



COLORADO

**Division of Reclamation,
Mining and Safety**

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

January 25, 2016

Mr. David Felderhol
Zephyr Gold USA Ltd
1959 Upper Water St.
Halifax, Nova Scotia B3J 3N2
Canada

**Re: Dawson Gold Project, DRMS NOI File No. P-2013-002;
Notice of Decision NOI Modification 1 (MD-1)**

Dear Mr. Felderhol:

On January 25, 2016 the Division of Reclamation, Mining and Safety accepted the modification application submitted to the Division on November 6, 2015 and the subsequent Notice of Deficiencies responses, addressing the following:

Additional boreholes and pads.

The revised estimated liability amount of \$51,275.00 exceeds the \$13,391.00 performance bond currently held. Please submit additional bond in the amount of \$37,884.00. You may not proceed with the activities proposed in the modification until the additional bond is received and approved by the Division.

If you have any questions, please contact me (303-866-3567 ext. 8169).

Sincerely,

Timothy A. Cazier, P.E.
Environmental Protection Specialist

Enclosure: Financial Warranty Cost Estimate

ec: Tony Waldron, DRMS (w/o encl.)
Wally Erickson, DRMS (w/o encl.)
Barbara Coria, DRMS (w/o encl.)
Angela Bellantoni, PhD, EAI
Stephanie Carter, BLM
DRMS file



COST SUMMARY WORK

Task description: Cost Summary

Site: Dawson Gold Project

Permit Action: MD01

Permit/Job#: P2013002

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 1/5/2016

County: Fremont

Filename: P002-000

User: TC1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
010	Drill Hole Sealing/Abandonment	NA	20	38.00	\$35,192.00
020	Recontour 3 pads (1,000 sqft ea)	LOADER	1	1.96	\$166.00
040	Recontour 10 x 1,700 ft Road	LOADER	1	5.31	\$449.00
050	Reveg 0.5 acres	REVEGE	1	2.00	\$870.00
060	Mob/Demob	MOBILIZE	1	3.56	\$2,698.00
061	"Intra-site" Mob/Demob	MOBILIZE	1	1.66	\$2,069.00
<u>SUBTOTALS:</u>				52.49	\$41,444

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$837.17
Performance bond:	1.05	Total =	\$435.16
Job superintendent:	26.24	Total =	\$1,972.20
Profit:	10.00	Total =	\$4,144.40
		TOTAL O & P =	\$7,388.93
		CONTRACT AMOUNT (direct + O & P) =	\$48,832.93

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	0.00	Total =	0.00
Engineering work and/or contract/bid preparation:	0.00	Total =	\$0.00
Reclamation management and/or administration:	5.00		\$2,441.65

CONTINGENCY: 0.00 Total = \$0.00

TOTAL INDIRECT COST = \$9,830.58

TOTAL BOND AMOUNT (direct + indirect) = \$51,274.58

BOREHOLE SEALING WORK

Task #: 010

20 Drill Holes (up to 3 Phases of 20 holes ea.)

Mine: Dawson Gold Project

Date: 1/6/2016

Permit no.: P-2013-002

Prepared by: TC1

Permitting action: MD-01 Bond Estimate

Source of Quantity Take-Off: Response to NOD 12/17/15

Hole	Hole (Casing) diam. (in)	Total depth (ft)	Hole volume (cf)	# Holes	Cwt of bulk cement (assuming 94 lbs of cement per 1.18 cf of hole, that is 100 lbs of cement fills 1.25 cf)	Cement cost per cwt (CIRCES)	Cement total cost	Rig setup time per hole (hr)	Rig time to fill hole (hrs/hole)	Total rig time (setup + fill) per hole (hr)	Rig w/ crew hourly rate (Circes, Reed drill, 9.0")	Total rig cost	2,500 gal water truck w/driver hourly rate (Circes)	Water truck w/ driver cost (rig fill time x truck rate)	Octoplug (Circes, \$29.28 per hole)	Cut surface casing & mark (Circes, \$6.04/ft)	% Liab.	Total cost before bond release or increment obligation	Total cost	Total rig time (setup + fill), reduced for liab. %
Uncased Exploration Drill Holes (0 - 400ft)	4	400	35	18	28	\$11.83	\$330	1.50	0.33	1.83	\$255.68	\$469	\$57.56	\$19	\$527	\$435	100%	\$32,039	\$32,039	1.83
Uncased Exploration Drill Holes (0 - 1,000ft)	4	1000	87	2	70	\$11.83	\$826	1.50	0.83	2.33	\$255.68	\$596	\$57.56	\$48	\$59	\$48	100%	\$3,153	\$3,153	2.33
										37.65 rig hours / 1 rigs 37.65 project hours						Grand Total			\$35,192	4 rig hours / 2 rigs 2 project hours

