

ATTACHMENT A

COST SUMMARY WORK

Task description: Cost Summary

Site: Midway Pit

Permit Action: 2015 Update

Permit/Job#: M1988018

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/7/2015

County: El Paso

Filename: M018-000

User: TC1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill 3 Ponds	DOZER	1	19.94	\$5,062.00
002	Knockdown Near Vert. West Highwalls	DOZER	1	4.79	\$1,216.00
003	Knockdown Northside Highwalls	DOZER	1	5.23	\$1,327.00
004	Place 3" Topsoil on Flattened Highwalls	SCRAPER1	1	33.30	\$9,651.00
005	Finish Grade Flattened Highwalls	GRADER	1	1.86	\$198.00
006	Reveg 25.4 Acres	REVEGE	1	80.00	\$31,870.00
007	Mob/Demob	MOBILIZE	1	4.84	\$3,914.00
<u>SUBTOTALS:</u>				149.96	\$53,238

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$1,075.41

Performance bond: 1.05

Total = \$559.00

Job superintendent: 14.98

Total = \$1,125.90

Profit: 10.00

Total = \$5,323.80

TOTAL O & P = \$8,084.11

CONTRACT AMOUNT (direct + O & P) = \$61,322.11

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

\$3,066.11

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$11,150.22

TOTAL BOND AMOUNT (direct + indirect) = \$64,388.22

BULLDOZER WORKTask description: **Backfill 3 Ponds**Site: **Midway Pit** Permit Action: **2015 Update** Permit/Job#: **M1988018****PROJECT IDENTIFICATION**

Task #: **001** State: **Colorado** Abbreviation: **None**
 Date: **10/7/2015** County: **El Paso** Filename: **M018-001**
 User: **TC1**

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

Basic Machine: **Cat D9T - 9U**
 Horsepower: **405**
 Blade Type: **Universal**
 Attachment: **NA**
 Shift Basis: **1 per day**
 Data Source: **(CRG)**

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$72.57	NA
Operating Cost/Hour:	\$142.41	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.85	NA

Total unit Cost/Hour: **\$253.83**
 Total Fleet Cost/Hour: **\$253.83**

MATERIAL QUANTITIES

Initial Volume: **14,755**
 Swell factor: **1.125**
 Loose volume: **16,599 LCY**

Source of estimated volume: **See spread sheets - assume 12 ft depth**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Average push distance: **150 feet**
 Unadjusted hourly production: **952.6 LCY/hr**

Materials consistency description: **Partly consolidated stockpile 1.1**

Average push gradient: **-10 %**
 Average site altitude: **5,400 feet**

Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)

Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8737

Adjusted unit
production: 832.29 LCY/hr
Adjusted fleet
production: **832.29** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.305/LCY

Total job time: **19.94** Hours
Total job cost: **\$5,062**

Task # 001.1 Pond Backfill Volume Estimate

Midway Pit

Pond 1 - 0.29 Acres

DRMS PERMIT NO.: M-1988-018

DATE: 10/6/2015

TIME: 11:15 AM

Stage increment: 0.5 ft

Ref. 2011 GoogleEarth map

LOOKUP TABLE		
Stage/Elev. y_i (ft)	Δy (ft)	Surface Area $f(y_i)$ (ft ²)
0.0	12	2,430.00
12.0	0.01	13,152.00
12.0	0	13,152.00

Stage/ Elevation y' (ft)	Interpolated Srf. Area $f(y')$ in ft ²	Calculated Incremental Volume (ft ³)	TOTAL STORAGE (ft ³)	TOTAL STORAGE (ac-ft)	TOTAL STORAGE (C.Y.)
0.0	2430	0.0	0	0.00	0
0.5	2877	1325.1	1,325	0.03	49
1.0	3324	1548.7	2,874	0.07	106
1.5	3770	1772.3	4,646	0.11	172
2.0	4217	1995.8	6,642	0.15	246
2.5	4664	2219.3	8,861	0.20	328
3.0	5111	2442.7	11,304	0.26	419
3.5	5557	2666.2	13,970	0.32	517
4.0	6004	2889.6	16,860	0.39	624
4.5	6451	3113.0	19,973	0.46	740
5.0	6898	3336.4	23,309	0.54	863
5.5	7344	3559.9	26,869	0.62	995
6.0	7791	3783.3	30,652	0.70	1,135
6.5	8238	4006.7	34,659	0.80	1,284
7.0	8685	4230.1	38,889	0.89	1,440
7.5	9131	4453.5	43,342	1.00	1,605
8.0	9578	4676.9	48,019	1.10	1,778
8.5	10025	4900.3	52,920	1.21	1,960
9.0	10472	5123.7	58,043	1.33	2,150
9.5	10918	5347.0	63,390	1.46	2,348
10.0	11365	5570.4	68,961	1.58	2,554
10.5	11812	5793.8	74,754	1.72	2,769
11.0	12259	6017.2	80,772	1.85	2,992
11.5	12705	6240.6	87,012	2.00	3,223
12.0	13152	6464.0	93,476	2.15	3,462

