



December 26, 2013

CERTIFIED MAIL #7013 0600 0002 3995 3945

US Nuclear Regulatory Commission  
Attn: Mr. Douglas Mandeville  
11545 Rockville Pike  
Two White Flint North, Mailstop T8 F5  
Rockville, MD 20852-2738

**CAMECO RESOURCES**

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RE: License SUA-1548, Docket No. 40-8964  
2013-2014 Surety Estimate Update for Ruth ISR Project

Dear Mr. Mandeville:

Pursuant to License Condition 9.5, Power Resources, Inc. d/b/a Cameco Resources (Cameco) is herein providing two (2) copies of the proposed 2013-14 surety estimate updates for the Ruth ISR Project. This surety estimate has also been submitted to the Wyoming Department of Environmental Quality/Land Quality Division (WDEQ/LQD) in the 2013 Annual Report.

The Ruth ISR Project is nonoperational with no current development or operational activities planned for the next surety period. A surety estimate of \$198,000 is proposed, estimated using WDEQ/LQD Guideline No. 12 and actual reclamation costs from Cameco's Smith Ranch-Highland operation.

If you have any questions regarding this estimate, please feel free to contact me directly at 307-316-7586 or [Scott\\_Bakken@cameco.com](mailto:Scott_Bakken@cameco.com) or Jeanie Wolford at 307-333-7644 or [Jeanie\\_Wolford@cameco.com](mailto:Jeanie_Wolford@cameco.com).

Sincerely,  
Cameco Resources

Scott A. Bakken  
Manager, SHEQ Systems & Compliance

Enclosures: Appendix A: 2013-2014 Ruth Reclamation Surety Bond Estimate

JL:jmw

2013-2014 RECLAMATION SURETY BOND ESTIMATE  
WDEQ PERMIT No. 631 ANNUAL REPORT / NRC SUA-1548  
RUTH ISR PROJECT - CAMECO RESOURCES

**TOTAL DECOMMISSIONING AND RECLAMATION COST ESTIMATE**

|  |                  |
|--|------------------|
| I. BUILDING DEMOLITION AND DISPOSAL COSTS                            | \$79,577         |
| II. EVAPORATION POND DECOMMISSIONING COSTS                           | \$38,668         |
| III. MISC. SURFACE RECLAMATION COSTS                                 | \$10,253         |
| IV. WELL PLUGGING AND ABANDONMENT                                    | \$7,840          |
| V. FINAL STATUS SURVEY REPORT  | \$10,000         |
| SUBTOTAL   | \$146,338        |
| CONTINGENCY:   |                  |
| PROJECT MANAGEMENT + MISCELLANEOUS COSTS (25%) <sup>a</sup>          | \$36,585         |
| CONTRACTOR PROFIT + OVERHEAD + MOBILIZATION COSTS (10%) <sup>b</sup> | \$14,634         |
| <b>TOTAL RECLAMATION, ROUNDED UP</b>                                 | <b>\$198,000</b> |

<sup>a</sup> Based on WDEQ-LQD Guideline No. 12 , Section II(B)(12)(except b) and (13).

<sup>b</sup> Based on WDEQ-LQD Guideline No. 12 , Section II(B)(12)(b).

**NOTE: Salvage value is not included in any cost estimates.**

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|  | Process<br>Building | Warehouse<br>Building | Generator<br>Building |
|--|---------------------|-----------------------|-----------------------|
| <b>I. BUILDING DEMOLITION AND DISPOSAL</b>                                   |                     |                       |                       |
| <b>A. Demolition</b>   |                     |                       |                       |
| 1 Equipment  |                     |                       |                       |
| Equipment remaining on site includes 6 tanks/vessels and injection manifold. |                     |                       |                       |
| Subtotal Equipment Dismantling   | \$8,000             | \$0                   | \$0                   |
| 2 Building   |                     |                       |                       |
| Building Volume (CF)   | 80,000              | 6,000                 | 1500                  |
| Demolition Unit Cost per WDEQ Guideline 12, App. K (\$/CF)                   | \$0.287             | \$0.287               | \$0.287               |
| Subtotal Building Demolition   | \$22,992            | \$1,724               | \$431                 |
| 3 Concrete Floor   |                     |                       |                       |
| Concrete Floor Area, SF  | 4,000               | 600                   | 150                   |
| Demolition Unit Cost per WDEQ Guideline 12, App. K (\$/SF)                   | \$5.48              | \$5.48                | \$5.48                |
| Subtotal Concrete Floor Demolition   | \$21,919            | \$3,288               | \$822                 |
| 4 Concrete Footing   |                     |                       |                       |
| Concrete Footing Length (ft)   | 280                 | 0                     | 0                     |
| Demolition Unit Cost per WDEQ Guideline 12, App. K (\$/lin.ft)               | \$20.21             | \$20.21               | \$20.21               |
| Subtotal Concrete Footing Demolition   | \$5,660             | \$0                   | \$0                   |
| Subtotal Demolition per Building   | \$58,571            | \$5,012               | \$1,253               |
| <b>Total Demolition</b>  |                     |                       | <b>\$64,836</b>       |
| <b>B. Disposal</b>   |                     |                       |                       |
| 1 Equipment  |                     |                       |                       |
| Equipment Volume (CY)  | 15                  |                       |                       |
| Disposal Unit Cost (\$/ton) <sup>a</sup>                                     | \$0                 | \$0                   | \$0                   |
| Convert waste volume to tons ( 0.24 tons / CY) <sup>b</sup>                  | 4                   |                       |                       |
| QTY. Trips   | 2                   | 0                     | 0                     |
| Transportation Unit Cost (\$/trip)   | \$1,000             | \$1,000               | \$1,000               |
| Subtotal Equipment Disposal  | \$2,000             | \$0                   | \$0                   |
| 2 Buildings On-Site  |                     |                       |                       |
| Assume Thickness of building material (ft)                                   | 0.75                | 0.5                   | 0.5                   |
| Building Length (ft)   | 100                 | 30                    | 15                    |
| Building Width (ft)  | 40                  | 20                    | 10                    |
| Building Height (ft)   | 20                  | 10                    | 10                    |
| Volume of Building Materials (CY)  | 267                 | 30                    | 12                    |
| Volume for Disposal (assume 25% swell factor) (CY)                           | 334                 | 38                    | 15                    |
| Disposal Unit Cost per WDEQ Guideline 12, App. K (\$/CY)                     | \$8.29              | \$8.29                | \$8.29                |
| Subtotal Building Disposal   | \$2,768             | \$315                 | \$124                 |
| 3 Concrete Floor   |                     |                       |                       |
| Area of Concrete Floor, SF   | 4,000               | 600                   | 150                   |
| Average Thickness of Concrete Floor (ft)                                     | 0.5                 | 0.5                   | 0.5                   |
| Volume of Concrete Floor (CY)  | 74                  | 11                    | 3                     |
| a. On-Site Disposal  |                     |                       |                       |
| Percentage (%) <sup>b</sup>  | 90%                 | 100%                  | 100%                  |
| Volume for Disposal (CY)   | 66.6                | 11                    | 3                     |
| Disposal Unit Cost per WDEQ Guideline 12, App. K (\$/CY)                     | \$8.29              | \$8.29                | \$8.29                |
| Subtotal On-Site Disposal  | \$552               | \$91                  | \$25                  |

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|  | Process<br>Building | Warehouse<br>Building | Generator<br>Building |
|--|---------------------|-----------------------|-----------------------|
| <b>I. BUILDING DEMOLITION AND DISPOSAL</b>   |                     |                       |                       |
| b. NRC-Licensed Facility   |                     |                       |                       |
| Percentage (%) <sup>c</sup>  | 10%                 | 0%                    | 0%                    |
| Disposal Volume (CY)   | 7.4                 | 0                     | 0                     |
| Assume 50% volume swell factor (CY)  | 11                  | 0                     | 0                     |
| Disposal Unit Cost (\$/ton) <sup>a</sup>   | 138.97              | 138.97                | 138.97                |
| Convert waste volume to tons ( 0.24 tons / CY) <sup>b</sup>  | 2.64                | 0                     | 0                     |
| QTY. Trips   | 1                   | 0                     | 0                     |
| Transportation Unit Cost (\$/trip)   | \$335               | \$335                 | \$335                 |
| Subtotal NRC-Licensed Facility Disposal  | \$702               | \$0                   | \$0                   |
| Subtotal Concrete Floor Disposal   | \$1,254             | \$91                  | \$25                  |
| 4 Concrete Footing On-Site   |                     |                       |                       |
| Length Concrete Footing (ft)   | 280                 | 0                     | 0                     |
| Average Thickness Concrete Footing (ft)  | 4                   | 4                     | 4                     |
| Average Width Concrete Footing (ft)  | 1                   | 1                     | 1                     |
| Concrete Footing Volume (CY)   | 41                  | 0                     | 0                     |
| Disposal Unit Cost per WDEQ Guideline 12, App. K (\$/CY)   | \$8.29              | \$8.29                | \$8.29                |
| Subtotal Concrete Footing Disposal   | \$340               | \$0                   | \$0                   |
| Subtotal Disposal per Building   | \$6,362             | \$406                 | \$149                 |
| <b>Total Disposal</b>  |                     |                       | <b>\$6,917</b>        |
| <b>C. Radiation Surveys and Soil Sampling</b>  |                     |                       |                       |
| Assume: environmental and personnel monitoring (TLD) not required, based on NRC regulations and ambient levels of radiation on-site. |                     |                       |                       |
| 1 Equipment (Alpha/Gamma Surveys and Smear Samples)  |                     |                       |                       |
| QTY. Weeks   | 2                   | 0                     | 0                     |
| Rental Rate (\$/week)  | \$250               | \$250                 | \$250                 |
| Subtotal Equipment   | \$500               | \$0                   | \$0                   |
| 2 Labor (Surveys and Soil Sampling)  |                     |                       |                       |
| QTY. Hours   | 80                  | 0                     | 0                     |
| Labor, per Mountain States Employers Council   | \$36.40             | \$36.40               | \$36.40               |
| Subtotal Labor   | \$2,912             | \$0                   | \$0                   |
| 3 Analytical   |                     |                       |                       |
| QTY. Samples   | 5                   | 0                     | 0                     |
| Ra-226 Analytical (\$/sample)  | \$100               | \$100                 | \$100                 |
| Subtotal Analytical  | \$500               | \$0                   | \$0                   |
| <b>Total Radiation Survey + Soil Sampling</b>  |                     |                       | <b>\$3,912</b>        |
| <b>SUBTOTAL INDIVIDUAL BLDG. DEMOLITION + DISPOSAL COSTS</b>   | <b>\$68,845</b>     | <b>\$5,418</b>        | <b>\$5,314</b>        |
| <b>TOTAL ALL BUILDING DEMOLITION + DISPOSAL COST</b>   |                     |                       | <b>\$79,577</b>       |

Notes:

a - Per Byproduct Material Disposal Agreement with Dennison Mines

b - Florida Dept. Environmental Protection: *Converting C&D Debris from Volume to Weight, a Fact Sheet for C&D Debris Facility Operators* [[www.floridacenter.org/C&Dconversion.html](http://www.floridacenter.org/C&Dconversion.html)]

c - Based on radiation surveys conducted by Pathfinder Mines Co. during October - November 2001 (see site transfer letter dated November 2, 2001).

