COST SUMMARY WORK

Task description:

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 1/15/2019 County: Adams Filename: M043-000
User: JLE

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Build Phase 1 Slurry Wall	SITEMAINTENANCE	1	0.00	$190,680.00
002a	Excavate and haul liner material for Phase 2 area.	TRUCK1	1	202.80	$271,751.00
002b	Install French Drain	SITEMAINTENANCE	1	0.00	$100,000.00
002c	Dewater Phase 2 Area	PUMPING	1	744.93	$30,043.00
002d	Testing for slurry wall and liner	SITEMAINTENANCE	1	0.00	$6,000.00
003	Backfill and grade upper slopes	TRUCK1	1	86.53	$113,989.00
004	Spread 10 inches of topsoil over 37.25 acres	SCRAPER1	1	49.29	$60,361.00
005	Revegetation	REVEGE	1	43.50	$31,892.00
006	Concrete demo from plant	DEMOLISH	1	0.00	$9,768.33
007	Mobilization and Demobilization	MOBILIZE	1	4.72	$15,078.00
			SUBTOTALS:	**1131.77**	**$829,562**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$16,757.15
Performance bond:	1.05	Total =	$8,710.40
Job superintendent:	386.84	Total =	$28,258.66
Profit:	10.00	Total =	$82,956.20
		TOTAL O & P =	$136,682.41
		CONTRACT AMOUNT (direct + O & P) =	$966,244.41

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	500.00	Total =	500.00
Engineering work and/or contract/bid preparation:	4.25	Total =	$41,065.39
Reclamation management and/or administration:	5.00		$48,312.22
CONTINGENCY:	0.00	Total =	$0.00

TOTAL INDIRECT COST = $226,560.02

TOTAL BOND AMOUNT (direct + indirect) = $1,056,122.02

SITE MAINTENANCE

Task description: **Build Phase 1 Slurry Wall**

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 1/15/2019 County: Adams Filename: NA
User: JLE

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Build Phase 1 Slurry Wall	1.00	USER PROVIDED ITEM	63,560.00	SF	$3.00	$190,680.00

Job Hours: **0.00** **Total Cost**: **$190,680.00**

TRUCK/LOADER TEAM WORK

Task description: **Excavate and haul liner material for Phase 2 area.**

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #: 002A State: Colorado Abbreviation: None
Date: 1/15/2019 County: Adams Filename: M043-002a
User: JLE

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 725
-Loader:	CAT 990H
Support Equipment -Load Area:	Cat D9T - 9SU
-Dump Area:	CAT 836H
Road Maintenance –Motor Grader:	CAT 12M
-Water Truck:	Water Tanker, 10,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	50	50	25	25
Ownership cost/hour:	$55.55	$132.84	$110.70	$170.47	$30.73	$63.71
Operating cost/hour:	$40.71	$125.20	$47.73	$64.87	$7.65	$23.64
%Utilization-riper:	NA	0	50	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$12.36	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$3.94	$0.00	$0.00	$0.00
Operator cost/hour:	$25.65	$36.13	$40.23	$31.65	$45.64	$39.10
Unit Subtotals:	$121.91	$294.17	$202.60	$266.99	$84.03	$126.45
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work:	$659.90	Support:	$469.59	Maint:	$210.48

Total work team cost/hour: **$1,339.97**

MATERIAL QUANTITIES

Initial volume: 86,000 CCY Swell factor: 1.220
Loose volume: **104,920** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,800 Pounds/LCY
Description: Clay - Natural bed

Rated Payload: 52,000 Pounds
Payload Capacity: 18.57 LCY

Truck Bed (volume) Basis:

Struck Volume:	14.50	LCY
Heaped Volume:	18.70	LCY
Average Volume:	16.60	LCY
Adjusted Volume:	18.57	LCY

Final Truck Volume Based on Number of Loader Passes: **11.53** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	11.250	LCY (heaped)
Bucket Fill Factor:	1.025	Bank Clay; Earth (100%-105%) 1.025
Adjusted Capacity:	**11.531**	LCY

