

## COST SUMMARY WORK

Task description: Cost Summary of Reclamation Tasks

Site: Wellington Cattle BorrowPit

Permit Action: 2022 New Permit

Permit/Job#: M2021025

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 6/10/2022

County: Teller

Filename: M025-000

User: ERR

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

| Task                     | Description                        | Form Used | Fleet Size | Task Hours   | Cost           |
|--------------------------|------------------------------------|-----------|------------|--------------|----------------|
| 001                      | Grade/Shape Slopes (1 acre)        | DOZER     | 1          | 4.71         | \$833          |
| 002                      | Replace Topsoil on Slopes (1 acre) | DOZER     | 1          | 1.47         | \$260          |
| 003                      | Revegetate the Side Slopes         | REVEGE    | 1          | 1.00         | \$784          |
| 004                      | Mob/Demob Reclamation Equipment    | MOBILIZE  | 1          | 3.84         | \$1,143        |
| <b><u>SUBTOTALS:</u></b> |                                    |           |            | <b>11.02</b> | <b>\$3,020</b> |

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02  
Performance bond: 1.05  
Job superintendent: 5.51  
Profit: 10.00

Total= \$61  
Total= \$32  
Total= \$397  
Total= \$302

TOTAL O & P = \$792

CONTRACT AMOUNT (direct + O & P) = \$3,812

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0  
Engineering work and/or contract/bid preparation: 0.00  
Reclamation management and/or administration: 5.00

Total= \$0  
Total= \$0  
Total= \$191

CONTINGENCY: 0.00

Total= \$0

TOTAL INDIRECT COST = \$982

TOTAL AMOUNT (direct + indirect) = \$4,002

**TOTAL BOND AMOUNT (rounded) = \$4,000**

**BULLDOZER WORK**Task description: Grade/Shape Slopes (1 acre)Site: Wellington Cattle Borrow PitPermit Action: 2022 New PermitPermit/Job#: M2021025**PROJECT IDENTIFICATION**Task #: 001State: ColoradoAbbreviation: NoneDate: 6/10/2022County: TellerFilename: M025-001User: ERRAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D6T XLHorsepower: 185Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

|                        |         | <u>Utilization %</u> |
|------------------------|---------|----------------------|
| Ownership Cost/Hour:   | \$64.38 | NA                   |
| Operating Cost/Hour:   | \$64.62 | 100                  |
| Ripper own. Cost/Hour: | \$5.99  | NA                   |
| Ripper op. Cost/Hour:  | \$0.65  | 15                   |
| Operator Cost/Hour:    | \$41.30 | NA                   |

Total unit Cost/Hour: \$176.94Total Fleet Cost/Hour: **\$176.94****MATERIAL QUANTITIES**Initial Volume: 538Swell factor: 1.215Loose volume: **654 LCY**Source of estimated volume: DRMS Estimate: Avg. of 4"Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 444.6 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 0 %Average site altitude: 9,280 feetMaterial weight: 3,300 lbs/LCYWeight description: Decomposed rock - 75% Rock, 25% Earth**Job Condition Correction Factor**

|                       |       | <u>Source</u> |
|-----------------------|-------|---------------|
| Operator Skill:       | 0.750 | (A VG.)       |
| Material consistency: | 0.900 | (CAT HB))     |
| Dozing method:        | 1.000 | (GEN.)        |
| Visibility:           | 1.000 | (A VG.)       |

|                  |       |               |
|------------------|-------|---------------|
| Job efficiency:  | 0.830 | (1 SHIFT/DAY) |
| Spoil pile:      | 0.800 | (FND-RF)      |
| Push gradient:   | 1.000 | (CAT HB)      |
| Altitude:        | 1.000 | (CAT HB)      |
| Material Weight: | 0.697 | (CAT HB)      |
| Blade type:      | 1.000 | (PAT)         |

Net correction: 0.3124

Adjusted unit production: 138.89 LCY/hr

Adjusted fleet production: **138.89** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$1.274/LCY

Total job time: **4.71** Hours

Total job cost: **\$833**

**BULLDOZER WORK**Task description: Replace Topsoil on Slopes (1 acre)Site: Wellington Cattle Borrow PitPermit Action: 2022 New PermitPermit/Job#: M2021025**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 6/10/2022County: TellerFilename: M025-002User: ERRAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D6T XLHorsepower: 185Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

|                        |         | <u>Utilization %</u> |
|------------------------|---------|----------------------|
| Ownership Cost/Hour:   | \$64.38 | NA                   |
| Operating Cost/Hour:   | \$64.62 | 100                  |
| Ripper own. Cost/Hour: | \$5.99  | NA                   |
| Ripper op. Cost/Hour:  | \$0.00  | 0                    |
| Operator Cost/Hour:    | \$41.30 | NA                   |