CF - cubic feet

CY - cubic yards

ft - feet

in - inches

lin. ft - linear feet

SF - square feet

QTY - quantity

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| II. EVAPORATION POND DECOMMISSIONING |  | Pond No. 1 | Pond No. 2      |
|--------------------------------------|--|------------|-----------------|
| <b>A.</b>                            | <b>By-product Material Removal and Loading</b>     |            |                 |
| <b>1</b>                             | Volume of By-product Material                      |            |                 |
|                                      | Area of Pond Bottom (SF)                           | 22,138     | 21,947          |
|                                      | a. Area with Fill (SF)                             | 2,813      | 0               |
|                                      | Average Fill Thickness (in)                        | 3.5        | 0               |
|                                      | Volume of Fill (CY)                                | 30         | 0               |
|                                      | b. Remaining Area with Pond Residue (SF)           | 19,325     | 21,947          |
|                                      | Average Pond Residue Thickness (in)                | 1          | 0.5             |
|                                      | Volume of Pond Residue (CY)                        | 60         | 34              |
|                                      | c. Area of Liner (SF)                              | 22,138     | 21,947          |
|                                      | Thickness of Liner (in)                            | 0.036      | 0.036           |
|                                      | Volume of Liner (CY)                               | 2.5        | 2.4             |
|                                      | Volume of Liner Assuming 25% Void Space (CY)       | 3          | 3               |
|                                      | d. Area of Contaminated Sump and Drain (SF)        | 0          | 1               |
|                                      | Length of Sump and Drain (ft)                      | 0          | 240             |
|                                      | Volume of Sump and Drain (CY)                      | 0          | 9               |
|                                      | e. Diameter of Contaminated Soil (ft)              | 0          | 10              |
|                                      | Contaminated Soil Thickness (in)                   | 0          | 6               |
|                                      | Volume of Contaminated Soil (CY)                   | 0          | 1               |
|                                      | Subtotal Volume By-product Material (CY)           | 93         | 47              |
| <b>2</b>                             | Equipment (Front-End Loader)                       |            |                 |
|                                      | QTY. Hours   | 40         | 20              |
|                                      | Operating (\$/hr)                                  | \$116      | \$116           |
|                                      | Loader Cat 924G Loader Guideline 12                |            |                 |
|                                      | Subtotal Equipment                                 | \$4,649    | \$2,324         |
| <b>3</b>                             | Labor, per Mountain States Employers Council       |            |                 |
|                                      | QTY. Hours   | 40         | 20              |
|                                      | QTY. Laborers                                      | 3          | 3               |
|                                      | Labor (\$/hr)                                      | \$36.40    | \$36.40         |
|                                      | Subtotal Labor                                     | \$4,368    | \$2,184         |
|                                      | By-product Material Removal and Loading Per Pond   | \$9,017    | \$4,508         |
|                                      | <b>Total By-product Material Removal + Loading</b> |            | <b>\$13,525</b> |
| <b>B.</b>                            | <b>Transportation and Disposal</b>                 |            |                 |
|                                      | Total Volume of Byproduct Material (CY)            | 93         | 47              |
|                                      | Transportation & Disposal                          |            |                 |
|                                      | Volume of Soil per Trip (CY/trip)                  | 30         | 30              |
|                                      | QTY. Trips   | 3          | 2               |
|                                      | per Trip (\$/trip)                                 | \$488      | \$488           |
|                                      | Subtotal Transportation + Disposal per pond        | \$1,463.60 | \$976           |
|                                      | <b>Total Transportation + Disposal</b>             |            | <b>\$2,439</b>  |

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| II. EVAPORATION POND DECOMMISSIONING          |   |   |  | Pond No. 1 | Pond No. 2      |
|---|---|---|--|------------|-----------------|
| <b>C. Ripping</b>                             |   |   |  |            |                 |
|   | Area (acres)  |   |  | 0.5        | 0.5             |
|   | Ripping Unit Cost per WDEQ Guideline 12, App. I (\$/acre)       |   |  | \$881.17   | \$881.17        |
|   |   |   | Subtotal Ripping per pond  | \$441      | \$441           |
|   |   |   | <b>Total Ripping</b>   |            | <b>\$882</b>    |
| <b>D. Backfilling</b>                         |   |   |  |            |                 |
|   | Volume of Soil (CY)   |   |  | 5400       | 5400            |
|   | Backfilling Unit Cost per WDEQ Guideline 12, App. E (\$/CY)     |   |  | \$0.266    | \$0.266         |
|   | Assume: Surface grade = 0%; Avg. haul distance = 100 ft.        |   |  |            |                 |
|   |   |   | Subtotal Backfilling per pond  | \$1,436    | \$1,436         |
|   |   |   | <b>Total Backfilling</b>   |            | <b>\$2,872</b>  |
| <b>E. Grading</b>                             |   |   |  |            |                 |
|   | Area (acres)  |   |  | 1.5        | 1.5             |
|   | Rough Grading Unit Cost per WDEQ Guideline 12, App. M (\$/acre) |   |  | \$93.43    | \$93.43         |
|   | Final Grading Unit Cost per WDEQ Guideline 12, App. G (\$/acre) |   |  | \$77.31    | \$77.31         |
|   |   |   | Subtotal Grading per pond  | \$256      | \$256           |
|   |   |   | <b>Total Grading</b>   |            | <b>\$512</b>    |
| <b>F. Replacement of Topsoil</b>              |   |   |  |            |                 |
|   | Volume of Topsoil (CY)  |   |  | 3756       | 3756            |
|   | Application Unit Cost per WDEQ Guideline No.12, App.E (\$/CY)   |   |  | \$1.409    | \$1.409         |
|   | Assume Surface grade = 0%, Avg. haul distance = 400 ft.         |   |  |            |                 |
|   |   |   | Subtotal Topsoil Replacement per pond  | \$5,292    | \$5,292         |
|   |   |   | <b>Total Topsoil Replacement</b>   |            | <b>\$10,584</b> |
| <b>G. Seeding/Revegetation</b>                |   |   |  |            |                 |
|   | Area (acres)  |   |  | 1.5        | 1.5             |
|   | Discing, Seeding, Mulching, \$/acre                             |   |  | \$606      | \$606           |
|   |   |   | from Smith Ranch-Highland 2010 actual cost   |            |                 |
|   |   |   | Subtotal Seeding/Revegetation per pond   | \$909      | \$909           |
|   |   |   | <b>Total Seeding/Revegetation</b>  |            | <b>\$1,818</b>  |
| <b>H. Fence Removal</b>                       |   |   |  |            |                 |
|   | Length (ft)   |   |  | 800        | 800             |
|   | Fence Removal Unit Cost per WDEQ Guideline 12, App. H (\$/ft)   |   |  | \$0.39     | \$0.39          |
|   |   |   | Subtotal Fence Removal per pond  | \$312      | \$312           |
|   |   |   | <b>Total Fence Removal</b>   |            | <b>\$624</b>    |
| <b>I. Radiation Surveys and Soil Sampling</b> |   |   |  |            |                 |
|   |   |   | Assume: environmental and personnel monitoring (TLD) not required, based on NRC regulations and ambient levels of radiation on-site. |            |                 |
|   | <b>1</b>  | Equipment (Alpha/Gamma Surveys and Smear Samples) |  |            |                 |
|   |   | QTY. Weeks  |  | 1          | 1               |
|   |   | Rental Rate (\$/week)                             |  | \$250      | \$250           |
|   |   |   | Subtotal Equipment   | \$250      | \$250           |
|   | <b>2</b>  | Labor (Surveys and Soil Sampling)                 |  |            |                 |
|   |   | QTY. Hours  |  | 40         | 40              |
|   |   | Labor, per WDEQ Guideline 12 App's. N & O         |  | \$36.40    | \$36.40         |
|   |   |   | Subtotal Labor   | \$1,456    | \$1,456         |

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| II. EVAPORATION POND DECOMMISSIONING |   |  |  | Pond No. 1      | Pond No. 2      |
|--------------------------------------|---|--|--|-----------------|-----------------|
|                                      | 3 | Analytical   |  |                 |                 |
|                                      |   | QTY. Samples                                       |  | 10              | 10              |
|                                      |   | Ra-226 Analytical (\$/sample)                      |  | \$100           | \$100           |
|                                      |   |  | Subtotal Analytical per pond                       | \$1,000         | \$1,000         |
|                                      |   |  | Subtotal Radiation Survey + Soil Sampling per pond | \$2,706         | \$2,706         |
|                                      |   |  | <b>Total Radiation Survey + Soil Sampling</b>      |                 | <b>\$5,412</b>  |
|                                      |   | SUBTOTAL EVAPORATION POND DECOMMISSIONING COSTS    |  | <u>\$21,833</u> | <u>\$16,836</u> |
|                                      |   | <b>TOTAL EVAPORATION POND DECOMMISSIONING COST</b> |  |                 | <b>\$38,668</b> |