Job Condition Corrections: Site Altitude (ft.): 5100 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 1 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA   Maneuver: NA   Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.600 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Bank or broken material 0.04	0.040	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Small target 0.04	0.040	(Cat HB)
	Net Cycle Time Adjustment:	0.010	minutes
	Adjusted Loader Cycle Time:	**0.610**	minutes
	Net Load Time per Truck:	**0.610**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	0.610	Minutes	Adjusted for site altitude:	0.610	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	0.00	3.00	3.00	2244	0.569

Haul Time: **0.569** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	0.00	3.00	3.00	2884	0.396

Return Time: **0.396** minutes
Total Truck Cycle Time: **2.975** minutes

Loading Tool unit Production: 623.31 LCY/Hour — Adjusted for job efficiency: 517.35 LCY/Hour

Truck Unit Production: 232.56 LCY/Hour — Adjusted for job efficiency: 193.03 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 579.08 LCY/Hour
Adjusted single truck/loader team production: 517.35 LCY/Hour
Adjusted multiple truck/loader team production: **517.35** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **202.80** Hours

Unit cost: $2.590 /LCY — Total job cost: **$271,751**

SITE MAINTENANCE

Task description: **Install French Drain**

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #: 002B State: Colorado Abbreviation: None
Date: 1/15/2019 County: Adams Filename: M043-002b
User: JLE

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Install French Drain	1.00	USER PROVIDED ITEM	1.00	Total	$100,000.00	$100,000.00

Job Hours: **0.00** **Total Cost**: **$100,000.00**

PUMPING WORK

Task description: **Dewater Phase 2 Area**

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #:	002C	State:	Colorado	Abbreviation:	None
Date:	1/15/2019	County:	Adams	Filename:	M043-002c
User:	JLE				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

	Description	Quantity
Make and Model:	Centrifugal pump - 200M, 10 in.	1
Attachment 1:	Suction hose - 6 in. diam., 25 ft.	20
Attachment 2:	Discharge hose - 3 in. D., 25 ft.	20
Labor Unit 1:		0

Horsepower: 70
Shift Basis: 1 per day
Weight: 1.95 (US Tons)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$21.67	NA
Operating Cost/Hour:	$18.66	100
Operator Cost/Hour:	$0.00	NA
Total Unit Cost/Hour:	$40.33	

Total Fleet Cost/Hour: $40.33

PUMPING QUANTITIES

Initial Pond Volume:	508.50		Conversion factor:	325850.5800
Final Pond Volume:	**165,695,019.93**	gallons		
Total Pond Inflow Surface Area:	55,674	Sq. ft.	Unit inflow rate in gph/sq. ft.:	0.1758
Total Pond Inflow Volume per Hour:	9,787.49	gallons		

Source of estimated volume: DRMS Estiamte

PUMPING TIME

Maximum Pump Capacity:	200,000	gph/pump
Estimated Suction Head:	0	feet
Estimated Discharge Head:	0	feet
Total Head:	0	feet
CPB Pump Capacity:	201,000	gph/pump
Site Altitude:	5,100	feet

Adjusted Pumping Capacity:	201,000	gph
Initial Unadjusted Pumping Time:	824.35	hours
Inflow during Initial Pumping:	8,068,349	gallons
Net Unadjusted Pumping Time:	864.49	Hours
Altitude Adjustment Factor:	0.9400	(3% rule)
Pump Efficiency Factor:	0.9167	(55 min./hr.)
Total Adjusted Pumping Time:	744.93	hours

JOB TIME AND COST

Total job time: **744.93** Hours

Unit cost: $0.000173 /Gallon

Total job cost: **$30,043**

SITE MAINTENANCE

Task description: **Testing for slurry wall and liner**

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #: 002D State: Colorado Abbreviation: None
Date: 1/15/2019 County: Adams Filename: M043-002d
User: JLE

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Testing	0.00	USER PROVIDED ITEM	2.00	EA	$3,000.00	$6,000.00