Task # 001.2 Pond Backfill Volume Estimate

Midway Pit

Pond 2 - 0.27 Acres

DRMS PERMIT NO.: M-1988-018

DATE: 10/6/2015

TIME: 11:13 AM

Stage increment: 0.5 ft

Ref. 2011 GoogleEarth map

LOOKUP TABLE		
Stage/Elev. y_i (ft)	Δy (ft)	Surface Area $f(y_i)$ (ft ²)
0.0	12	2,052.00
12.0	0.01	11,776.00
12.0	0	11,776.00

Stage/ Elevation y' (ft)	Interpolated Srf. Area $f(y')$ in ft ²	Calculated Incremental Volume (ft ³)	TOTAL STORAGE (ft ³)	TOTAL STORAGE (ac-ft)	TOTAL STORAGE (C.Y.)
0.0	2052	0.0	0	0.00	0
0.5	2457	1125.8	1,126	0.03	42
1.0	2862	1328.6	2,454	0.06	91
1.5	3268	1531.3	3,986	0.09	148
2.0	3673	1734.1	5,720	0.13	212
2.5	4078	1936.7	7,656	0.18	284
3.0	4483	2139.4	9,796	0.22	363
3.5	4888	2342.1	12,138	0.28	450
4.0	5293	2544.7	14,683	0.34	544
4.5	5699	2747.3	17,430	0.40	646
5.0	6104	2950.0	20,380	0.47	755
5.5	6509	3152.6	23,533	0.54	872
6.0	6914	3355.2	26,888	0.62	996
6.5	7319	3557.8	30,446	0.70	1,128
7.0	7724	3760.4	34,206	0.79	1,267
7.5	8130	3963.0	38,169	0.88	1,414
8.0	8535	4165.6	42,335	0.97	1,568
8.5	8940	4368.2	46,703	1.07	1,730
9.0	9345	4570.8	51,274	1.18	1,899
9.5	9750	4773.4	56,047	1.29	2,076
10.0	10155	4976.0	61,023	1.40	2,260
10.5	10561	5178.6	66,202	1.52	2,452
11.0	10966	5381.2	71,583	1.64	2,651
11.5	11371	5583.8	77,167	1.77	2,858
12.0	11776	5786.4	82,953	1.90	3,072

Task # 001.3 Pond Backfill Volume Estimate

Midway Pit

Pond 3 - 0.63 Acres

DRMS PERMIT NO.: M-1988-018

DATE: 10/6/2015

TIME: 11:10 AM

Stage increment: 0.5 ft

Ref. 2011 GoogleEarth map

LOOKUP TABLE		
Stage/Elev. y_i (ft)	Δy (ft)	Surface Area $f(y_i)$ (ft ²)
0.0	12	9,476.00
12.0	0.01	27,520.00
12.0	0	27,520.00

