

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

Phone: (303) 866-3567

FAX: (303) 832-8106



May 3, 2012

Garth Cooke
PO Box 95
Warne, NC 28909

Re: Iris Project, NOI P-2012-003, Technical Responses Sufficient, Need for Financial Warranty.

Dear Mr. Cooke,

I have reviewed the technical responses submitted by you and by your consultant, Charles Ponchak, and have determined that there are no further issues to be addressed. The responses submitted nearly simultaneously by you and Mr. Ponchak contained information that did not agree on all details. Rather than consider the differences to be revisions to the NOI, this office will consider your responses to take precedence. Specifically, the differing details were (a) drill hole depth, and (b) number of drill holes. We used a drill hole depth of 1,000 feet, and one drill hole open at a time, for our bond estimate. We will approve up to six drill holes at the proposed locations for this initial NOI filing; if additional drill holes or different locations are desired, you may submit a request for modification to this NOI.

The one remaining deficiency to be addressed before you may commence with your project is that of submitting an acceptable financial warranty. The preliminary reclamation cost estimate, totaling \$6,113, is shown in the enclosed packet. Please review these costs and notify me promptly if you see any errors or omissions. You will note that the drill hole closure task comprises the majority of the total costs. Please be reminded that these costs are up-to-date and reflect what the state would incur if a reclamation contractor had to be hired; your own reclamation costs will likely be much lower.

This is your notice to submit an appropriately executed financial warranty to the Division, in the amount shown above if there are no changes, within 60 days of this letter. Failure to submit a financial warranty by that date may result in the Division terminating the NOI. Financial warranty forms are available on the Division's website: www.mining.state.co.us. For all questions regarding the forms please contact Barbara Coria at the Division's Denver Office (see address and phone in letterhead, above).

For all other questions I may be reached at the Division's Durango Field Office: 691 CR 233, Room A-2, Durango, CO 81301; telephone 970-247-5193. I look forward to meeting you and inspecting the project site this year.

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Garth Cooke, P-2012-003

May 3, 2012

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Sincerely,



Bob Oswald

Environmental Protection Specialist

Encl: Reclamation cost estimate, dated 5/3/12.

Cc(w/encl): Charles Ponchak, 15292 6050 Road, Montrose, CO 81403

Ec(w/o encl): Steve Shuey, DRMS Grand Junction
Barbara Coria, DRMS Denver

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COST SUMMARY WORK

Task description: Cost summary

Site: Iris

Permit Action: New NOI

Permit/Job#: P2012003

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 5/3/2012

County: Saguache

Filename: P003-000

User: RCO

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Close and seal drill hole	BOREHOLE	1	16.00	\$3,926.05
002	Remove drilling debris	DEMOLISH	1	1.00	\$8.02
003	Grade drill sites and roads	LOADER	1	0.43	\$37.00
004	Haul reclamation equipment to and from site	MOBILIZE	1	4.66	\$1,078.05
005	Seeding bare areas with approved seed mix	NA	1	1.00	\$100.00
<u>SUBTOTALS:</u>				23.09	\$ \$5,149.12

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 0.00
Profit: 10.00

Total = \$104.01

Total = \$54.07

Total = \$0.00

Total = \$514.91

TOTAL O & P = \$672.99

CONTRACT AMOUNT (direct + O & P) = \$5,822.11

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00
Engineering work and/or contract/bid preparation: 0.00
Reclamation management and/or administration: 5.00

Total = 0.00

Total = \$0.00

\$291.11

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$964.10

TOTAL BOND AMOUNT (direct + indirect) = \$6,113.22

BOREHOLE SEALING WORK

Task description: Close and seal drill hole

Site: Iris

Permit Action: New NOI

Permit/Job#: P2012003

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 5/3/2012

County: Saguache

Filename: P003-001

User: RCO

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Partial backfill with cuttings	Manual, assume 50% of depth	4	500	1.00	EA	\$100.00	\$100.00
Grout drill hole to collar	Portland cement grout - 4 in. (labor, equip, materials)	4	500	500.00	LF	\$7.65	\$3,826.05

Job Hours: 16.00

Total Cost: \$3,926.05

Note: NOI project is approved for several drill holes, but only one will be open at a time. Each drill hole will be completely closed and sealed before the next one is opened.