Total unit Cost/Hour: \$176.29Total Fleet Cost/Hour: \$176.29**MATERIAL QUANTITIES**Initial Volume: 269Swell factor: 1.429Loose volume: 384 LCYSource of estimated volume: Application: 2"Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly production: 303.3 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 9,280 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

|                       |       | <u>Source</u> |
|-----------------------|-------|---------------|
| Operator Skill:       | 0.750 | (A VG.)       |
| Material consistency: | 1.200 | (CAT HB)      |
| Dozing method:        | 1.000 | (GEN.)        |
| Visibility:           | 1.000 | (A VG.)       |

|                  |       |               |
|------------------|-------|---------------|
| Job efficiency:  | 0.830 | (1 SHIFT/DAY) |
| Spoil pile:      | 0.800 | (FND-RF)      |
| Push gradient:   | 1.000 | (CAT HB)      |
| Altitude:        | 1.000 | (CAT HB)      |
| Material Weight: | 1.438 | (CAT HB)      |
| Blade type:      | 1.000 | (PAT)         |

Net correction: 0.8593

Adjusted unit production: 260.63 LCY/hr

Adjusted fleet production: **260.63** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.676/LCY

Total job time: **1.47** Hours

Total job cost: **\$260**

REVEGETATION WORKTask description: Revegetate the Side SlopesSite: Wellington Cattle Borrow PitPermit Action: 2022 New PermitPermit/Job#: M2021025PROJECT IDENTIFICATIONTask #: 003State: ColoradoAbbreviation: NoneDate: 6/8/2022County: TellerFilename: M025-003User: ERRAgency or organization name: DRMSFERTILIZINGMaterials

| Description | Units /<br>Acre | Unit | Cost / Unit   | Cost/Acre     |
|-------------|-----------------|------|---|---------------|
|             |                 |      | \$  | \$            |
|             |                 |      | <b>Total Fertilizer<br/>Materials<br/>Cost/Acre</b> | <b>\$0.00</b> |

Application

| Description                                   | Cost/Acre     |
|---|---------------|
|   | \$            |
| <b>Total Fertilizer Application Cost/Acre</b> | <b>\$0.00</b> |

TILLING

| Description                                     | Cost/Acre       |
|---|-----------------|
| Disc harrowing, 6" deep (MEANS 3291 13.23 6100) | \$114.56        |
| Subsoiling, light {(DMG)}                       | \$175.31        |
| <b>Total Tilling Cost/Acre</b>                  | <b>\$289.87</b> |

SEEDING

| Seed Mix                               | Rate –<br>PLS<br>LBS /<br>Acre | Seeds<br>per SQ.<br>FT | Cost/Acre      |
|--|--------------------------------|------------------------|----------------|
| Rye, Perennial Tetraploid - Tetra-Plus | 3.84                           | 21.77                  | \$6.91         |
| Orchardgrass - Shawnee                 | 3.83                           | 47.48                  | \$11.87        |
| Smooth Brome - Lincoln                 | 3.75                           | 12.48                  | \$12.47        |
| Intermediate Wheatgrass - Rush         | 1.98                           | 4.23                   | \$5.54         |
| Streambank Wheatgrass - Sodar          | 1.96                           | 6.39                   | \$11.17        |
| Siberian Wheatgrass                    | 3.81                           | 9.62                   | \$21.81        |
| <b>Totals Seed Mix</b>                 | <b>19.17</b>                   | <b>101.97</b>          | <b>\$69.78</b> |

**Application**

| Description                             | Cost/Acre       |
|---|-----------------|
| Broadcast seeding [DMG]                 | \$267.22        |
| <b>Total Seed Application Cost/Acre</b> | <b>\$267.22</b> |

**MULCHING and MISCELLANEOUS****Materials**

| Description                            | Units /<br>Acre | Unit | Cost/ Unit | Cost/Acre     |
|--|-----------------|------|------------|---------------|
|  |                 |      | \$         | \$            |
| <b>Total Mulch Materials Cost/Acre</b> |                 |      |            | <b>\$0.00</b> |