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| III. MISC. SURFACE RECLAMATION                            |   | Unit Cost  | Units | Est Qty | Subtotal        |
|---|---|------------|-------|---------|-----------------|
| <b>A. Buildings, Roads, and Parking Areas</b>             |   |            |       |         |                 |
| 1   | Gravel Removal  | \$1.099    | CY    | 1500    | \$1,649         |
|   | Removal Unit Cost per WDEQ Guideline 12, App. C: assume surface Grade = 0%, avg. haul distance = 500 ft.        |            |       |         |                 |
| 2   | Ripping   | \$1,255.70 | acre  | 2       | \$2,511         |
|   | Ripping Unit Cost per WDEQ Guideline 12, App. I1  |            |       |         |                 |
| 3   | Topsoil Replacement   | \$1.067    | CY    | 2070    | \$2,209         |
|   | Application Unit Cost per WDEQ Guideline No.12, App. E: assume surface grade = 0%, avg. haul distance = 400 ft. |            |       |         |                 |
| 4   | Seeding/Revegetation  |            |       |         |                 |
|   | Discing, Seeding, Mulching, \$/acre   | \$606      | acre  | 2       | \$1,212         |
|   | from Smith Ranch-Highland '08 actual cost   |            |       |         |                 |
| Subtotal Seeding/Revegetation                             |   |            |       |         | \$1,212         |
| 5   | Fence Removal   | \$0.39     | foot  | 2880    | \$1,123         |
|   | Removal Unit Cost per WDEQ Guideline 12, App. H   |            |       |         |                 |
| <b>Total Bldgs + Roads + Pkg Area Surface Reclamation</b> |   |            |       |         | <b>\$8,704</b>  |
| <b>B. R&amp;D Wellfield Area</b>                          |   |            |       |         |                 |
| 1   | Replacement of Topsoil  | \$0.902    | CY    | 1180    | \$1,064         |
|   | Application Unit Cost per WDEQ Guideline No.12, App. E: assume surface grade = 0%, avg. haul distance = 350 ft. |            |       |         |                 |
| 2   | Seeding/Revegetation  |            |       |         |                 |
|   | Discing, Seeding, Mulching, \$/acre   | \$606      | acre  | 0.8     | \$485           |
|   | from Smith Ranch-Highland '08 actual cost   |            |       |         |                 |
| Subtotal Seeding/Revegetation                             |   |            |       |         | \$485           |
| <b>Total R&amp;D Wellfield Area Surface Reclamation</b>   |   |            |       |         | <b>\$1,549</b>  |
| <b>TOTAL MISC. SURFACE RECLAMATION COSTS</b>              |   |            |       |         | <b>\$10,253</b> |



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**IV. WELL PLUGGING AND ABANDONMENT**

|  | Unit<br>Cost | Units       | Estimated<br>Quantity | Subtotal       |
|--|--------------|-------------|-----------------------|----------------|
| <b>A. Well Abandonment Costs</b>               |              |             |                       |                |
| Mobilization                                   | \$1,000      | project     | 1                     | \$1,000        |
| Scattered Wells (<25 wells) 550                | \$4.00       | linear foot | 3                     | \$6,600        |
| Removal and disposal of top few feet of casing | \$30.00      | well        | 3                     | \$90           |
| <b>Subtotal Plugging Costs</b>                 |              |             |                       | <b>\$7,690</b> |
| <b>B. Surface Reclamation<sup>a</sup></b>      |              |             |                       |                |
| Site Smoothing & Re-Seeding                    | \$50.00      | site        | 3                     | \$150          |
| <b>TOTAL PLUGGING + RECLAMATION COSTS</b>      |              |             |                       | <b>\$7,840</b> |

Based on WDEQ Guideline 12, Appendix L

<sup>a</sup> Seeding of abandoned well locations to be completed in conjunction with seeding of Exploration Camp and two-track roads.

|  |  |     |   |   |   |   |
|--|--|-----|---|---|---|---|
| Miscellaneous Wells                            |  |     |   |   |   |   |
| Total Number of Wells                          |  | 3   |   |   |   |   |
| Average Well Depth (ft)                        |  | 550 | 0 | 0 | 0 | 0 |
| Average Diameter of Casing (inches)            |  | 5   | 0 | 5 | 5 | 5 |
| Delineation Holes Estimated Next Report Period |  | 0   | 0 | 0 | 0 | 0 |
| Length of Fencing (ft)                         |  | 0   | 0 |   | 0 | 0 |
| Number of Deep Disposal Wells                  |  | 0   |   |   |   |   |
| Number of Header Houses                        |  | 0   | 0 |   |   |   |

|                                  |  |             |           |
|----------------------------------|--|-------------|-----------|
| Electrical Costs                 |  | 2013 Actual |           |
| Power cost                       |  | \$0.0597    | kWhr      |
| Kilowatt to Horsepower           |  | 0.746       | Kw/HP     |
| Horsepower per gallon per minute |  | 0.167       | HP/gpm    |
| Natural Gas                      |  | \$4.94      | per MMBTU |
| Propane                          |  | \$26.06     | per MMBTU |

|  |  |                  |                  |      |  |
|--|--|------------------|------------------|------|--|
| <b>Labor Rates</b>   |  |                  |                  |      |  |
| <b>Mountain States Employers Council, 2012 Survey, Mining Industry Compensation &amp; Benefits</b> |  |                  |                  |      |  |
|  |  | Inc 40% benefits |                  |      |  |
|  |  |                  | (i.e., overhead) |      |  |
| Environmental Manager/RSO  |  | \$46.00          | \$64.40          | hour |  |
| Restoration Manager/Hydrologist  |  | \$40.00          | \$56.00          | hour |  |
| Operator   |  | \$26.00          | \$36.40          | hour |  |
| Laborer  |  | \$26.00          | \$36.40          | hour |  |
| Engineer   |  | \$36.00          | \$50.40          | hour |  |
| Radiation/Environmental Engineering Technician   |  | \$26.00          | \$36.40          | hour |  |
| 2,080 working hours in a year  |  | 173              | hours per month  |      |  |

|   |                    |          |
|---|--------------------|----------|
| <b>Chemical Costs (Cost derived from SRH actual)</b>          | <b>2012 Actual</b> |          |
| Antiscalant for RO (HyperSpere)                               | \$34.58            | gal      |
| Antiscalant for RO (ScaleTrol)                                | \$43.59            | gal      |
| Sodium Sulfide  | \$0.51             | pound    |
| Methanol  | \$2.43             | gal      |
| Cement  | \$9.17             | sack     |
| Bentonite Tubes   | \$2.90             | tube     |
| Plug Gel  | \$8.00             | sack     |
| Well Cap  | \$7.50             | each     |
| Hydrochloric Acid   | \$0.20             | pound    |
| <b>Analytical Costs</b>                                       |                    |          |
| Guideline 8 (contract lab adjusted for current contract cost) | \$337.00           | analysis |
| 6 parameter (in-house) Est Rate (CPI)                         | \$100.00           | analysis |
| Other (radon, bio, etc.) Est Rate (CPI)                       | \$1,000.00         | month    |

|  |                          |                     |                |            |             |               |
|--|--------------------------|---------------------|----------------|------------|-------------|---------------|
| <b>Equipment Costs</b>   |                          |                     |                |            |             |               |
|  |                          |                     | Repair Reserve | Fuel Costs | Mob & Demob |               |
| Equipment  | Base Rental Rate (\$/hr) | Labor Costs (\$/hr) | Costs (\$/hr)  | (\$/hr)    | (\$/hr)     | Total (\$/hr) |
| Cat 924H Loader - 2.4 cu yd bucket                                       | \$52.93                  | N/A                 | inc            | inc        | inc.        | \$52.93       |
| Cat 416 Backhoe  | \$34.97                  | N/A                 | inc            | inc        | inc.        | \$34.97       |
| Bandit 1290XP Trailer Mounted Brush Ch                                   | \$47.93                  | N/A                 | inc            | inc        | inc         | \$47.93       |
| Cat D8T Bulldozer, Semi-U  | \$207.17                 | N/A                 | inc            | inc        | inc.        | \$207.17      |
| Pulling Unit   | \$35.32                  | inc                 | inc            | inc        | inc         | \$35.32       |
| MIT Unit   | \$30.09                  | N/A                 | inc            | inc        | inc         | \$30.09       |
| Drill Rig (workover, repair, P&A) with Ope                               | \$200.00                 | inc                 | inc            | inc        | inc         | \$200.00      |
| Goose Neck Trailer   | \$17.61                  | N/A                 | inc            | inc        | inc.        | \$17.61       |
| Manlift (JLG 600S)   | \$47.54                  | inc                 | inc            | inc        | inc         | \$47.54       |
| Cementer   | \$14.30                  | N/A                 | inc            | inc        | inc.        | \$14.30       |
| Crane Rental with Operator   | \$132.85                 | inc                 | inc            | inc        | inc         | \$132.85      |
| Cat 320C L Trackhoe - 1.25 cu yd buc                                     | \$100.03                 | N/A                 | inc            | inc        | inc         | \$100.03      |
| Concrete Jaws Labounty - CP-60   | \$18.51                  | N/A                 | inc            | inc        | inc         | \$18.51       |
| Pick-up Truck 3/4 ton 4X4  | \$32.91                  | N/A                 | inc            | inc        | inc         | \$32.91       |
| Hose Reel  | \$62.50                  | N/A                 | inc            | inc        | inc         | \$62.50       |
| Bobcat S250 Skid Steer Loader  | \$36.57                  | N/A                 | inc            | inc        | inc         | \$36.57       |
| Cat 14H Grader - 14' Blade   | \$117.73                 | N/A                 | inc            | inc        | inc         | \$117.73      |
| Cat 615C Elevating Scarper   | \$189.21                 | N/A                 | inc            | inc        | inc         | \$189.21      |
| Basis:   |                          |                     |                |            |             |               |
| Drill rig based on current 2010 contracts                                |                          |                     |                |            |             |               |
| Equipment costs are FHWA rates, from the Equipment Watch Rental          |                          |                     |                |            |             |               |
| Rate Blue Book, dated June 7, 2012. Rate is the monthly ownership cost   |                          |                     |                |            |             |               |
| divided by 176 plus the hourly estimated operating cost and is the       |                          |                     |                |            |             |               |
| standard used by the DOT for contractors. Copies of these rates used are |                          |                     |                |            |             |               |
|  |                          |                     |                | \$3.230    | gallon      |               |
|  |                          |                     |                | \$3.000    | gallon      |               |