Assumptions:

Cwt of bulk cement (assuming 94 lbs of cement per 1.18 cf of hole, that is 100 lbs of cement fills 1.25 cf)

1.25

Cement cost per cwt (CIRCES) \$ 11.83

Rig setup time per hole (hr)

Rig w/ crew hourly rate (Circes, Reed drill, 9.0") \$ 255.68

2,500 gal water truck w/driver hourly rate (Circes) \$ 57.56

Octoplug (Circes, \$ depends on dia.) \$ 29.28

Cut surface casing & mark (Circes, \$/ft) \$ 6.04

WHEEL LOADER – LOAD AND CARRY WORKTask description: **Recontour 3 pads (1,000 sqft ea)**Site: **Dawson Gold Project**Permit Action: **MD01**Permit/Job#: **P2013002****PROJECT IDENTIFICATION**Task #: **020**State: **Colorado**Abbreviation: **None**Date: **1/5/2016**County: **Fremont**Filename: **P002-020**User: **TC1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **CAT 446D**Attachment 1: **ROPS Cab**Horsepower: **101**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$15.82	NA
Operating Cost/Hour:	\$31.49	100
Operator Cost/Hour:	\$37.13	NA
Total Unit Cost/Hour:	\$84.44	
Total Fleet Cost/Hour:	\$84.44	

MATERIAL QUANTITIESInitial volume: **222**

CCY

Swell factor: **1.250**Loose volume: **278**

LCY

Source of estimated volume: **Response to NOD 12/17/15**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION****Loader Cycle Time:**Unadjusted Basic Cycle Time (load, dump,
maneuver):**0.475**

minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Bank or broken material 0.04	0.040	(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:	Inconsistent operation 0.04	0.040	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.080	minutes
Adjusted Basic Cycle Time:		0.555	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:	20	3.00	4.00	7.00	0.0173	(Cat HB)
Return Route:	20	-3.00	4.00	1.00	0.0084	(Cat HB)

Total Travel Time: 0.0257 minutes
 Total Cycle Time: 0.5807 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 Factors

Site Altitude: 6800 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Unadjusted Hourly Unit Production: 170.48 LCY/Hour
 Adjusted Hourly Unit Production: 141.50 LCY/Hour
 Adjusted Hourly Fleet Production: 141.50 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: 1.96 Hours
 Unit cost: \$0.597 /LCY Total job cost: \$166

WHEEL LOADER – LOAD AND CARRY WORKTask description: **Recontour 10 x 1,700 ft Road**Site: **Dawson Gold Project** Permit Action: **MD01** Permit/Job#: **P2013002****PROJECT IDENTIFICATION**

Task #: **040** State: **Colorado** Abbreviation: **None**
 Date: **1/6/2016** County: **Fremont** Filename: **P002-040**
 User: **TC1**

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:	\$15.82	NA
Operating Cost/Hour:	\$31.49	100
Operator Cost/Hour:	\$37.13	NA
Total Unit Cost/Hour:	\$84.44	
Total Fleet Cost/Hour:	\$84.44	

MATERIAL QUANTITIES

Initial volume: **630** CCY Swell factor: **1.250**
 Loose volume: **788** LCY

Source of estimated volume: **Response to NOD 12/17/15 (assume 1 ft depth for vol.)**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): **0.475** minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Bank or broken material 0.04	0.040	(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:	Inconsistent operation 0.04	0.040	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.080	minutes
Adjusted Basic Cycle Time:		0.555	minutes

Rolling Resistance – Road Conditions

Haul: **Rutted dirt, little maintenance, no water, 1" tire penetration 4.0**
 Return: **Rutted dirt, little maintenance, no water, 2" tire penetration 5.0**

