

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

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June 1, 2012

Matt Dankers
Blattner Energy, Inc.
9232 Ballybunion Rd.
Peyton, CO 80831

John W. Hickenlooper
Governor

Mike King
Executive Director

Loretta E. Piñeda
Director

RE: Higgins Pit II; DRMS File No. M-2012-013; Financial Warranty Calculation

Dear Mr. Dankers,

The Division of Reclamation, Mining and Safety (Division) has completed the Financial Warranty Calculation (copy enclosed) for the above referenced pit. Please review the enclosed figures as soon as possible and our office if any calculation errors are noted.

Sincerely,

Michael A. Cunningham
Environmental Protection Specialist

Enclosure

COST SUMMARY WORK

Task description: Cost Summary

Site: Higgins Pit II

Permit Action: Bond Calculation

Permit/Job#: M2012013

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 6/1/2012

County: Lincoln

Filename: M013-000

User: MAC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

| Task | Description | Form Used | Fleet Size | Task Hours | Cost |
|--------------------------|---------------------------------------|-----------|------------|---------------|------------------------|
| 001 | Grading pit slopes to 3H:1V | DOZER | 1 | 119.76 | \$38,619.31 |
| 002 | Replacing Topsoil | SCRAPER1 | 1 | 136.38 | \$36,580.06 |
| 003 | Revegetating Disturbed Areas | REVEGE | 1 | 24.00 | \$84,254.18 |
| 004 | Equipment Mobilization/Demobilization | MOBILIZE | 1 | 3.33 | \$2,257.36 |
| <u>SUBTOTALS:</u> | | | | 283.47 | \$ \$161,710.91 |

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 0.00
Profit: 10.00

Total = \$3,266.56
Total = \$1,697.96
Total = \$0.00
Total = \$16,171.09

TOTAL O & P = \$21,135.61

CONTRACT AMOUNT (direct + O & P) = \$182,846.52

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Total = 0.00
Total = \$0.00
Total = \$9,142.33

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$30,277.94

TOTAL BOND AMOUNT (direct + indirect) = \$191,988.85

TOTAL BOND AMOUNT (Rounded Up) = \$192,000.00

BULLDOZER WORKTask description: Grading pit slopes to 3H:1VSite: Higgins Pit IIPermit Action: Bond CalculationPermit/Job#: M2012013**PROJECT IDENTIFICATION**Task #: 001State: ColoradoAbbreviation: NoneDate: 6/1/2012County: LincolnFilename: M013-001User: MACAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D10T - 10SUHorsepower: 574Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

| | | <u>Utilization %</u> |
|-----------------------|----------|----------------------|
| Ownership Cost/Hour: | \$102.22 | NA |
| Operating Cost/Hour: | \$181.78 | 100 |
| Ripper op. Cost/Hour: | \$0.00 | 0 |
| Operator Cost/Hour: | \$38.49 | NA |

Total unit Cost/Hour: \$322.48Total Fleet Cost/Hour: \$322.48**MATERIAL QUANTITIES**Initial Volume: 46,213Swell factor: 1.000Loose volume: 46,213 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 150 feetUnadjusted hourly production: 1,243.2 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 10 %Average site altitude: 5,590 feetMaterial weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% Earth**Job Condition Correction Factor**

| | | <u>Source</u> |
|-----------------------|-------|---------------|
| Operator Skill: | 0.750 | (AVG.) |
| Material consistency: | 1.000 | (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: | 0.786 | (CAT HB) |
| Altitude: | 1.000 | (CAT HB) |
| Material Weight: | 0.793 | (CAT HB) |
| Blade type: | 1.000 | (PAT) |

Net correction: 0.3104

Adjusted unit production: 385.89 LCY/hr
Adjusted fleet production: **385.89 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.836/LCY

Total job time: **119.76 Hours**
Total job cost: **\$38,619.31**

SCRAPER TEAM WORKTask description: **Replacing Topsoil**Site: **Higgins Pit II**Permit Action: **Bond Calculation**Permit/Job#: **M2012013****PROJECT IDENTIFICATION**Task #: **002**State: **Colorado**Abbreviation: **None**Date: **6/1/2012**County: **Lincoln**Filename: **M013-002**User: **MAC**Agency or organization name: **DRMS****HOURLY EQUIPMENT**COSTShift basis: **1 per day**

| Equipment Description | |
|---------------------------------|----------|
| -Scraper: | Cat 627G |
| -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: | \$65.54 | NA | NA | NA | NA | NA |
| Operating cost/hour: | \$177.75 | NA | NA | NA | NA | NA |
| Ripper op. cost/hour: | NA | NA | NA | NA | NA | NA |
| Operator cost/hour: | \$24.95 | NA | NA | NA | NA | NA |
| Unit Subtotals: | \$268.23 | NA | NA | NA | NA | NA |
| Number of Units: | 1 | 0 | 0 | 0 | 0 | 0 |
| Group Subtotals: | Work: \$268.23 | | Support: | \$0.00 | Maint: | \$0.00 |

Total work team cost/hour: **\$268.23****MATERIAL QUANTITIES**Initial volume: **41,812**

CCY

Swell factor: **1.215**Loose volume: **50,802**

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: | <u>1,600 lbs/LCY</u> | Struck Volume: | <u>15.70</u> | LCY |
| Material description: | <u>Top Soil</u> | Heaped Volume: | <u>22.00</u> | LCY |
| Rated Payload: | <u>52,800 pounds</u> | Average Volume: | <u>18.85</u> | LCY |
| Payload Capacity: | <u>33.00 LCY</u> | Adjusted Capacity: | <u>18.85</u> | LCY |