**Waste Disposal Costs**

Disposal Costs are Based on the Current Contract With Denison Mines good through 2015  
Transportation Is Calculated from SRH

| Waste Form   | Fee          |                | Density Correction Factor (Tons/Yd3) | Disposal Fee per Cubic Yard | Transport Cost |          | Total Transportation and Disposal |
|--|--------------|----------------|--------------------------------------|-----------------------------|----------------|----------|-----------------------------------|
| Soil, Concrete, Bulk Byproduct Material  | \$138.97     | per Ton        | 1.1                                  | \$152.87                    | \$335.00       | per Yd3  | \$487.87                          |
| Unpackaged Bulk Byproduct Material (e.g., pipe)  | \$160.08     | per Ton        | 0.42                                 | \$67.23                     | \$335.00       | per Yd3  | \$402.23                          |
|  |              |                |                                      |                             |                |          | \$14.90                           |
| Solid Waste (landfill)   | \$0.00827    | per Lb         |                                      |                             | Incl.          | per Lb   | \$0.00827                         |
| Solid Waste (landfill)   | \$133.75     | per Load       |                                      |                             | Incl.          | per Load | \$133.75                          |
| Void Factor (for disposal)   | 1.25         |                |                                      |                             |                |          |                                   |
| Transportation Cost per load   | \$2,800      | yrds/load      | 30                                   | yd                          |                |          |                                   |
| Bin Rental (90 days @ \$13.00 per day)   | \$1,170      |                |                                      |                             |                |          |                                   |
| Decontamination Fee  | \$170        | per Load       |                                      |                             |                |          |                                   |
| Unloading Fee  | \$165        | per Load       |                                      |                             |                |          |                                   |
| Total Transportation   | \$4,305      |                |                                      |                             |                |          |                                   |
| Load Correction Factors - difference between solid material and when it is broken because of air space between the |              |                |                                      |                             |                |          |                                   |
|  | Pounds/CY    |                |                                      |                             |                |          |                                   |
| Material   | Solid (bank) | Broken (Loose) | % Dif                                | Load Factor                 |                |          |                                   |
| Granite  | 4538         | 2781           | 39%                                  | 0.61                        |                |          |                                   |
| Limestone  | 4401         | 2619           | 40%                                  | 0.60                        |                |          |                                   |
| Sandstone  | 3915         | 2538           | 35%                                  | 0.65                        |                |          |                                   |
| Concrete   | 3998         | 2176           | 46%                                  | 0.54                        |                |          |                                   |
| Sand & gravel  | 2700         | 2400           | 11%                                  | 0.89                        |                |          |                                   |

|   |               |                          |  |                        |    |         |  |
|---|---------------|--------------------------|--|------------------------|----|---------|--|
| Guideline No. 12 Unit Costs (Includes Profit) VS. 10/2013                                   |               |                          |  |                        |    |         |  |
| Paragraph 12, Miscellaneous (Administrative, Overhead and Contingency)                      |               |                          |  |                        |    |         |  |
| Extrapolated percentage based on numbers provided   |               |                          |  |                        | 15 | percent |  |
| App K, Cost Estimates for Demolition and Removal of Railroad Spurs and Facilities Buildings |               |                          |  |                        |    |         |  |
| Task  | Cost per unit | Regional Cost Adjustment |  | Adjusted Cost per Unit |    |         |  |
| Mixture of Types  | \$0.30 ft3    | 0.958                    |  | \$0.287 ft3            |    |         |  |
| Explosive Demolition, Concrete or Steel   | 0.29 ft3      | 0.958                    |  | \$0.278 ft3            |    |         |  |
| Disposal (Average)  | 10.04 cy      | 0.958                    |  | \$9.618 cy             |    |         |  |
| City Landfill Dump Charges  | \$74.00/ton   | 0.958                    |  | \$70.892/ton           |    |         |  |
| Concrete Footings and Foundations   |               | 0.958                    |  | \$0.000                |    |         |  |
| 6" Thick with Rebar   | 5.72 ft2      | 0.958                    |  | \$5.480 ft2            |    |         |  |
| Footings - 2' Thick, 3' Wide  | 21.1 lin. ft. | 0.958                    |  | \$20.214 lin. ft.      |    |         |  |
| Concrete Disposal On-Site   | 8.65 cy       | 0.958                    |  | \$8.287 cy             |    |         |  |
| Caterpillar 980G Front End Loader (GL 12 App. J)  | 116.22 hr     |                          |  |                        |    |         |  |
| Dumptruck (10-12 yd3) (GL 12 App. J)  | 77.16 hr      |                          |  |                        |    |         |  |
| City Landfill Dump Charges x density correction factor                                      |               | 0.42                     |  | \$31.08                |    |         |  |
|   |               |                          |  |                        |    |         |  |
| App C, Calculations for Moving Materials with a Caterpillar 637G Push-Pull Scraper Fleet    |               |                          |  | Operating Cost per     |    |         |  |
| One-Way Distance 500 feet, 0% grade   |               |                          |  | \$1.099/bcy            |    |         |  |
| One-Way Distance 1,000 feet, 0% grade   |               |                          |  | \$1.313/bcy            |    |         |  |
| One-Way Distance 2,000 feet, 0% grade   |               |                          |  | \$1.701/bcy            |    |         |  |
| One-Way Distance 6,500 feet, 5% grade, resisting  |               |                          |  | \$4.560/bcy            |    |         |  |
| App E, Calculations for Moving Material with a Caterpillar D9R Dozer                        |               |                          |  | Operating Cost per     |    |         |  |
| Distance 50 feet  |               |                          |  | \$0.160/lcy            |    |         |  |
| Distance 350 feet   |               |                          |  | \$0.902/lcy            |    |         |  |
| Distance 400'   |               |                          |  | \$1.067/lcy            |    |         |  |
| Distance 500'   |               |                          |  | \$1.409/lcy            |    |         |  |
| App. G, Calculations for final grading with a Cat 16M Motor Grader                          |               |                          |  |                        |    |         |  |
| Operating Costs   |               |                          |  | \$77.310/acre          |    |         |  |
| App H, Cost Estimates for Handling Wire Fencing and Electrical Power Lines                  |               |                          |  |                        |    |         |  |
| Fencing Removal   |               |                          |  | \$0.39/linear foot     |    |         |  |
| App I, Cost Estimate for Ripping Asphalt Using a Caterpillar D9R Dozer                      |               |                          |  | Operating Cost         |    |         |  |
|   |               |                          |  | \$881.17/acre          |    |         |  |
| App I1, Cost Estimate for Ripping Overburden Using a Caterpillar D10T Dozer                 |               |                          |  | Operating Costs        |    |         |  |
| 0.27 acre/hour  |               |                          |  | \$339.04/hour          |    |         |  |
|   |               |                          |  | \$1,255.70/acre        |    |         |  |
| Well Covers (Actual Costs -HUP)   |               |                          |  | \$8.07                 |    |         |  |
| Guideline No. 12 Unit Costs (Includes Profit) VS. 10/2012                                   |               |                          |  |                        |    |         |  |
| App J, Cost Estimate for Removing one 20' Section of CMP                                    |               |                          |  | 139.12                 |    |         |  |

|  |         |           |             |            |                 |
|--|---------|-----------|-------------|------------|-----------------|
| <b>App L, Abandonment and Sealing of Cased Drill Holes and Monitor Wells</b>               |         |           |             |            |                 |
| <b>Well Abandonment Costs</b>  |         |           |             |            |                 |
| Monitor, Production, and injection wells w/in an active ISR facility                       |         |           |             | \$2,500    | lf              |
| Scattered wells (≤25 wells)  |         |           |             | \$4,000    | lf              |
| Scattered wells (≥25 wells)  |         |           |             | \$3,000    | lf              |
| Artesian or gassy  |         |           |             | \$10,000   | ft              |
|  |         |           |             |            |                 |
| Small Site Grading   |         |           |             | \$50.00    | per site        |
| Large Site Grading   |         |           |             | \$3,000.00 | acre            |
| Caps   |         |           |             | \$10.00    | ea              |
| Mobilization Fee   |         |           |             | \$1,000.00 | Prj             |
| Location Fee   |         |           |             | \$10.00    | site            |
| Monitoring well concrete pedestal disposal   |         |           |             | \$100.00   | ea              |
| Removal and disposal of top few feet of casing   |         |           |             | \$30.00    | well            |
|  |         |           |             |            |                 |
| <b>App. M Rough Grading Backfill using Cat D9 Dozer or Cat</b>                             |         |           |             |            |                 |
| Dozer  |         |           |             | \$93.43    | per acre        |
| Cat  |         |           |             | \$58.24    | per acre        |
|  |         |           |             |            |                 |
| <b>App. O Cost to Remove One Meteorological Station</b>                                    |         |           |             |            |                 |
|  |         |           |             | \$1,014.12 | per site        |
|  |         |           |             |            |                 |
| <b>App P. Cost Estimates for Scarification of Compacted Surfaces Using Cat. 16H Grader</b> |         |           |             |            |                 |
|  | 2.9     | acre/hour |             |            | Operating Costs |
|  |         |           |             | \$205.65   | per hour        |
|  |         |           |             | \$70.91    | per acre        |
|  |         |           |             |            |                 |
| <b>Table D-1 (GL 12)</b>   |         |           |             |            |                 |
| <b>Vehicle Operating Costs</b>   |         |           |             |            |                 |
| Pickup (Gas)   | \$32.91 |           |             |            |                 |
|  |         |           |             |            |                 |
| <b>Table D-1 Operating Costs and Adjusted Costs</b>  |         |           |             |            |                 |
| Dump Truck 10-12 CY  | \$77.16 |           |             |            |                 |
| Pickup (Diesel)  | 26.12   |           |             |            |                 |
|  |         |           |             |            |                 |
| <b>Seeding Unit Costs</b>  |         |           |             |            |                 |
| Disking / Seeding/Topsoil Costs  |         |           | 2010 Actual |            |                 |
| Seed cost  |         |           | \$65.99     | per acre   |                 |
| Hay Mulch Crimped and Tackifier Soil Amendment   |         |           | \$540       | per acre   |                 |
| Seed and Mulch   |         |           | \$606       | per acre   |                 |
| Depth of Topsoil   |         |           | 0.5         | feet       |                 |