Stage/ Elevation y' (ft)	Interpolated Srf. Area $f(y')$ in ft ²	Calculated Incremental Volume (ft ³)	TOTAL STORAGE (ft ³)	TOTAL STORAGE (ac-ft)	TOTAL STORAGE (C.Y.)
0.0	9476	0.0	0	0.00	0
0.5	10228	4924.8	4,925	0.11	182
1.0	10980	5300.8	10,226	0.23	379
1.5	11732	5676.8	15,902	0.37	589
2.0	12483	6052.7	21,955	0.50	813
2.5	13235	6428.7	28,384	0.65	1,051
3.0	13987	6804.7	35,188	0.81	1,303
3.5	14739	7180.6	42,369	0.97	1,569
4.0	15491	7556.6	49,926	1.15	1,849
4.5	16243	7932.5	57,858	1.33	2,143
5.0	16994	8308.5	66,167	1.52	2,451
5.5	17746	8684.4	74,851	1.72	2,772
6.0	18498	9060.4	83,912	1.93	3,108
6.5	19250	9436.3	93,348	2.14	3,457
7.0	20002	9812.3	103,160	2.37	3,821
7.5	20754	10188.2	113,348	2.60	4,198
8.0	21505	10564.2	123,912	2.84	4,589
8.5	22257	10940.1	134,853	3.10	4,995
9.0	23009	11316.0	146,169	3.36	5,414
9.5	23761	11692.0	157,861	3.62	5,847
10.0	24513	12067.9	169,928	3.90	6,294
10.5	25265	12443.8	182,372	4.19	6,755
11.0	26016	12819.7	195,192	4.48	7,229
11.5	26768	13195.7	208,388	4.78	7,718
12.0	27520	13571.6	221,959	5.10	8,221

BULLDOZER WORKTask description: **Knockdown Near Vert. West Highwalls**Site: **Midway Pit**Permit Action: 2015 UpdatePermit/Job#: M1988018**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 10/7/2015County: El PasoFilename: M018-002User: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9UHorsepower: 405Blade Type: UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$72.57</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$142.41</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.85</u>	<u>NA</u>

Total unit Cost/Hour: \$253.83Total Fleet Cost/Hour: **\$253.83****MATERIAL QUANTITIES**Initial Volume: 10,236Swell factor: 1.125Loose volume: **11,516 LCY**Source of estimated volume: See spread sheets - assume 10 ft heightSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,222.9 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: -25 %Average site altitude: 5,400 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**Operator Skill: 0.750Material consistency: 1.100Source(AVG.)(CAT HB)

Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.0813

Adjusted unit
production: 2,403.62 LCY/hr
Adjusted fleet
production: **2403.62** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.106/LCY

Total job time: **4.79** Hours
Total job cost: **\$1,216**

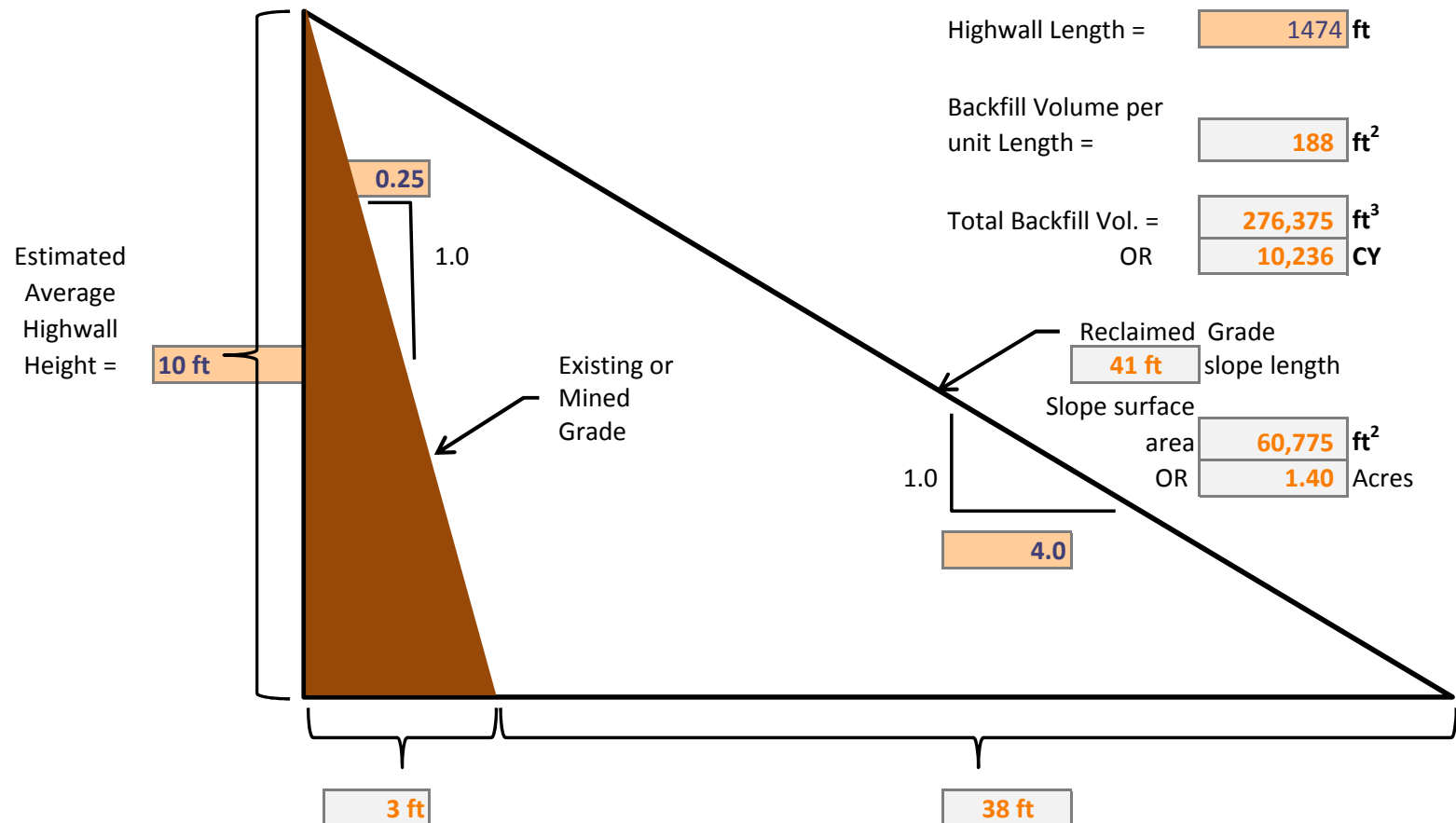
Task # 002.1 Highwall Backfill Volume Estimate