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	0	0.00	4.00	4.00	0.0000	(Cat HB)

Return Route:	0	0.00	5.00	5.00	0.0000	(Cat HB)
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Total Travel Time: 0.0000 minutes
Total Cycle Time: 0.5550 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 Factors

Site Altitude: 6800 feet

Altitude Adj:	<u>1.00</u>	Source (CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Unadjusted Hourly Unit Production: 178.38 LCY/Hour
Adjusted Hourly Unit Production: 148.05 LCY/Hour
Adjusted Hourly Fleet Production: 148.05 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: 5.32 Hours
Unit cost: \$0.570 /LCY Total job cost: \$449

REVEGETATION WORKTask description: Reveg 0.5 acresSite: Dawson Gold ProjectPermit Action: MD01Permit/Job#: P2013002**PROJECT IDENTIFICATION**Task #: 050State: ColoradoAbbreviation: NoneDate: 1/6/2016County: FremontFilename: P002-050User: TC1Agency 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
Total Tilling Cost/Acre	\$98.01

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.90	14.69	\$9.59
Indian Ricegrass - Nespar	2.00	6.47	\$14.16
Sand Dropseed	0.20	23.88	\$1.40
Little Bluestem - Pastura	2.80	16.71	\$44.27
Sideoats Grama - Vaughn	5.40	17.73	\$60.70
Bottlebrush Squirreltail	0.90	3.97	\$22.37
Needle and Thread	1.10	2.90	\$51.69
Totals Seed Mix	13.30	86.35	\$204.17

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$261.28
Total Seed Application Cost/Acre	\$261.28

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Total Mulch Application Cost/Acre	\$65.89

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: 0.5 Cost /Acre: \$1,159.35
 Estimated Failure Rate: 50% Cost /Acre*: \$1,159.35
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **\$579.68**
 Reseeding Job Cost: **\$289.84**
 Total Job Cost: **\$870**
 Job Hours: **2.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob**Site: **Dawson Gold Project**Permit Action: MD01Permit/Job#: P2013002**PROJECT IDENTIFICATION**Task #: 060State: ColoradoAbbreviation: NoneDate: 1/6/2016County: FremontFilename: P002-060User: TC1Agency 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	\$17.31	\$88.67	1	\$105.98	\$88.67	\$250.00
SCHRAMM T450BH	0.00	\$57.44	\$88.67	1	\$146.11	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00
Subtotals:					\$347.79	\$266.01	\$750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 2,500 Gal.	\$50.75	1	\$50.75	\$50.75
Subtotals:			\$50.75	\$50.75

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: CAÑON CITY
 Total one-way travel distance: 8.00 miles
 Average Travel Speed: 12.50 mph

Total Non-Roadable Mob/Demob Cost * \$2,633.45
 * two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$64.96
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.64	0.64
Return Time (Hours):	0.64	0.64
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	1.78	1.28

JOB TIME AND COST

Total job time: 3.56 Hours

Total job cost: \$2,698

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **"Intra-site" Mob/Demob**Site: **Dawson Gold Project**Permit Action: MD01Permit/Job#: P2013002**PROJECT IDENTIFICATION**Task #: 061State: ColoradoAbbreviation: NoneDate: 1/6/2016County: FremontFilename: P002-061User: TC1Agency 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	\$17.31	\$88.67	1	\$105.98	\$88.67	\$250.00
SCHRAMM T450BH	0.00	\$57.44	\$88.67	1	\$146.11	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00
Subtotals:					\$347.79	\$266.01	\$750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 2,500 Gal.	\$50.75	1	\$50.75	\$50.75
Subtotals:			\$50.75	\$50.75

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	DRILL PAD TO DRILL PAD	
Total one-way travel distance:	0.50	miles
Average Travel Speed:	3.00	mph
Total Non-Roadable Mob/Demob Cost *	\$2,052.39	
'* two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	\$16.92	
** one round trip, no haul rig:		

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.17	0.17
Return Time (Hours):	0.17	0.17
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	0.83	0.33

JOB TIME AND COST

Total job time:	1.67	Hours
Total job cost:	\$2,069	