2013-2014 RECLAMATION SURETY BOND ESTIMATE  
WDEQ PERMIT No. 631 ANNUAL REPORT / NRC SUA-1548  
RUTH ISR PROJECT - CAMECO RESOURCES

**TOTAL DECOMMISSIONING AND RECLAMATION COST ESTIMATE**

|  |                  |
|--|------------------|
| I. BUILDING DEMOLITION AND DISPOSAL COSTS                            | \$79,577         |
| II. EVAPORATION POND DECOMMISSIONING COSTS                           | \$38,668         |
| III. MISC. SURFACE RECLAMATION COSTS                                 | \$10,253         |
| IV. WELL PLUGGING AND ABANDONMENT                                    | \$7,840          |
| V. FINAL STATUS SURVEY REPORT  | \$10,000         |
| SUBTOTAL   | \$146,338        |
| CONTINGENCY:   |                  |
| PROJECT MANAGEMENT + MISCELLANEOUS COSTS (25%) <sup>a</sup>          | \$36,585         |
| CONTRACTOR PROFIT + OVERHEAD + MOBILIZATION COSTS (10%) <sup>b</sup> | \$14,634         |
| <b>TOTAL RECLAMATION, ROUNDED UP</b>                                 | <b>\$198,000</b> |

<sup>a</sup> Based on WDEQ-LQD Guideline No. 12 , Section II(B)(12)(except b) and (13).

<sup>b</sup> Based on WDEQ-LQD Guideline No. 12 , Section II(B)(12)(b).

**NOTE: Salvage value is not included in any cost estimates.**

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|  | Process<br>Building | Warehouse<br>Building | Generator<br>Building |
|--|---------------------|-----------------------|-----------------------|
| <b>I. BUILDING DEMOLITION AND DISPOSAL</b>                                   |                     |                       |                       |
| <b>A. Demolition</b>   |                     |                       |                       |
| 1 Equipment  |                     |                       |                       |
| Equipment remaining on site includes 6 tanks/vessels and injection manifold. |                     |                       |                       |
| Subtotal Equipment Dismantling   | \$8,000             | \$0                   | \$0                   |
| 2 Building   |                     |                       |                       |
| Building Volume (CF)   | 80,000              | 6,000                 | 1500                  |
| Demolition Unit Cost per WDEQ Guideline 12, App. K (\$/CF)                   | \$0.287             | \$0.287               | \$0.287               |
| Subtotal Building Demolition   | \$22,992            | \$1,724               | \$431                 |
| 3 Concrete Floor   |                     |                       |                       |
| Concrete Floor Area, SF  | 4,000               | 600                   | 150                   |
| Demolition Unit Cost per WDEQ Guideline 12, App. K (\$/SF)                   | \$5.48              | \$5.48                | \$5.48                |
| Subtotal Concrete Floor Demolition   | \$21,919            | \$3,288               | \$822                 |
| 4 Concrete Footing   |                     |                       |                       |
| Concrete Footing Length (ft)   | 280                 | 0                     | 0                     |
| Demolition Unit Cost per WDEQ Guideline 12, App. K (\$/lin.ft)               | \$20.21             | \$20.21               | \$20.21               |
| Subtotal Concrete Footing Demolition   | \$5,660             | \$0                   | \$0                   |
| Subtotal Demolition per Building   | \$58,571            | \$5,012               | \$1,253               |
| <b>Total Demolition</b>  |                     |                       | <b>\$64,836</b>       |
| <b>B. Disposal</b>   |                     |                       |                       |
| 1 Equipment  |                     |                       |                       |
| Equipment Volume (CY)  | 15                  |                       |                       |
| Disposal Unit Cost (\$/ton) <sup>a</sup>                                     | \$0                 | \$0                   | \$0                   |
| Convert waste volume to tons ( 0.24 tons / CY) <sup>b</sup>                  | 4                   |                       |                       |
| QTY. Trips   | 2                   | 0                     | 0                     |
| Transportation Unit Cost (\$/trip)   | \$1,000             | \$1,000               | \$1,000               |
| Subtotal Equipment Disposal  | \$2,000             | \$0                   | \$0                   |
| 2 Buildings On-Site  |                     |                       |                       |
| Assume Thickness of building material (ft)                                   | 0.75                | 0.5                   | 0.5                   |
| Building Length (ft)   | 100                 | 30                    | 15                    |
| Building Width (ft)  | 40                  | 20                    | 10                    |
| Building Height (ft)   | 20                  | 10                    | 10                    |
| Volume of Building Materials (CY)  | 267                 | 30                    | 12                    |
| Volume for Disposal (assume 25% swell factor) (CY)                           | 334                 | 38                    | 15                    |
| Disposal Unit Cost per WDEQ Guideline 12, App. K (\$/CY)                     | \$8.29              | \$8.29                | \$8.29                |
| Subtotal Building Disposal   | \$2,768             | \$315                 | \$124                 |
| 3 Concrete Floor   |                     |                       |                       |
| Area of Concrete Floor, SF   | 4,000               | 600                   | 150                   |
| Average Thickness of Concrete Floor (ft)                                     | 0.5                 | 0.5                   | 0.5                   |
| Volume of Concrete Floor (CY)  | 74                  | 11                    | 3                     |
| a. On-Site Disposal  |                     |                       |                       |
| Percentage (%) <sup>b</sup>  | 90%                 | 100%                  | 100%                  |
| Volume for Disposal (CY)   | 66.6                | 11                    | 3                     |
| Disposal Unit Cost per WDEQ Guideline 12, App. K (\$/CY)                     | \$8.29              | \$8.29                | \$8.29                |
| Subtotal On-Site Disposal  | \$552               | \$91                  | \$25                  |

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|  | Process<br>Building | Warehouse<br>Building | Generator<br>Building |
|--|---------------------|-----------------------|-----------------------|
| <b>I. BUILDING DEMOLITION AND DISPOSAL</b>   |                     |                       |                       |
| b. NRC-Licensed Facility   |                     |                       |                       |
| Percentage (%) <sup>c</sup>  | 10%                 | 0%                    | 0%                    |
| Disposal Volume (CY)   | 7.4                 | 0                     | 0                     |
| Assume 50% volume swell factor (CY)  | 11                  | 0                     | 0                     |
| Disposal Unit Cost (\$/ton) <sup>a</sup>   | 138.97              | 138.97                | 138.97                |
| Convert waste volume to tons ( 0.24 tons / CY) <sup>b</sup>  | 2.64                | 0                     | 0                     |
| QTY. Trips   | 1                   | 0                     | 0                     |
| Transportation Unit Cost (\$/trip)   | \$335               | \$335                 | \$335                 |
| Subtotal NRC-Licensed Facility Disposal  | \$702               | \$0                   | \$0                   |
| Subtotal Concrete Floor Disposal   | \$1,254             | \$91                  | \$25                  |
| 4 Concrete Footing On-Site   |                     |                       |                       |
| Length Concrete Footing (ft)   | 280                 | 0                     | 0                     |
| Average Thickness Concrete Footing (ft)  | 4                   | 4                     | 4                     |
| Average Width Concrete Footing (ft)  | 1                   | 1                     | 1                     |
| Concrete Footing Volume (CY)   | 41                  | 0                     | 0                     |
| Disposal Unit Cost per WDEQ Guideline 12, App. K (\$/CY)   | \$8.29              | \$8.29                | \$8.29                |
| Subtotal Concrete Footing Disposal   | \$340               | \$0                   | \$0                   |
| Subtotal Disposal per Building   | \$6,362             | \$406                 | \$149                 |
| <b>Total Disposal</b>  |                     |                       | <b>\$6,917</b>        |
| <b>C. Radiation Surveys and Soil Sampling</b>  |                     |                       |                       |
| Assume: environmental and personnel monitoring (TLD) not required, based on NRC regulations and ambient levels of radiation on-site. |                     |                       |                       |
| 1 Equipment (Alpha/Gamma Surveys and Smear Samples)  |                     |                       |                       |
| QTY. Weeks   | 2                   | 0                     | 0                     |
| Rental Rate (\$/week)  | \$250               | \$250                 | \$250                 |
| Subtotal Equipment   | \$500               | \$0                   | \$0                   |
| 2 Labor (Surveys and Soil Sampling)  |                     |                       |                       |
| QTY. Hours   | 80                  | 0                     | 0                     |
| Labor, per Mountain States Employers Council   | \$36.40             | \$36.40               | \$36.40               |
| Subtotal Labor   | \$2,912             | \$0                   | \$0                   |
| 3 Analytical   |                     |                       |                       |
| QTY. Samples   | 5                   | 0                     | 0                     |
| Ra-226 Analytical (\$/sample)  | \$100               | \$100                 | \$100                 |
| Subtotal Analytical  | \$500               | \$0                   | \$0                   |
| <b>Total Radiation Survey + Soil Sampling</b>  |                     |                       | <b>\$3,912</b>        |
| <b>SUBTOTAL INDIVIDUAL BLDG. DEMOLITION + DISPOSAL COSTS</b>   | <b>\$68,845</b>     | <b>\$5,418</b>        | <b>\$5,314</b>        |
| <b>TOTAL ALL BUILDING DEMOLITION + DISPOSAL COST</b>   |                     |                       | <b>\$79,577</b>       |

Notes:

a - Per Byproduct Material Disposal Agreement with Dennison Mines

b - Florida Dept. Environmental Protection: *Converting C&D Debris from Volume to Weight, a Fact Sheet for C&D Debris Facility Operators* [[www.floridacenter.org/C&Dconversion.html](http://www.floridacenter.org/C&Dconversion.html)]

c - Based on radiation surveys conducted by Pathfinder Mines Co. during October - November 2001 (see site transfer letter dated November 2, 2001).