PROJECT: Midway Pit
PERMIT No.: M-1988-018
HIGHWALL LOCATION: West End - Near Vertical Walls

LEGEND

Input

Result



HIGHWALL BACKFILL VOLUME ESTIMATE

BULLDOZER WORKTask description: **Knockdown Northside Highwalls**Site: **Midway Pit**Permit Action: 2015 UpdatePermit/Job#: M1988018**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 10/7/2015County: El PasoFilename: M018-003User: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9UHorsepower: 405Blade Type: UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$72.57</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$142.41</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.85</u>	<u>NA</u>

Total unit Cost/Hour: \$253.83Total Fleet Cost/Hour: **\$253.83****MATERIAL QUANTITIES**Initial Volume: 11,172Swell factor: 1.125Loose volume: **12,569 LCY**Source of estimated volume: See spread sheets - assume 15 ft heightSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,222.9 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: -25 %Average site altitude: 5,400 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**Operator Skill: 0.750Material consistency: 1.100Source(AVG.)(CAT HB)

Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.0813

Adjusted unit
production: 2,403.62 LCY/hr
Adjusted fleet
production: **2403.62** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.106/LCY

Total job time: **5.23** Hours
Total job cost: **\$1,327**

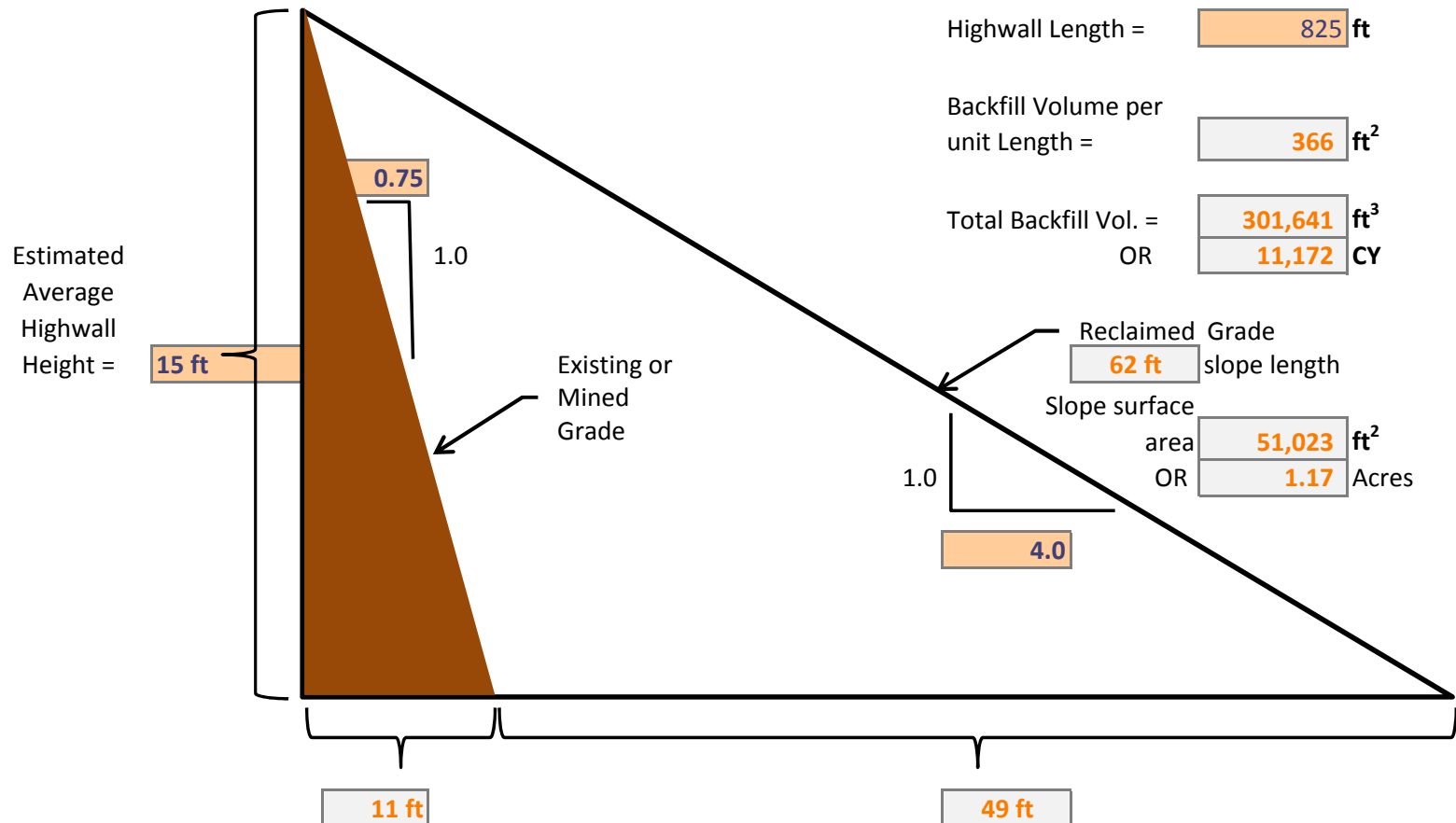
Task # 003.1 Highwall Backfill Volume Estimate

PROJECT: Midway Pit
PERMIT No.: M-1988-018
HIGHWALL LOCATION: North Side Highwalls

LEGEND

Input

Result



Highwall Length = 825 ft

Backfill Volume per unit Length = 366 ft²

Total Backfill Vol. = 301,641 ft³
OR 11,172 CY

HIGHWALL BACKFILL VOLUME ESTIMATE