DEMOLITION WORK

Task description: Remove drilling debris

Site: Iris

Permit Action: New NOI

Permit/Job#: P2012003

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 5/3/2012

County: Saguache

Filename: P003-002

User: RCO

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 91.30 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Misc debris, no contaminants	Assume 5 cy	Excavate disposal pit with dozer (includes completed pit backfilling/grading)	5.00	CY	\$1.53	\$7.64
Backfill, bury debris	5 cy	Push demolished materials/rubble/debris into pit - Max. 50 ft. push	5.00	CY	\$0.23	\$1.14

Job Hours: 1.00

Subtotal
(unadjusted): \$8.78

Total Cost
(adjusted for location): \$8.02

Note: Debris will be buried away from surface or groundwater.

WHEEL LOADER – LOAD AND CARRY WORKTask description: Grade drill sites and roadsSite: Iris Permit Action: New NOI Permit/Job#: P2012003**PROJECT IDENTIFICATION**

Task #: 003 State: Colorado Abbreviation: None
 Date: 5/3/2012 County: Saguache Filename: P003-003
 User: RCO

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: CAT 446D Horsepower: 101
 Attachment 1: ROPS Cab Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$17.87	NA
Operating Cost/Hour:	\$29.61	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$85.97	
Total Fleet Cost/Hour:	\$85.97	

MATERIAL QUANTITIES

Initial volume: 50 CCY Swell factor: 1.125
 Loose volume: 56 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.475 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.000	minutes
Adjusted Basic Cycle Time:		0.475	minutes

Rolling Resistance – Road Conditions

Haul: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0
 Return: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	100	0.00	4.00	4.00	0.0635	(Cat HB)
Return Route:	100	0.00	4.00	4.00	0.0635	(Cat HB)

Total Travel Time: 0.1269 minutes
 Total Cycle Time: 0.6019 minutes

Load Bucket Capacity

Rated Capacity: 1.50 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 1.65 LCY

Job Condition Correction FactorsSite Altitude: 9000 feet

		Source
Altitude Adj:	<u>0.95</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.79</u>	multiplier

Unadjusted Hourly Unit Production: 164.47 LCY/Hour
 Adjusted Hourly Unit Production: 129.68 LCY/Hour
 Adjusted Hourly Fleet Production: 129.68 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: 0.43 Hours
 Unit cost: \$0.663 /LCY Total job cost: \$37.00

Note: This task of minor surface grading includes all necessary removal of berms, recontouring of leveled drill site, and back-dragging piled soil materials on drill sites and/or temporary roads.

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Haul reclamation equipment to and from siteSite: IrisPermit Action: New NOIPermit/Job#: P2012003**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 5/3/2012County: SaguacheFilename: P003-004User: RCOAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER
(25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
CAT 446D	9.80	\$17.87	\$88.67	1	\$106.54	\$88.67	\$250.00

Subtotals: **\$106.54** **\$88.67** **\$250.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$78.52	1	\$78.52	\$78.52

Subtotals: **\$78.52** **\$78.52**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GUNNISON	
Total one-way travel distance:	20.00	miles
Average Travel Speed:	30.00	mph

Total Non-Roadable Mob/Demob Cost *	\$973.36
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$104.69
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.67	0.67
Return Time (Hours):	0.67	0.67
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.33	1.33

JOB TIME AND COST

Total job time:	4.67	Hours
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Total job cost:	\$1,078.05
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Note: portable cement grout mixer (on trailer or skid) and pallet of quikrete bags hauled to site on trailer.