CF - cubic feet

CY - cubic yards

ft - feet

in - inches

lin. ft - linear feet

SF - square feet

QTY - quantity

2013-2014 RECLAMATION SURETY BOND ESTIMATE  
WDEQ PERMIT No. 631 ANNUAL REPORT / NRC SUA-1548  
RUTH ISR PROJECT - CAMECO RESOURCES

| II. EVAPORATION POND DECOMMISSIONING |  | Pond No. 1 | Pond No. 2      |
|--------------------------------------|--|------------|-----------------|
| <b>A.</b>                            | <b>By-product Material Removal and Loading</b>     |            |                 |
| 1                                    | Volume of By-product Material                      |            |                 |
|                                      | Area of Pond Bottom (SF)                           | 22,138     | 21,947          |
| a.                                   | Area with Fill (SF)                                | 2,813      | 0               |
|                                      | Average Fill Thickness (in)                        | 3.5        | 0               |
|                                      | Volume of Fill (CY)                                | 30         | 0               |
| b.                                   | Remaining Area with Pond Residue (SF)              | 19,325     | 21,947          |
|                                      | Average Pond Residue Thickness (in)                | 1          | 0.5             |
|                                      | Volume of Pond Residue (CY)                        | 60         | 34              |
| c.                                   | Area of Liner (SF)                                 | 22,138     | 21,947          |
|                                      | Thickness of Liner (in)                            | 0.036      | 0.036           |
|                                      | Volume of Liner (CY)                               | 2.5        | 2.4             |
|                                      | Volume of Liner Assuming 25% Void Space (CY)       | 3          | 3               |
| d.                                   | Area of Contaminated Sump and Drain (SF)           | 0          | 1               |
|                                      | Length of Sump and Drain (ft)                      | 0          | 240             |
|                                      | Volume of Sump and Drain (CY)                      | 0          | 9               |
| e.                                   | Diameter of Contaminated Soil (ft)                 | 0          | 10              |
|                                      | Contaminated Soil Thickness (in)                   | 0          | 6               |
|                                      | Volume of Contaminated Soil (CY)                   | 0          | 1               |
|                                      | Subtotal Volume By-product Material (CY)           | 93         | 47              |
| 2                                    | Equipment (Front-End Loader)                       |            |                 |
|                                      | QTY. Hours   | 40         | 20              |
|                                      | Operating (\$/hr),                                 | \$116      | \$116           |
|                                      | Loader Cat 924G Loader Guideline 12                |            |                 |
|                                      | Subtotal Equipment                                 | \$4,649    | \$2,324         |
| 3                                    | Labor, per Mountain States Employers Council       |            |                 |
|                                      | QTY. Hours   | 40         | 20              |
|                                      | QTY. Laborers                                      | 3          | 3               |
|                                      | Labor (\$/hr)                                      | \$36.40    | \$36.40         |
|                                      | Subtotal Labor                                     | \$4,368    | \$2,184         |
|                                      | By-product Material Removal and Loading Per Pond   | \$9,017    | \$4,508         |
|                                      | <b>Total By-product Material Removal + Loading</b> |            | <b>\$13,525</b> |
| <b>B.</b>                            | <b>Transportation and Disposal</b>                 |            |                 |
|                                      | Total Volume of Byproduct Material (CY)            | 93         | 47              |
|                                      | Transportation & Disposal                          |            |                 |
|                                      | Volume of Soil per Trip (CY/trip)                  | 30         | 30              |
|                                      | QTY. Trips   | 3          | 2               |
|                                      | per Trip (\$/trip)                                 | \$488      | \$488           |
|                                      | Subtotal Transportation + Disposal per pond        | \$1,463.60 | \$976           |
|                                      | <b>Total Transportation + Disposal</b>             |            | <b>\$2,439</b>  |



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| II. EVAPORATION POND DECOMMISSIONING |   |  |  | Pond No. 1 | Pond No. 2      |
|--------------------------------------|---|--|--|------------|-----------------|
| <b>C.</b>                            | <b>Ripping</b>  |  |  |            |                 |
|                                      | Area (acres)  |  |  | 0.5        | 0.5             |
|                                      | Ripping Unit Cost per WDEQ Guideline 12, App. I (\$/acre)       |  |  | \$881.17   | \$881.17        |
|                                      |   |  | Subtotal Ripping per pond  | \$441      | \$441           |
|                                      |   |  | <b>Total Ripping</b>   |            | <b>\$882</b>    |
| <b>D.</b>                            | <b>Backfilling</b>  |  |  |            |                 |
|                                      | Volume of Soil (CY)   |  |  | 5400       | 5400            |
|                                      | Backfilling Unit Cost per WDEQ Guideline 12, App. E (\$/CY)     |  |  | \$0.266    | \$0.266         |
|                                      | Assume: Surface grade = 0%; Avg. haul distance = 100 ft.        |  |  |            |                 |
|                                      |   |  | Subtotal Backfilling per pond  | \$1,436    | \$1,436         |
|                                      |   |  | <b>Total Backfilling</b>   |            | <b>\$2,872</b>  |
| <b>E.</b>                            | <b>Grading</b>  |  |  |            |                 |
|                                      | Area (acres)  |  |  | 1.5        | 1.5             |
|                                      | Rough Grading Unit Cost per WDEQ Guideline 12, App. M (\$/acre) |  |  | \$93.43    | \$93.43         |
|                                      | Final Grading Unit Cost per WDEQ Guideline 12, App. G (\$/acre) |  |  | \$77.31    | \$77.31         |
|                                      |   |  | Subtotal Grading per pond  | \$256      | \$256           |
|                                      |   |  | <b>Total Grading</b>   |            | <b>\$512</b>    |
| <b>F.</b>                            | <b>Replacement of Topsoil</b>                                   |  |  |            |                 |
|                                      | Volume of Topsoil (CY)  |  |  | 3756       | 3756            |
|                                      | Application Unit Cost per WDEQ Guideline No.12, App.E (\$/CY)   |  |  | \$1.409    | \$1.409         |
|                                      | Assume Surface grade = 0%, Avg. haul distance = 400 ft.         |  |  |            |                 |
|                                      |   |  | Subtotal Topsoil Replacement per pond  | \$5,292    | \$5,292         |
|                                      |   |  | <b>Total Topsoil Replacement</b>   |            | <b>\$10,584</b> |
| <b>G.</b>                            | <b>Seeding/Revegetation</b>                                     |  |  |            |                 |
|                                      | Area (acres)  |  |  | 1.5        | 1.5             |
|                                      | Discing, Seeding, Mulching, \$/acre                             |  |  | \$606      | \$606           |
|                                      |   |  | from Smith Ranch-Highland 2010 actual cost   |            |                 |
|                                      |   |  | Subtotal Seeding/Revegetation per pond   | \$909      | \$909           |
|                                      |   |  | <b>Total Seeding/Revegetation</b>  |            | <b>\$1,818</b>  |
| <b>H.</b>                            | <b>Fence Removal</b>  |  |  |            |                 |
|                                      | Length (ft)   |  |  | 800        | 800             |
|                                      | Fence Removal Unit Cost per WDEQ Guideline 12, App. H (\$/ft)   |  |  | \$0.39     | \$0.39          |
|                                      |   |  | Subtotal Fence Removal per pond  | \$312      | \$312           |
|                                      |   |  | <b>Total Fence Removal</b>   |            | <b>\$624</b>    |
| <b>I.</b>                            | <b>Radiation Surveys and Soil Sampling</b>                      |  |  |            |                 |
|                                      |   |  | Assume: environmental and personnel monitoring (TLD) not required, based on NRC regulations and ambient levels of radiation on-site. |            |                 |
|                                      | <b>1</b>  | <b>Equipment (Alpha/Gamma Surveys and Smear Samples)</b> |  |            |                 |
|                                      |   | QTY. Weeks   |  | 1          | 1               |
|                                      |   | Rental Rate (\$/week)                                    |  | \$250      | \$250           |
|                                      |   |  | Subtotal Equipment   | \$250      | \$250           |
|                                      | <b>2</b>  | <b>Labor (Surveys and Soil Sampling)</b>                 |  |            |                 |
|                                      |   | QTY. Hours   |  | 40         | 40              |
|                                      |   | Labor, per WDEQ Guideline 12 App's. N & O                |  | \$36.40    | \$36.40         |
|                                      |   |  | Subtotal Labor   | \$1,456    | \$1,456         |

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| II. EVAPORATION POND DECOMMISSIONING |   |  |  | Pond No. 1      | Pond No. 2      |
|--------------------------------------|---|--|--|-----------------|-----------------|
|                                      | 3 | Analytical   |  |                 |                 |
|                                      |   | QTY. Samples                                       |  | 10              | 10              |
|                                      |   | Ra-226 Analytical (\$/sample)                      |  | \$100           | \$100           |
|                                      |   |  | Subtotal Analytical per pond                       | \$1,000         | \$1,000         |
|                                      |   |  | Subtotal Radiation Survey + Soil Sampling per pond | \$2,706         | \$2,706         |
|                                      |   |  | <b>Total Radiation Survey + Soil Sampling</b>      |                 | <b>\$5,412</b>  |
|                                      |   | SUBTOTAL EVAPORATION POND DECOMMISSIONING COSTS    |  | <u>\$21,833</u> | <u>\$16,836</u> |
|                                      |   | <b>TOTAL EVAPORATION POND DECOMMISSIONING COST</b> |  |                 | <b>\$38,668</b> |