SCRAPER TEAM WORKTask description: **Place 3" Topsoil on Flattened Highwalls**Site: **Midway Pit**Permit Action: 2015 UpdatePermit/Job#: M1988018**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 10/7/2015County: El PasoFilename: M018-004User: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-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	NA	NA	NA	NA	NA
Ownership cost/hour:	\$80.91	NA	NA	NA	NA	NA
Operating cost/hour:	\$169.91	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$39.02	NA	NA	NA	NA	NA
Unit Subtotals:	\$289.83	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$289.83	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$289.83****MATERIAL QUANTITIES**Initial volume: 10,350

CCY

Swell factor: 1.125Loose volume: **11,644**

LCY

Source of estimated volume: 3" depth over 2.57 acresSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 2,650 lbs/LCY
 Material description: Decomposed rock - 25% Rock, 75% Earth
 Rated Payload: 81,600 pounds
 Payload Capacity: 30.79 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: 0.80 Minutes
 Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction:

Site Altitude: 5400 feet

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

Travel Time:Road Condition: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	-5.00	8.00	3.00	2227	0.97

Haul Time: 0.97 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	5.00	8.00	13.00	918	1.66

Return Time: 1.66 minutesTotal Scraper team cycle time: 4.13 minutesAdjusted for job conditions: 349.69 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 349.69 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 349.69 LCY/HourUnadjusted unit production/hour: 421.31 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 33.30 HoursUnit cost: \$0.829 /LCYTotal job cost: \$9,651

