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

COLORADO DIVISION OF RECLAMATION MINING & SAFETY

February 14, 2014

Ms. Katie Conrado
Meeker Sand & Gravel, Inc.
P.O. Box 1550
Meeker, CO 81641

Re: Amick Pit, Permit No. M-1979-103, Financial Warranty Increase, Revision No. SI-2

Dear Ms. Conrado:

On February 14, 2014 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to $165,588.46, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of $95,497 over the currently held bond of $70,091.00.

The Division ordered amendment of the current Financial Warranty or submittal of a new Financial Warranty reflecting the increase, within **60 days** from the date of this letter. If you wish to submit a different type of Financial Warranty, please contact Barbara Coria at (303) 866-3567 to determine the applicable form.

If you have any questions, please contact me at (970) 241-2042.

Sincerely,

Travis Marshall
Environmental Protection Specialist

Enclosure – Reclamation Cost Estimate Update, SI-2

COST SUMMARY WORK

Task description:

Site: **Amick Pit** Permit Action: SI-2 Permit/Job#: M1979103

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 2/14/2014 County: Rio Blanco Filename: M103-001
User: THM

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Establish 3H:1V slopes on existing 2H:1V slopes	DOZER	1	13.90	$2,753.37
02a	Rip compacted area prior to overburden and topsoil placement	RIPPER	1	7.32	$1,546.00
03a	Place overburden on 32 acres flat area	SCRAPER1	1	60.22	$45,465.62
04a	Place topsoil on 34 acres	SCRAPER1	1	31.79	$29,811.39
05a	Revegetate 34 acres	REVEGE	1	24.00	$49,501.03
06a	Mobilization	MOBILIZE	1	2.53	$5,932.98
			SUBTOTALS:	**139.76**	**$135,010.39**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02%	Total =	$2,727.21
Performance bond:	1.05%	Total =	$1,417.61
Job superintendent:	69.88 hrs	Total =	$4,570.85
Profit:	10.00%	Total =	$13,501.04
		TOTAL O & P =	$22,216.71
		CONTRACT AMOUNT (direct + O & P) =	$157,227.10

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	500.00	Total =	500.00
Engineering work and/or contract/bid preparation:	0.00%	Total =	$0.00
Reclamation management and/or administration:	5.00%		$7,861.36
CONTINGENCY:	0.00	Total =	$0.00

TOTAL INDIRECT COST = $30,578.07

TOTAL BOND AMOUNT (direct + indirect) = $165,588.46

BULLDOZER WORK

Task description: **Establish 3H:1V slopes on existing 2H:1V slopes**

Site: **Amick Pit** Permit Action: SI-2 Permit/Job#: M1979103

PROJECT IDENTIFICATION

Task #: 01A State: Colorado Abbreviation: None
Date: 2/13/2014 County: Rio Blanco Filename: M103-01a
User: THM

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$56.69	NA
Operating Cost/Hour:	$104.03	100
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$37.41	NA

Total unit Cost/Hour: $198.13
Total Fleet Cost/Hour: **$198.13**

MATERIAL QUANTITIES

Initial Volume: 7,259
Swell factor: 1.125
Loose volume: **8,166** LCY

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

HOURLY PRODUCTION

Average push distance: 70 feet
Unadjusted hourly production: 1,093.7 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -15 %
Average site altitude: 6,520 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor

		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5373

Adjusted unit production: 587.65 LCY/hr
Adjusted fleet production: **587.65** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.337/LCY

Total job time: **13.90** Hours
Total job cost: **$2,753.37**

BULLDOZER RIPPING WORK

Task description: **Rip compacted area prior to overburden and topsoil placement**

Site: **Amick Pit** Permit Action: SI-2 Permit/Job#: M1979103

PROJECT IDENTIFICATION

Task #: 02A State: Colorado Abbreviation: None
Date: 2/14/2014 County: Rio Blanco Filename: M103-02a
User: THM

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$63.00	NA
Operating Cost/Hour:	$104.03	100
Ripper Operating Cost/Hour:	$6.53	100
Operator Cost/Hour:	$37.41	NA
Total Unit Cost/Hour:	$210.98	
Total Fleet Cost/Hour:	**$210.98**	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 5.00 acres Rip Depth (ft): 2.00 Volume: 16,133 BCY or CCY

Source of estimated quantity: DRMS requirements

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.56	mph
Average Ripping Width:	7.08	degrees
Average Ripping Length:	500.00	feet
Average Dozer Speed:	88.00	feet
Average Maneuver Time:	0.25	feet
Production per unit area:	0.822	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.822	Acres/hr
Site Altitude:	6,520	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier
Adjusted Hourly Unit Production:	0.68	Acres/hr
Adjusted Hourly Fleet Production:	**0.68**	Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **7.33** Hours

Unit cost: $309.232 Per acre Total job cost: **$1,546.00**

SCRAPER TEAM WORK

Task description: **Place topsoil on 34 acres**

Site: **Amick Pit** Permit Action: SI-2 Permit/Job#: M1979103

PROJECT IDENTIFICATION

Task #: 04A
Date: 2/14/2014
User: THM

State: Colorado
County: Rio Blanco

Abbreviation: None
Filename: M103-04a

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 627G w/push-pull
-Dozer:	Cat D8T - 8SU
Support Equipment -Load Area:	NA
-Dump Area:	CAT 120M
Road Maintenance –Motor Grader:	CAT 120M
-Water Truck:	NA