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| III. MISC. SURFACE RECLAMATION  | Unit Cost  | Units | Est Qty | Subtotal        |
|---|------------|-------|---------|-----------------|
| <b>A. Buildings, Roads, and Parking Areas</b>   |            |       |         |                 |
| 1 Gravel Removal  | \$1.099    | CY    | 1500    | \$1,649         |
| Removal Unit Cost per WDEQ Guideline 12, App. C: assume surface Grade = 0%, avg. haul distance = 500 ft.        |            |       |         |                 |
| 2 Ripping   | \$1,255.70 | acre  | 2       | \$2,511         |
| Ripping Unit Cost per WDEQ Guideline 12, App. I1  |            |       |         |                 |
| 3 Topsoil Replacement   | \$1.067    | CY    | 2070    | \$2,209         |
| Application Unit Cost per WDEQ Guideline No.12, App. E: assume surface grade = 0%, avg. haul distance = 400 ft. |            |       |         |                 |
| 4 Seeding/Revegetation  |            |       |         |                 |
| Discing, Seeding, Mulching, \$/acre   | \$606      | acre  | 2       | \$1,212         |
| from Smith Ranch-Highland '08 actual cost   |            |       |         |                 |
| Subtotal Seeding/Revegetation   |            |       |         | \$1,212         |
| 5 Fence Removal   | \$0.39     | foot  | 2880    | \$1,123         |
| Removal Unit Cost per WDEQ Guideline 12, App. H   |            |       |         |                 |
| <b>Total Bldgs + Roads + Pkg Area Surface Reclamation</b>   |            |       |         | <b>\$8,704</b>  |
| <b>B. R&amp;D Wellfield Area</b>  |            |       |         |                 |
| 1 Replacement of Topsoil  | \$0.902    | CY    | 1180    | \$1,064         |
| Application Unit Cost per WDEQ Guideline No.12, App. E: assume surface grade = 0%, avg. haul distance = 350 ft. |            |       |         |                 |
| 2 Seeding/Revegetation  |            |       |         |                 |
| Discing, Seeding, Mulching, \$/acre   | \$606      | acre  | 0.8     | \$485           |
| from Smith Ranch-Highland '08 actual cost   |            |       |         |                 |
| Subtotal Seeding/Revegetation   |            |       |         | \$485           |
| <b>Total R&amp;D Wellfield Area Surface Reclamation</b>   |            |       |         | <b>\$1,549</b>  |
| <b>TOTAL MISC. SURFACE RECLAMATION COSTS</b>  |            |       |         | <b>\$10,253</b> |

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**IV. WELL PLUGGING AND ABANDONMENT**

|  |     | Unit<br>Cost | Units       | Estimated<br>Quantity | Subtotal       |
|--|-----|--------------|-------------|-----------------------|----------------|
| <b>A. Well Abandonment Costs</b>               |     |              |             |                       |                |
| Mobilization                                   |     | \$1,000      | project     | 1                     | \$1,000        |
| Scattered Wells (<25 wells)                    | 550 | \$4.00       | linear foot | 3                     | \$6,600        |
| Removal and disposal of top few feet of casing |     | \$30.00      | well        | 3                     | \$90           |
| <b>Subtotal Plugging Costs</b>                 |     |              |             |                       | <b>\$7,690</b> |
| <b>B. Surface Reclamation<sup>a</sup></b>      |     |              |             |                       |                |
| Site Smoothing & Re-Seeding                    |     | \$50.00      | site        | 3                     | \$150          |
| <b>TOTAL PLUGGING + RECLAMATION COSTS</b>      |     |              |             |                       | <b>\$7,840</b> |

Based on WDEQ Guideline 12, Appendix L

<sup>a</sup> Seeding of abandoned well locations to be completed in conjunction with seeding of Exploration Camp and two-track roads.

|  |  |     |   |   |   |   |
|--|--|-----|---|---|---|---|
| Miscellaneous Wells                            |  |     |   |   |   |   |
| Total Number of Wells                          |  | 3   |   |   |   |   |
| Average Well Depth (ft)                        |  | 550 | 0 | 0 | 0 | 0 |
| Average Diameter of Casing (inches)            |  | 5   | 0 | 5 | 5 | 5 |
| Delineation Holes Estimated Next Report Period |  | 0   | 0 | 0 | 0 | 0 |
| Length of Fencing (ft)                         |  | 0   | 0 |   | 0 | 0 |
| Number of Deep Disposal Wells                  |  | 0   |   |   |   |   |
| Number of Header Houses                        |  | 0   | 0 |   |   |   |

|                                  |  |             |           |
|----------------------------------|--|-------------|-----------|
| Electrical Costs                 |  | 2013 Actual |           |
| Power cost                       |  | \$0.0597    | kwHr      |
| Kilowatt to Horsepower           |  | 0.746       | Kw/HP     |
| Horsepower per gallon per minute |  | 0.167       | HP/gpm    |
| Natural Gas                      |  | \$4.94      | per MMBTU |
| Propane                          |  | \$26.06     | per MMBTU |

|  |  |                  |                  |      |  |
|--|--|------------------|------------------|------|--|
| <b>Labor Rates</b>   |  |                  |                  |      |  |
| <b>Mountain States Employers Council, 2012 Survey, Mining Industry Compensation &amp; Benefits</b> |  |                  |                  |      |  |
|  |  | Inc 40% benefits |                  |      |  |
|  |  |                  | (i.e., overhead) |      |  |
| Environmental Manager/RSO  |  | \$46.00          | \$84.40          | hour |  |
| Restoration Manager/Hydrologist  |  | \$40.00          | \$56.00          | hour |  |
| Operator   |  | \$26.00          | \$36.40          | hour |  |
| Laborer  |  | \$26.00          | \$36.40          | hour |  |
| Engineer   |  | \$36.00          | \$50.40          | hour |  |
| Radiation/Environmental Engineering Technician   |  | \$26.00          | \$36.40          | hour |  |
| 2,080 working hours in a year  |  | 173              | hours per month  |      |  |

|   |                    |          |
|---|--------------------|----------|
| <b>Chemical Costs (Cost derived from SRH actual)</b>          | <b>2012 Actual</b> |          |
| Antiscalant for RO (HyperSperse)                              | \$34.58            | gal      |
| Antiscalant for RO (ScaleTrol)                                | \$43.59            | gal      |
| Sodium Sulfide  | \$0.51             | pound    |
| Methanol  | \$2.43             | gal      |
| Cement  | \$9.17             | sack     |
| Bentonite Tubes   | \$2.90             | tube     |
| Plug Gel  | \$8.00             | sack     |
| Well Cap  | \$7.50             | each     |
| Hydrochloric Acid   | \$0.20             | pound    |
| <b>Analytical Costs</b>                                       |                    |          |
| Guideline 8 (contract lab adjusted for current contract cost) | \$337.00           | analysis |
| 6 parameter (in-house) Est Rate (CPI)                         | \$100.00           | analysis |
| Other (radon, bio, etc.) Est Rate (CPI)                       | \$1,000.00         | month    |

|  |                          |                     |                       |                   |                        |               |
|--|--------------------------|---------------------|-----------------------|-------------------|------------------------|---------------|
| <b>Equipment Costs</b>   |                          |                     |                       |                   |                        |               |
|  |                          |                     | <u>Repair Reserve</u> | <u>Fuel Costs</u> | <u>Mob &amp; Demob</u> |               |
| Equipment  | Base Rental Rate (\$/hr) | Labor Costs (\$/hr) | Costs (\$/hr)         | (\$/hr)           | (\$/hr)                | Total (\$/hr) |
| Cat 924H Loader - 2.4 cu yd bucket   | \$52.93                  | N/A                 | inc                   | inc               | inc.                   | \$52.93       |
| Cat 416 Backhoe  | \$34.97                  | N/A                 | inc                   | inc               | inc.                   | \$34.97       |
| Bandit 1290XP Trailer Mounted Brush Ch   | \$47.93                  | N/A                 | inc                   | inc               | inc                    | \$47.93       |
| Cat D8T Bulldozer, Semi-U  | \$207.17                 | N/A                 | inc                   | inc               | inc.                   | \$207.17      |
| Pulling Unit   | \$35.32                  | inc                 | inc                   | inc               | inc                    | \$35.32       |
| MIT Unit   | \$30.09                  | N/A                 | inc                   | inc               | inc                    | \$30.09       |
| Drill Rig (workover, repair, P&A) with Ope   | \$200.00                 | inc                 | inc                   | inc               | inc                    | \$200.00      |
| Goose Neck Trailer   | \$17.61                  | N/A                 | inc                   | inc               | inc.                   | \$17.61       |
| Manlift (JLG 600S)   | \$47.54                  | inc                 | inc                   | inc               | inc                    | \$47.54       |
| Cementer   | \$14.30                  | N/A                 | inc                   | inc               | inc.                   | \$14.30       |
| Crane Rental with Operator   | \$132.85                 | inc                 | inc                   | inc               | inc                    | \$132.85      |
| Cat 320C L Trackhoe - 1.25 cu yd buc   | \$100.03                 | N/A                 | inc                   | inc               | inc                    | \$100.03      |
| Concrete Jaws Labounty - CP-60   | \$18.51                  | N/A                 | inc                   | inc               | inc                    | \$18.51       |
| Pick-up Truck 3/4 ton 4X4  | \$32.91                  | N/A                 | inc                   | inc               | inc                    | \$32.91       |
| Hose Reel  | \$62.50                  | N/A                 | inc                   | inc               | inc                    | \$62.50       |
| Bobcat S250 Skid Steer Loader  | \$36.57                  | N/A                 | inc                   | inc               | inc                    | \$36.57       |
| Cat 14H Grader - 14' Blade   | \$117.73                 | N/A                 | inc                   | inc               | inc                    | \$117.73      |
| Cat 815C Elevating Scarper   | \$189.21                 | N/A                 | inc                   | inc               | inc                    | \$189.21      |
| Basis:   |                          |                     |                       |                   |                        |               |
| Drill rig based on current 2010 contracts  |                          |                     |                       |                   |                        |               |
| Equipment costs are FHWA rates, from the Equipment Watch Rental Rate Blue Book, dated June 7, 2012. Rate is the monthly ownership cost divided by 176 plus the hourly estimated operating cost and is the standard used by the DOT for contractors. Copies of these rates used are |                          |                     |                       |                   |                        |               |
|  |                          |                     |                       | \$3.230           | gallon                 |               |
|  |                          |                     |                       | \$3.000           | gallon                 |               |