MOTOR GRADER WORK

Task description: Finish Grade Flattened Highwalls

Site: Midway Pit

Permit Action: 2015 Update

Permit/Job#: M1988018

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 10/7/2015 County: El Paso Filename: M018-005
User: TC1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 120M Horsepower: 138
Ripper Attachment: _____ Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$24.43	NA
Operating Cost/Hour:	\$42.63	100
Ripper Operating Cost/Hour:	\$0.00	
Operator Cost/Hour:	\$38.60	NA
Total Unit Cost/Hour:	\$105.66	
Total Fleet Cost/Hour:	\$105.66	

MATERIAL QUANTITIES

Total Area to be graded or ripped: 2.57 acres

Source of estimated acreage: Highwall knock down spreadsheets

HOURLY PRODUCTION

Average Grader Speed: 1.50 mph
Selected Application: Finish grading (0-2.5 mph) - 1.5
Selected Blade Angle: 30 degrees
Effective Blade Length: 10.40 feet
Width of blade overlap per pass: 2.00 feet
Net grading or ripping width per pass: 8.40 feet
Unadjusted Hourly Unit Production: 1.5273 acres/hour

Job Condition Correction Factors

Site Altitude: 5400 feet

Altitude Adj: 1.00 Source
Job Efficiency: 0.90 (CAT HB)
Net Correction: 0.9000 (1sh/d, fav.)
multiplier

Adjusted Hourly Unit Production: 1.3745 acres/Hour
Adjusted Hourly Fleet Production: 1.3745 acres/Hour

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 1.87 Hours

Unit cost: \$76.87 per acre Total job cost: \$198

REVEGETATION WORKTask description: Reveg 25.4 AcresSite: Midway PitPermit Action: 2015 UpdatePermit/Job#: M1988018PROJECT IDENTIFICATIONTask #: 006State: ColoradoAbbreviation: NoneDate: 10/7/2015County: El PasoFilename: M018-006User: TC1Agency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5 (actual fertilizer TBD)	40.00	pound	\$0.33	\$13.08
			Total Fertilizer Materials Cost/Acre	\$13.08

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$52.71
Total Fertilizer Application Cost/Acre	\$52.71

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$88.58
Total Tilling Cost/Acre	\$88.58

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Little Bluestem - Pastura	3.50	20.89	\$55.34
Sideoats Grama - Vaughn	4.50	14.77	\$50.58
Totals Seed Mix	8.00	35.66	\$105.92

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
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
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
Total Mulch Application Cost/Acre	\$86.68

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:	25.4	Cost /Acre:	\$965.17
Estimated Failure Rate:	30%	Cost /Acre*:	\$965.17
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MU LCHING		

Initial Job Cost:	\$24,515.32
Reseeding Job Cost:	\$7,354.60
Total Job Cost:	\$31,870
Job Hours:	80.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob**Site: **Midway Pit**Permit Action: 2015 UpdatePermit/Job#: M1988018**PROJECT IDENTIFICATION**Task #: 007State: ColoradoAbbreviation: NoneDate: 10/7/2015County: El PasoFilename: M018-007User: 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 D9T - 9U	60.66	\$72.57	\$125.45	1	\$198.02	\$125.45	\$250.00
Cat 631G	52.50	\$80.91	\$125.45	1	\$206.36	\$125.45	\$250.00
CAT 120M	15.53	\$24.43	\$88.67	1	\$113.10	\$88.67	\$250.00

Subtotals: **\$517.48** **\$339.57** **\$750.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Drill/Broadcast Seeder with Tractor	\$52.78	1	\$52.78	\$52.78
Power Mulcher (Reinco M90)	\$26.19	1	\$26.19	\$26.19

Subtotals: **\$78.97** **\$78.97**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>23.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$3,840.93</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$72.65</u>
'** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.46</u>	<u>0.46</u>
Return Time (Hours):	<u>0.46</u>	<u>0.46</u>
Loading Time (Hours):	<u>0.75</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.75</u>	<u>NA</u>
Subtotals:	<u>2.42</u>	<u>0.92</u>

JOB TIME AND COST

Total job time:	<u>4.84</u>	Hours
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Total job cost:	<u>\$3,914</u>
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