

**STATE OF
COLORADO**

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

C1983059, Terror Creek Loadout, MR33, Reclamation Cost Estimate

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

Tue, Aug 1, 2023 at 5:01 PM

To: Doug Smith <Doug.Smith@oxbow.com>

Doug,

A draft Reclamation Cost Estimate for the activity proposed with MR-33 is attached.

The temporary building proposed with MR33 is of an unusual construction, but I have used a standard task for a non-concrete building, disposed of off-site. I've also applied a 30% discount, since there is no ductwork or internal walls (ref. RS Means, 024116.13).

I've included tasks to demolish, load, haul and dump the asphalt pad, but I've assumed that the compacted gravel can be ripped and spread on-site.

Standard indirect costs for overhead and profit are included, but the legal and engineering costs have been left out since they are covered by the site-wide estimate last updated with RN-8.

If we move ahead, MR33 will add \$383,776 to the figure of \$208,382 calculated with RN-8, giving a new minimum required surety of \$592,158. The Division currently holds a bond of \$290,000 for the site, so additional bond would need to be posted.

Please review the estimate and let me know if you concur or if you'd like to discuss it further.

Leigh Simmons
Environmental Protection Specialist

**COLORADO**
Division of Reclamation,
Mining and Safety
Department of Natural Resources

P 303.866.3567 x 8121 | C 720.220.1180 | F 303.832.8106

1313 Sherman Street, Room 215, Denver, CO 80203

leigh.simmons@state.co.us | <https://drms.colorado.gov>**MR33_RCE_1.pdf**

174K

COST SUMMARY WORK

Task description: Temporary fabric building

Site: Terror Creek Loadout

Permit Action: MR33

Permit/Job#: C1983059

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 8/1/2023

County: Delta

Filename: C059-000

User: LDS

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Demo Temporary Building	DEMOLISH	1	40.00	\$294,426
002	Demo Asphalt Pad	DEMOLISH	1	40.00	\$42,135
003	Rip and spread compacted gravel	RIPPER	1	0.80	\$380
004	Mobilize haul truck for asphalt disposal	MOBILIZE	1	1.20	\$148
<u>SUBTOTALS:</u>				82	\$337,089

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 40.40
Profit: 10.00

Total = \$6,809

Total = \$3,539

Total = \$2,629

Total = \$33,709

TOTAL O & P = \$46,687

CONTRACT AMOUNT (direct + O & P) = \$383,776

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0

Total = \$0

Engineering work and/or contract/bid preparation: 0.00

Total = \$0

Reclamation management and/or administration: 0.00

\$0

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$46,687

TOTAL BOND AMOUNT (direct + indirect) = \$383,776

DEMOLITION WORK

Task description: Demo Temporary Building

Site: Terror Creek Loadout

Permit Action: MR33

Permit/Job#: C1983059

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 8/1/2023

County: Delta

Filename: C059-001

User: LDS

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 89.80 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Demo/Dispose Temp Building (30% discount, applied through volume)	85'x240'x50'	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 30 mile haul	714,000.00	CF	\$0.46	\$327,868.80

Job Hours: 40.00

Subtotal
(unadjusted): \$327,868.80

Total Cost
(adjusted for location): \$294,426.18

DEMOLITION WORK

Task description: Demo Asphalt Pad

Site: Terror Creek Loadout

Permit Action: MR33

Permit/Job#: C1983059

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 8/1/2023

County: Delta

Filename: C059-002

User: LDS

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 89.80 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Demolish Asphalt Pad	25,400 sq ft x 8"	Pavement, bituminous, demolition only - 4 in. to 6 in. thick	3,763.00	SY	\$8.27	\$31,120.01
Load Asphalt	25,400 sq ft x 8"	Loading only, open areas (unconfined) - Track loader	627.00	CY	\$0.89	\$555.52
Haul Asphalt to landfill (Delta)	627 cu yd, 60mile haul rt	Hauling only, per mile, 12-18 CY truck - 50 mph average speed	2,100.00	MI	\$3.95	\$8,285.97
Dump Asphalt	627 cu yd	Dump fees - Building construction materials.	627.00	CY	\$11.10	\$6,959.70

Job Hours: 40.00

Subtotal
(unadjusted): \$46,921.20

Total Cost
(adjusted for location): \$42,135.24

BULLDOZER RIPPING WORK

Task description: Rip and spread compacted gravel

Site: Terror Creek Loadout Permit Action: MR33 Permit/Job#: C1983059

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 8/1/2023 County: Delta Filename: C059-003
User: LDS

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU Horsepower: 405
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$238.76	NA
Operating Cost/Hour:	\$162.29	100
Ripper Ownership Cost/Hour:	\$18.32	NA
Ripper Operating Cost/Hour:	\$8.98	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$469.65	
Total Fleet Cost/Hour:	\$469.65	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 0.58 acres Rip Depth (ft): 1.00 Volume: 936 BCY or CCY

Source of estimated quantity: MR-33

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 1.00 feet/pass
Average Ripping Width: 7.67 feet/pass
Average Ripping Length: 290.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.864 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.864 Acres/hr
Site Altitude: 5,900 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.72 Acres/hr
Adjusted Hourly Fleet Production: **0.72** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **0.81** Hours

Unit cost: \$654.804 Per acre Total job cost: **\$380**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Mobilize haul truck for asphalt disposalSite: Terror Creek LoadoutPermit Action: MR33Permit/Job#: C1983059**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 8/1/2023County: DeltaFilename: C059-004User: LDSAgency 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:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

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
Subtotals:					\$0.00	\$0.00	\$0.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 12-18 cy, 6x4	\$123.06	1	\$123.06	\$123.06
Subtotals:			\$123.06	\$123.06

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: DELTA
 Total one-way travel distance: 30.00 miles
 Average Travel Speed: 50.00 mph

Total Non-Roadable Mob/Demob Cost * \$0.00
 * two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$147.67
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.60	0.60
Return Time (Hours):	0.60	0.60
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.20	1.20

JOB TIME AND COST

Total job time: 1.20 Hours

Total job cost: \$148