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	100	100	NA
Ownership cost/hour:	$65.78	$56.69	NA	$22.17	$22.17	NA
Operating cost/hour:	$182.63	$104.03	NA	$41.62	$41.62	NA
Ripper op. cost/hour:	NA	$0.00	NA	$0.00	$0.00	NA
Operator cost/hour:	$30.02	$37.41	NA	$27.55	$27.55	NA
Unit Subtotals:	$278.43	$198.13	NA	$91.34	$91.34	NA
Number of Units:	2	1	0	1	1	0
Group Subtotals:	Work:	$754.99	Support:	$91.34	Maint:	$91.34

Total work team cost/hour: **$937.67**

MATERIAL QUANTITIES

Initial volume: 27,507 CCY Swell factor: 1.000
Loose volume: **27,507** LCY

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

HOURLY PRODUCTION

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 52,800 pounds
Payload Capacity: 33.00 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 15.70 LCY
Heaped Volume: 22.00 LCY
Average Volume: 18.85 LCY
Adjusted Capacity: **18.85** LCY

Cycle Time:

Scraper Loading Time: 0.90 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction: Site Altitude: 6520 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:
Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	2.00	5.00	7.00	1568	0.38

Haul Time: **0.38** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-2.00	5.00	3.00	2874	0.29

Return Time: **0.29** minutes

Total Scraper team cycle time: **2.17** minutes
Adjusted for job conditions: 865.19 LCY/Hour
Selected Number of Scrapers: 2 Scraper(s)
Adjusted single scraper team (unit) hourly production: 865.19 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **865.19** LCY/Hour

Unadjusted unit production/hour: 1,042.40 LCY/Hour
Optimal Number of Scrapers per push dozer: ______

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **31.79** Hours

Unit cost: $1.084 /LCY Total job cost: **$29,811.39**

REVEGETATION WORK

Task description: **Revegetate 34 acres**

Site: **Amick Pit** Permit Action: SI-2 Permit/Job#: M1979103

PROJECT IDENTIFICATION

Task #: 05A State: Colorado Abbreviation: None
Date: 2/14/2014 County: Rio Blanco Filename: M103-05a
User: THM

Agency 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
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$98.01
Weed control spraying (MEANS 31 31 16.13 3100)	$145.20
Total Tilling Cost/Acre	**$243.21**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.25	4.08	$2.66
Indian Ricegrass - Paloma	1.50	4.86	$13.07
Western Wheatgrass - Arriba	2.80	7.07	$10.30
Needle and Thread	1.00	2.64	$46.99
Totals Seed Mix	5.55	18.65	**$73.02**

Application

Description	Cost /Acre

Drill seeding (DRMS Cost Data)	$88.20
Total Seed Application Cost/Acre	**$88.20**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	$16.24	$16.24
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$265.00	$530.00
Total Mulch Materials Cost/Acre				**$546.24**

Application

Description	**Cost /Acre**
Crimping, with tractor {DMG survey data}	$65.89
Power mulcher (MEANS 32 91 13.16 0250)	$86.68
Weed spray, truck, non-aquatic area, nox. [DMG]	$61.49
Total Mulch Application Cost/Acre	**$214.06**

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:	34	Cost /Acre:	$1,164.73
Estimated Failure Rate:	25%	Cost /Acre*:	$1,164.73
*Selected Replanting Work Items:	TILLING,SEEDING,MULCHING		

Initial Job Cost:	**$39,600.82**
Reseeding Job Cost:	**$9,900.21**
Total Job Cost:	**$49,501.03**
Job Hours:	**24.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilization**

Site: **Amick Pit** Permit Action: SI-2 Permit/Job#: M1979103

PROJECT IDENTIFICATION

Task #: 06A State: Colorado Abbreviation: None
Date: 2/14/2014 County: Rio Blanco Filename: M103-06a
User: THM

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck 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 D8T - 8SU	47.71	$56.69	$117.55	1	$174.24	$117.55	$250.00
Cat 627G w/push-pull	43.48	$65.78	$117.55	2	$366.66	$235.10	$500.00
CAT 120M	15.53	$22.17	$88.67	2	$221.69	$177.34	$500.00
Drill/Broadcast Seeder with Tractor	25.00	$39.59	$88.67	1	$128.26	$88.67	$250.00
Power Mulcher (Reinco M90)	6.00	$7.03	$88.67	1	$95.70	$88.67	$250.00
				Subtotals:	**$986.55**	**$707.33**	**$1,750.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	$15.34	2	$30.68	$30.68
		Subtotals:	**$30.68**	**$30.68**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	MEEKER	
Total one-way travel distance:	4.00	miles
Average Travel Speed:	30.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$5,924.80	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$8.18	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.13	0.13
Return Time (Hours):	0.13	0.13
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.27	0.27

JOB TIME AND COST

Total job time: **2.53** Hours

Total job cost: **$5,932.98**