**Waste Disposal Costs**

Disposal Costs are Based on the Current Contract With Denison Mines good through 2015  
Tansportation Is Calculated from SRH

| Waste Form   | Fee          |                | Density<br>Correction<br>Factor<br>(Tons/Yd3) | Disposal<br>Fee per<br>Cubic<br>Yard | Transport<br>Cost |          | Total<br>Transport<br>ation and<br>Disposal |
|--|--------------|----------------|---|--------------------------------------|-------------------|----------|---|
| Soil, Concrete, Bulk Byproduct Material  | \$138.97     | per Ton        | 1.1   | \$152.87                             | \$335.00          | per Yd3  | \$487.87                                    |
| Unpackaged Bulk Byproduct Material (e.g., pipe)  | \$160.08     | per Ton        | 0.42  | \$67.23                              | \$335.00          | per Yd3  | \$402.23                                    |
|  |              |                |   |                                      |                   |          | \$14.90                                     |
| Solid Waste (landfill)   | \$0.00827    | per Lb         |   |                                      | Incl.             | per Lb   | \$0.00827                                   |
| Solid Waste (landfill)   | \$133.75     | per Load       |   |                                      | Incl.             | per Load | \$133.75                                    |
| Void Factor (for disposal)   | 1.25         |                |   |                                      |                   |          |   |
| Transportation Cost per load   | \$2,800      | yrds/load      | 30  | yd                                   |                   |          |   |
| Bin Rental (90 days @ \$13.00 per day)   | \$1,170      |                |   |                                      |                   |          |   |
| Decontamination Fee  | \$170        | per Load       |   |                                      |                   |          |   |
| Unloading Fee  | \$165        | per Load       |   |                                      |                   |          |   |
| Total Transportation   | \$4,305      |                |   |                                      |                   |          |   |
| Load Correction Factors - difference between solid material and when it is broken because of air space between the |              |                |   |                                      |                   |          |   |
|  | Pounds/CY    |                |   |                                      |                   |          |   |
| Material   | Solid (bank) | Broken (Loose) | % Dif   | Load Factor                          |                   |          |   |
| Granite  | 4536         | 2781           | 39%   | 0.61                                 |                   |          |   |
| Limestone  | 4401         | 2619           | 40%   | 0.60                                 |                   |          |   |
| Sandstone  | 3915         | 2538           | 35%   | 0.65                                 |                   |          |   |
| Concrete   | 3998         | 2176           | 46%   | 0.54                                 |                   |          |   |
| Sand & gravel  | 2700         | 2400           | 11%   | 0.89                                 |                   |          |   |

|   |                 |                          |  |                        |            |                    |  |
|---|-----------------|--------------------------|--|------------------------|------------|--------------------|--|
| Guideline No. 12 Unit Costs (Includes Profit) VS. 10/2013                                   |                 |                          |  |                        |            |                    |  |
| Paragraph 12, Miscellaneous (Administrative, Overhead and Contingency)                      |                 |                          |  |                        |            |                    |  |
| Extrapolated percentage based on numbers provided   |                 |                          |  |                        | 15         | percent            |  |
| App K, Cost Estimates for Demolition and Removal of Railroad Spurs and Facilities Buildings |                 |                          |  |                        |            |                    |  |
| Task  | Cost per unit   | Regional Cost Adjustment |  | Adjusted Cost per Unit |            |                    |  |
| Mixture of Types  | \$0.30 /ft3     | 0.958                    |  | \$0.287 /ft3           |            |                    |  |
| Explosive Demolition, Concrete or Steel   | 0.29 /ft3       | 0.958                    |  | \$0.278 /ft3           |            |                    |  |
| Disposal (Average)  | 10.04 /cy       | 0.958                    |  | \$9.618 /cy            |            |                    |  |
| City Landfill Dump Charges  | \$74.00 /ton    | 0.958                    |  | \$70.892 /ton          |            |                    |  |
| Concrete Footings and Foundations   |                 | 0.958                    |  | \$0.000                |            |                    |  |
| 6" Thick with Rebar   | 5.72 /ft2       | 0.958                    |  | \$5.480 /ft2           |            |                    |  |
| Footings - 2' Thick, 3' Wide  | 21.1 /lin. ft.  | 0.958                    |  | \$20.214 /lin. ft.     |            |                    |  |
| Concrete Disposal On-Site   | 8.65 /cy        | 0.958                    |  | \$8.287 /cy            |            |                    |  |
| Caterpillar 980G Front End Loader (GL 12 App. J)  | 116.22 /hr      |                          |  |                        |            |                    |  |
| Dumptruck (10-12 yd3) (GL 12 App. J)  | 77.16 /hr       |                          |  |                        |            |                    |  |
| City Landfill Dump Charges x density correction factor                                      |                 | 0.42                     |  | \$31.08                |            |                    |  |
|   |                 |                          |  |                        |            |                    |  |
| App C, Calculations for Moving Materials with a Caterpillar 637G Push-Pull Scraper Fleet    |                 |                          |  |                        |            | Operating Cost per |  |
| One-Way Distance 500 feet, 0% grade   |                 |                          |  | \$1.099 /bcy           |            |                    |  |
| One-Way Distance 1,000 feet, 0% grade   |                 |                          |  | \$1.313 /bcy           |            |                    |  |
| One-Way Distance 2,000 feet, 0% grade   |                 |                          |  | \$1.701 /bcy           |            |                    |  |
| One-Way Distance 6,500 feet, 5% grade, resisting  |                 |                          |  | \$4.560 /bcy           |            |                    |  |
| App E, Calculations for Moving Material with a Caterpillar D9R Dozer                        |                 |                          |  |                        |            | Operating Cost per |  |
| Distance 50 feet  |                 |                          |  | \$0.160 /lcy           |            |                    |  |
| Distance 350 feet   |                 |                          |  | \$0.902 /lcy           |            |                    |  |
| Distance 400'   |                 |                          |  | \$1.067 /lcy           |            |                    |  |
| Distance 500'   |                 |                          |  | \$1.409 /lcy           |            |                    |  |
| App. G, Calculations for final grading with a Cat 16M Motor Grader                          |                 |                          |  |                        |            |                    |  |
| Operating Costs   |                 |                          |  |                        | \$77.310   | per acre           |  |
| App H, Cost Estimates for Handling Wire Fencing and Electrical Power Lines                  |                 |                          |  |                        |            |                    |  |
| Fencing Removal   |                 |                          |  |                        | \$0.39     | linear foot        |  |
| App I, Cost Estimate for Ripping Asphalt Using a Caterpillar D9R Dozer                      |                 |                          |  |                        |            | Operating Cost     |  |
|   |                 |                          |  |                        | \$881.17   | per acre           |  |
| App 11, Cost Estimate for Ripping Overburden Using a Caterpillar D10T Dozer                 |                 |                          |  |                        |            | Operating Costs    |  |
|   | 0.27 /acre/hour |                          |  |                        | \$339.04   | per hour           |  |
|   |                 |                          |  |                        | \$1,255.70 | per acre           |  |
| Well Covers (Actual Costs -HUP)   |                 | \$8.07                   |  |                        |            |                    |  |
| Guideline No. 12 Unit Costs (Includes Profit) VS. 10/2012                                   |                 |                          |  |                        |            |                    |  |
| App J, Cost Estimate for Removing one 20' Section of CMP                                    |                 |                          |  |                        | 139.12     |                    |  |

|  |         |           |             |            |                 |
|--|---------|-----------|-------------|------------|-----------------|
| <b>App L, Abandonment and Sealing of Cased Drill Holes and Monitor Wells</b>               |         |           |             |            |                 |
| <b>Well Abandonment Costs</b>  |         |           |             |            |                 |
| <b>Monitor, Production, and Injection wells w/in an active ISR facility</b>                |         |           |             |            |                 |
| Scattered wells (≤25 wells)  |         |           |             | \$2,500    | If              |
| Scattered wells (≥25 wells)  |         |           |             | \$4,000    | If              |
| Artesian or gassy  |         |           |             | \$3,000    | If              |
|  |         |           |             | \$10,000   | ft              |
| <b>Small Site Grading</b>  |         |           |             |            |                 |
| Large Site Grading   |         |           |             | \$50.00    | per site        |
| Caps   |         |           |             | \$3,000.00 | acre            |
| Mobilization Fee   |         |           |             | \$10.00    | ea              |
| Location Fee   |         |           |             | \$1,000.00 | Prj             |
| Monitoring well concrete pedestal disposal   |         |           |             | \$10.00    | site            |
| Removal and disposal of top few feet of casing   |         |           |             | \$100.00   | ea              |
|  |         |           |             | \$30.00    | well            |
| <b>App. M Rough Grading Backfill using Cat D9 Dozer or Cat</b>                             |         |           |             |            |                 |
| Dozer  |         |           |             | \$93.43    | per acre        |
| Cat  |         |           |             | \$58.24    | per acre        |
| <b>App. O Cost to Remove One Meteorological Station</b>                                    |         |           |             |            |                 |
|  |         |           |             | \$1,014.12 | per site        |
| <b>App P. Cost Estimates for Scarification of Compacted Surfaces Using Cat. 16H Grader</b> |         |           |             |            |                 |
|  |         |           |             |            | Operating Costs |
|  | 2.9     | acre/hour |             | \$205.65   | per hour        |
|  |         |           |             | \$70.91    | per acre        |
| <b>Table D-1 (GL 12)</b>   |         |           |             |            |                 |
| <b>Vehicle Operating Costs</b>   |         |           |             |            |                 |
| Pickup (Gas)   | \$32.91 |           |             |            |                 |
| <b>Table D-1 Operating Costs and Adjusted Costs</b>  |         |           |             |            |                 |
| Dump Truck 10-12 CY  | \$77.16 |           |             |            |                 |
| Pickup (Diesel)  | 26.12   |           |             |            |                 |
| <b>Seeding Unit Costs</b>  |         |           |             |            |                 |
| Disking / Seeding/Topsoil Costs  |         |           | 2010 Actual |            |                 |
| Seed cost  |         |           | \$65.99     | per acre   |                 |
| Hay Mulch Crimped and Tackifier Soil Amendment   |         |           | \$540       | per acre   |                 |
| Seed and Mulch   |         |           | \$606       | per acre   |                 |
| Depth of Topsoil   |         |           | 0.5         | feet       |                 |