**Application**

| Description                              | Cost/Acre     |
|--|---------------|
|  | \$            |
| <b>Total Mulch Application Cost/Acre</b> | <b>\$0.00</b> |

**NURSERY STOCK PLANTING**

| Common Name                            | No /<br>Acre | Type and Size | Planting<br>Cost | Fertilizer<br>Pellet Cost | Cost/Acre     |
|--|--------------|---------------|------------------|---------------------------|---------------|
|  |              |               |                  |                           | \$            |
| <b>Totals Nursery Stock Cost/ Acre</b> |              |               |                  |                           | <b>\$0.00</b> |

**JOB TIME AND COST**

No. of Acres: 1 Cost/Acre: \$626.87  
 Estimated Failure Rate: 25% Cost/Acre\*: \$626.87  
 \*Selected Replanting Work Items: TILLING,SEEDING  
 Initial Job Cost: \$626.87  
 Reseeding Job Cost: \$156.72  
 Total Job Cost: \$784  
 Job Hours: 1.00

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mob/Demob Reclamation Equipment**Site: **Wellington Cattle Borrow Pit**Permit Action: **2022 New Permit**Permit/Job#: **M2021025****PROJECT IDENTIFICATION**Task #: **004**State: **Colorado**Abbreviation: **None**Date: **6/10/2022**County: **Teller**Filename: **M025-004**User: **ERR**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:**

| <b>Available Rig Capacities</b> | <b>0-25 Tons</b> | <b>26-50 Tons</b> | <b>51+ Tons</b> |
|---------------------------------|------------------|-------------------|-----------------|
| Ownership Cost/Hour:            | \$21.28          | \$37.94           | \$47.67         |
| Operating Cost/Hour:            | \$26.55          | \$50.48           | \$56.21         |
| Operator Cost/Hour:             | \$20.54          | \$20.54           | \$20.54         |
| Helper Cost/Hour:               | \$0.00           | \$23.53           | \$23.53         |
| Total Unit Cost/Hour:           | \$68.37          | \$132.49          | \$147.95        |

**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 |
|---------------------|---------------------|-------------------------|-----------------------|------------|-------------------------|---------------------------|------------------------|
| Cat D6T XL          | 25.01               | \$70.37                 | \$68.37               | 1          | \$138.74                | \$68.37                   | \$250.00               |

Subtotals: **\$138.74** **\$68.37** **\$250.00****ROADABLE EQUIPMENT:**

| Machine Description               | Total Cost/hr/unit | Fleet Size | Haul Trip Cost/hr/fleet | Return Trip Cost/hr/fleet |
|-----------------------------------|--------------------|------------|-------------------------|---------------------------|
| Light Duty Pickup, 4x4, 1 T. Crew | \$138.34           | 1          | \$138.34                | \$138.34                  |

Subtotals: **\$138.34** **\$138.34**



**EQUIPMENT HAUL DISTANCE and Time**

|  |                         |       |
|--|-------------------------|-------|
| Nearest Major City or Town within project area region: | <u>COLORADO SPRINGS</u> |       |
| Total one-way travel distance:                         | <u>40.50</u>            | miles |
| Average Travel Speed:                                  | <u>50.00</u>            | mph   |
| Total Non-Roadable Mob/Demob Cost *                    | <u>\$918.76</u>         |       |
| '* two round trips with haul rig:                      |                         |       |
| Total Roadable Mob/Demob Cost **                       | <u>\$224.11</u>         |       |
| ** one round trip, no haul rig:                        |                         |       |

**Transportation Cycle Time:**

|                         | Non-Roadable Equipment | Roadable Equipment |
|-------------------------|------------------------|--------------------|
| Haul Time (Hours):      | <u>0.81</u>            | <u>0.81</u>        |
| Return Time (Hours):    | <u>0.81</u>            | <u>0.81</u>        |
| Loading Time (Hours):   | <u>0.15</u>            | <u>NA</u>          |
| Unloading Time (Hours): | <u>0.15</u>            | <u>NA</u>          |
| Subtotals:              | <u>1.92</u>            | <u>1.62</u>        |

**JOB TIME AND COST**

|                 |                |       |
|-----------------|----------------|-------|
| Total job time: | <u>3.84</u>    | Hours |
| Total job cost: | <u>\$1,143</u> |       |