Job Hours: 0.00 **Total Cost: $6,000.00**

TRUCK/LOADER TEAM WORK

Task description: **Backfill and grade upper slopes**

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #:	003	State:	Colorado	Abbreviation:	None
Date:	1/15/2019	County:	Adams	Filename:	M043-003
User:	JLE				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 725
-Loader:	CAT 990H
Support Equipment -Load Area:	Cat D9T - 9SU
-Dump Area:	Cat D9T - 9SU
Road Maintenance –Motor Grader:	CAT 12M
-Water Truck:	Water Tanker, 10,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	50	100	25	25
Ownership cost/hour:	$55.55	$132.84	$110.70	$110.70	$30.73	$63.71
Operating cost/hour:	$40.71	$125.20	$47.73	$95.46	$7.65	$23.64
%Utilization-riper:	NA	0	25	0	NA	NA
Ripper own. cost/hour:	NA	$0.00	$12.36	$12.36	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$1.97	$0.00	$0.00	$0.00
Operator cost/hour:	$25.65	$36.13	$40.23	$40.23	$45.64	$39.10
Unit Subtotals:	$121.91	$294.17	$200.63	$246.39	$84.03	$126.45
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work:	$659.90	Support:	$447.02	Maint:	$210.48

Total work team cost/hour: **$1,317.40**

MATERIAL QUANTITIES

Initial volume: 55,558 CCY Swell factor: 1.115
Loose volume: **61,947** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,100 Pounds/LCY
Description: Earth - Loam

Rated Payload: 52,000 Pounds
Payload Capacity: 24.76 LCY

Truck Bed (volume) Basis:

Struck Volume:	14.50	LCY
Heaped Volume:	18.70	LCY
Average Volume:	16.60	LCY
Adjusted Volume:	18.70	LCY

Final Truck Volume Based on Number of Loader Passes: **11.81** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	11.250	LCY (heaped)
Bucket Fill Factor:	1.050	Moist loam or sandy clay (100% - 110%) 1.050
Adjusted Capacity:	**11.813**	LCY

Job Condition Corrections: Site Altitude (ft.): 5100 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 1 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.600 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders - 0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	-0.040	minutes
	Adjusted Loader Cycle Time:	**0.560**	minutes
	Net Load Time per Truck:	**0.100**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	0.100	Minutes	Adjusted for site altitude:	0.100	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	0.00	3.00	3.00	2244	0.569

Haul Time: **0.569** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	0.00	3.00	3.00	2884	0.396

Return Time: **0.396** minutes
Total Truck Cycle Time: **2.465** minutes

Loading Tool unit Production 1,181.25 LCY/Hour Adjusted for job efficiency: 980.44 LCY/Hour
Truck Unit Production 287.53 LCY/Hour Adjusted for job efficiency: 238.65 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 715.94 LCY/Hour
Adjusted single truck/loader team production: 715.94 LCY/Hour
Adjusted multiple truck/loader team production: **715.94** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **86.53** Hours

Unit cost: $1.840 /LCY Total job cost: **$113,989**

SCRAPER TEAM WORK

Task description: **Spread 10 inches of topsoil over 37.25 acres**

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 1/15/2019 County: Adams Filename: M043-004
User: JLE

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 637G w/push-pull
-Dozer:	Cat D9T - 9SU
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	CAT 12M
-Water Truck:	Water Tanker, 10,000 Gal.

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	25	25
Ownership cost/hour:	$165.84	$110.70	NA	NA	$30.73	$63.71
Operating cost/hour:	$172.14	$95.46	NA	NA	$7.65	$23.64
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Operator cost/hour:	$45.84	$40.23	NA	NA	$45.64	$39.10
Unit Subtotals:	$383.81	$246.39	NA	NA	$84.03	$126.45
Number of Units:	2	1	0	0	1	1
Group Subtotals:	Work:	$1,014.01	Support:	$0.00	Maint:	$210.48

Total work team cost/hour: **$1,224.49**

MATERIAL QUANTITIES

Initial volume: 50,080 CCY Swell factor: 1.215
Loose volume: **60,847** LCY

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

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 81,600 pounds
Payload Capacity: 51.00 LCY

Struck Volume: 24.00 LCY
Heaped Volume: 34.00 LCY
Average Volume: 29.00 LCY
Adjusted Capacity: **29.00** LCY

Cycle Time:

Scraper Loading Time: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction: Site Altitude: 5100 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: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	625.00	-1.00	2.00	1.00	2952	0.38

Haul Time: **0.38** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	625.00	1.00	2.00	3.00	2949	0.36

Return Time: **0.36** minutes

Total Scraper team cycle time: **2.34** minutes
Adjusted for job conditions: 1,234.36 LCY/Hour
Selected Number of Scrapers: 2 Scraper(s)
Adjusted single scraper team (unit) hourly production: 1,234.36 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **1,234.36** LCY/Hour

Unadjusted unit production/hour: 1,487.18 LCY/Hour
Optimal Number of Scrapers per push dozer: ______

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **49.29** Hours

Unit cost: $0.992 /LCY Total job cost: **$60,361**

REVEGETATION WORK

Task description: **Revegetation**

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 1/15/2019 County: Adams Filename: M043-005
User: JLE

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)	$106.29
Weed control spraying (MEANS 31 31 16.13 3100)	$193.60
Total Tilling Cost/Acre	**$299.89**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	0.56	9.14	$8.32
Buffalograss - Native/Plains	3.13	3.02	$37.94
Little Bluestem - Native	0.56	3.34	$9.03
Sideoats Grama - El Reno	1.13	3.71	$11.19
Intermediate Wheatgrass - Rush	1.38	2.95	$5.30
Oats - Russel	0.56	0.17	$0.19
Slender Wheatgrass - Native	1.48	5.40	$4.26
Thickspike Wheatgrass - Critana	9.00	31.82	$52.83

Totals Seed Mix	17.80	59.54	**$129.05**

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:	43.5	Cost /Acre:	$660.94
Estimated Failure Rate:	20%	Cost /Acre*:	$361.05
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	**$28,750.89**
Reseeding Job Cost:	**$3,141.14**
Total Job Cost:	**$31,892**
Job Hours:	**43.50**

DEMOLITION WORK

Task description: **Concrete demo from plant**

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None
Date: 1/15/2019 County: Adams Filename: M043-006
User: JLE

Agency or organization name: DRMS

UNIT COSTS **Location adjustment: 101.20 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Concrete Demolition From Plant	NA	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 200 ft. push	5,940.00	SF	$1.63	$9,652.50

Job Hours: **0.00** **Subtotal (unadjusted)**: **$9,652.50** **Total Cost (adjusted for location)**: **$9,768.33**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilization and Demobilization**

Site: **Hatchery Pit** Permit Action: TR01 Permit/Job#: M2014043

PROJECT IDENTIFICATION

Task #: 007 State: Colorado Abbreviation: None
Date: 1/15/2019 County: Adams Filename: M043-000
User: JLE

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 990H	83.34	$132.84	$125.45	1	$258.29	$125.45	$250.00
Cat D9T - 9SU	66.13	$123.06	$125.45	2	$497.02	$250.90	$500.00
CAT 12M	16.01	$30.73	$88.67	2	$238.80	$177.34	$500.00
CAT 836H	54.88	$170.47	$125.45	1	$295.92	$125.45	$250.00
Centrifugal pump - 200M, 10 in.	1.95	$10.30	$88.67	1	$98.97	$88.67	$250.00
Cat 637G w/push-pull	59.59	$165.84	$125.45	2	$582.58	$250.90	$500.00
Drill/Broadcast Seeder with Tractor	25.00	$15.54	$88.67	2	$208.42	$177.34	$250.00
				Subtotals:	**$2,180.00**	**$1,196.05**	**$2,500.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Cat 725	$121.91	1	$121.91	$121.91
Water Tanker, 10,000 Gal.	$158.27	1	$158.27	$158.27
Fuel Tanker, 6x4, 210 HP	$77.51	1	$77.51	$77.51

Subtotals:	**$357.69**	**$357.69**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	DENVER	
Total one-way travel distance:	10.00	miles
Average Travel Speed:	55.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$14,947.65	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$130.07	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.18	0.18
Return Time (Hours):	0.18	0.18
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	2.36	0.36

JOB TIME AND COST

Total job time:	**4.73**	Hours
Total job cost:	**$15,078**	