	Cost /Acre*:	\$264.87
*Selected Replanting Work Items:	SEEDING		
Initial Job Cost:	\$1,456.79		
Reseeding Job Cost:	\$291.36		
Total Job Cost:	\$1,748		
Job Hours:	1.84		