Cycle Time:Scraper Loading Time: 0.70 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 5590 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0Haul Route:

| Seg # | Haul Distance (Ft) | Grade (%) | Roll. Res (%) | Total Res (%) | Velocity (fpm) | Travel Time (min) |
|-------|--------------------|-----------|---------------|---------------|----------------|-------------------|
| 1 | 500.00 | 15.00 | 3.00 | 18.00 | 600 | 0.84 |

Haul Time: 0.84 minutesReturn Route:

| Seg # | Haul Distance (Ft) | Grade (%) | Roll. Res (%) | Total Res (%) | Velocity (fpm) | Travel Time (min) |
|-------|--------------------|-----------|---------------|---------------|----------------|-------------------|
| 1 | 500.00 | -15.00 | 3.00 | -12.00 | 1749 | 0.38 |

Return Time: 0.38 minutesTotal Scraper team cycle time: 2.52 minutesAdjusted for job conditions: 372.51 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 372.51 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 372.51 LCY/HourUnadjusted unit production/hour: 448.81 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 136.38 HoursUnit cost: \$0.720 /LCYTotal job cost: \$36,580.06

REVEGETATION WORKTask description: Revegetating Disturbed AreasSite: Higgins Pit IIPermit Action: Bond CalculationPermit/Job#: M2012013**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 6/1/2012County: LincolnFilename: M013-003User: MACAgency 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 |
|--------------------------------|----------------|
| Chisel plowing (DMG) | \$86.71 |
| Total Tilling Cost/Acre | \$86.71 |

SEEDING

| Seed Mix | Rate – PLS LBS / Acre | Seeds per SQ. FT | Cost /Acre |
|-----------------------------|--------------------------------|------------------------|----------------|
| Blue Grama - Lovington | 0.90 | 14.69 | \$9.57 |
| Little Bluestem - Pastura | 0.70 | 4.18 | \$10.84 |
| Sideoats Grama - Vaughn | 3.60 | 11.82 | \$39.60 |
| Western Wheatgrass - Arriba | 3.20 | 8.08 | \$11.52 |
| Totals Seed Mix | 8.40 | 38.77 | \$71.52 |

Application

| Description | Cost /Acre |
|--|------------|
| Drill seeding (MEANS 32 92 19.13 0020) | \$382.00 |

| | |
|---|-----------------|
| Total Seed Application Cost/Acre | \$382.00 |
|---|-----------------|

MULCHING and MISCELLANEOUS**Materials**

| Description | Units / Acre | Unit | Cost / Unit | Cost /Acre |
|---|-------------------------|-------------|--------------------|-------------------|
| Hay, delivered {MEANS 31 25 14.16 1200} | 2.00 | TON | \$164.00 | \$328.00 |
| Total Mulch Materials Cost/Acre | | | | \$328.00 |

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: | 86.02 | Cost /Acre: | \$934.12 |
| Estimated Failure Rate: | 10% | Cost /Acre*: | \$453.52 |
| *Selected Replanting Work Items: | SEEDING | | |
| Initial Job Cost: | \$80,353.00 | | |
| Reseeding Job Cost: | \$3,901.18 | | |
| Total Job Cost: | \$84,254.18 | | |
| Job Hours: | 24.00 | | |

EQUIPMENT MOBILIZATION/DEMobilIZATIONTask description: **Equipment Mobilization/Demobilization**Site: **Higgins Pit II** Permit Action: **Bond Calculation** Permit/Job#: **M2012013****PROJECT IDENTIFICATION**

Task #: 004 State: Colorado Abbreviation: None
 Date: 6/1/2012 County: Lincoln Filename: M013-004
 User: MAC

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 D10T - 10SU | 84.53 | \$102.22 | \$125.45 | 1 | \$227.67 | \$125.45 | \$250.00 |
| Cat 627G | 41.80 | \$65.54 | \$117.55 | 1 | \$183.09 | \$117.55 | \$250.00 |
| Subtotals: | | | | | \$410.76 | \$243.00 | \$500.00 |

ROADABLE EQUIPMENT:

| Machine Description | Total Cost/hr/ unit | Fleet Size | Haul Trip Cost/hr/ fleet | Return Trip Cost/hr/ fleet |
|---------------------|---------------------|------------|--------------------------|----------------------------|
| Subtotals: | | | \$0.00 | \$0.00 |

EQUIPMENT HAUL DISTANCE and Time

| | | |
|--|-----------|-------|
| Nearest Major City or Town within project area region: | LIMON, CO | |
| Total one-way travel distance: | 15.00 | miles |
| Average Travel Speed: | 45.00 | mph |

| | |
|-------------------------------------|------------|
| Total Non-Roadable Mob/Demob Cost * | \$2,257.36 |
| ** two round trips with haul rig: | |
| Total Roadable Mob/Demob Cost ** | \$0.00 |
| ** one round trip, no haul rig: | |

Transportation Cycle Time:

| | Non-Roadable Equipment | Roadable Equipment |
|-------------------------|---------------------------|-----------------------|
| Haul Time (Hours): | 0.33 | 0.33 |
| Return Time (Hours): | 0.33 | 0.33 |
| Loading Time (Hours): | 0.50 | NA |
| Unloading Time (Hours): | 0.50 | NA |
| Subtotals: | 1.67 | 0.67 |

JOB TIME AND COST

| | | |
|-----------------|------|-------|
| Total job time: | 3.33 | Hours |
|-----------------|------|-------|

| | |
|-----------------|------------|
| Total job cost: | \$2,257.36 |
|-----------------|------------|