Table RP-4 Reclamation/Restoration Bond Estimate (Page 1 of 37)

LOST CREEK ISR, LLC SUMMARY OF RECLAMATION/RESTORATION BOND ESTIMATE

| 1 | GROUNDWATER RESTORATION - Worksheet 1 | \$3,274,790 |
| :---: | :---: | :---: |
| II | DECOMMISSIONING AND SURFACE RECLAMATION | \$1,493,958 |
|  | A. Plant Equipment Removal and Disposal - Worksheet 2 | \$73,724 |
|  | B. Plant Building Demolition and Disposal - Worksheet 3 | \$601,999 |
|  | C. Storage Pond Sludge and Liner Handling - Worksheet 4 | \$271,003 |
|  | D. Well Abandonment - Worksheet 5 | \$185,408 |
|  | E. Wellfield Equipment Removal and Disposal - Worksheet 6 | \$182,997 |
|  | F. Topsoil Replacement and Revegetation - Worksheet 7 | \$108,166 |
|  | G. Miscellaneous Reclamation Activities - Worksheet 8 | \$70,662 |

SUBTOTAL RESTORATION AND RECLAMATION $\quad \$ 4,768,748$
III TOTAL CONTINGENCY $\quad \$ 1,382,937$

| Miscellaneous Items (Footnote 1) | 25\% | = | \$1,192,187 |
| :---: | :---: | :---: | :---: |
| Project Design |  |  |  |
| Contractor Profit \& Mobilization |  |  |  |
| Pre-Construction Investigation |  |  |  |
| Project Management |  |  |  |
| On-Site Monitoring |  |  |  |
| Site Security \& Liability Assurance |  |  |  |
| Longterm Administration |  |  |  |
| Contingency (Footnote 2) | 4\% | = | \$190,750 |
| AL RESTORATION AND RECLAMATION |  |  | \$6,151,685 |

Footnote 1: In accordance with WDEQ-LQD Guideline 12, Section II, B, 12.
Footnote 2: In accordance with WDEQ-LQD Guideline 12, Section II, B, 13.

Table RP-4 Reclamation/Restoration Bond Estimate (Page 2 of 37)

| LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Assumptions/ltems | $\begin{gathered} \hline \text { Mine Unit } \\ \text { No. } 1 \\ \hline \end{gathered}$ | Explanation | Source |
| Technical Assumptions: |  |  |  |
| Wellfield Area (Square Feet) | 1,057,797 | Proposed area | Data |
| Wellfield Area (Acres) | 24.28 |  | Calculated |
| Affected Ore Zone Area (Square Feet) | 1,057,797 | Proposed area affected | Data |
| Average Completed Thickness (Feet) | 12.0 | Proposed thickness | Data |
| Affected Volume: |  |  |  |
| Factor For Vertical Flare | 20\% | Vertical flare estimate | Estimated |
| Factor For Horizontal Flare | 20\% | Horizontal flare estimate | Estimated |
| Total Volume (Cubic Feet) | 18,278,732 | = Area * Thickness * Vertical flare * Horizontal flare | Calculated |
| Porosity | 26.0\% | Typical value for host sand | Data |
| Gallons Per Cubic Foot | 7.48 | Conversion factor | Constant |
| Gallons Per Pore Volume | 35,548,478 | = Volume * Porosity * gal/ft ${ }^{\text {3 }}$ | Calculated |
| Number of Wells in Unit(s) |  |  |  |
| Production Wells | 120 | Proposed well count | Data |
| Injection Wells | 208 | Proposed well count | Data |
| Average Well Spacing (Feet) | 95 | Proposed well spacing | Data |
| Average Well Depth (Feet) | 425 | Proposed well depth | Data |

[^0]Table RP-4 Reclamation/Restoration Bond Estimate (Page 3 of 37)

| LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Assumptions/ltems | Mine Unit No. 1 | Explanation | Source |
| I GROUNDWATER SWEEP |  |  |  |
| A. PLANT \& OFFICE |  |  |  |
| Operating Assumptions: |  |  |  |
| Flow Rate (Gallons per Minute) | 120 | Planned flow | Data |
| Pore Volumes Required | 0.3 | Required value | Data |
| Total Gallons For Treatment | 10,664,543 | = Gallons per Pore Volume * Number of Pore Volumes | Calculated |
| Total Kilogallons for Treatment | 10,665 |  | Calculated |
| Cost Assumptions: |  |  |  |
| Power |  |  |  |
| Average Connected Horsepower | 20 | Proposed pump horsepower | Data |
| Kilowatt-hours per Horsepower | 0.746 |  | Conversion Factor |
| Cost per Kilowatt-hour | \$0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 120 | Planned rate | Data |
| Gallons per Hour | 7200 |  | Calculated |
| Cost per Hour | \$0.90 |  | Calculated |
| Cost per Gallon | \$0.00012 |  | Calculated |
| Cost per Kilogallon | \$0.124 |  | Calculated |
| Chemicals |  |  |  |
| Antiscalent (Cost per Kilogallon) | \$0.120 | Based on required dosage/estimated cost | Unit Rate |
| Repair \& Maintenance (Cost per Kilogallon) | \$0.035 | Estimate | Unit Rate |
| Analysis (Cost per Kilogallon) | \$0.745 | From Table RP-5 | Unit Rate |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 4 of 37)

| LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Assumptions/ltems | Mine Unit No. 1 | Explanation | Source |
| I GROUNDWATER SWEEP (continued) |  |  |  |
| A. PLANT \& OFFICE (continued) |  |  |  |
| Total Cost per Kilogallon | \$1.025 |  | Calculated |
| Total Treatment Cost | \$10,928 |  | Calculated |
| Utilities |  |  |  |
| Power (Cost per Month) | \$225 | Estimate | Unit Rate |
| Propane (Cost per Month) | \$225 | Estimate | Unit Rate |
| Time for Treatment |  |  |  |
| Minutes for Treatment | 88,871 | =Total Gallons for Treatment Divided by Flow Rate (gpm) | Calculated |
| Hours for Treatment | 1,481 |  | Calculated |
| Days for Treatment | 62 |  | Calculated |
| Average Days per Month | 30.4 |  | Calculated |
| Months for Treatment | 2.0 |  | Calculated |
| Utilities Cost | \$913 |  | Calculated |
| TOTAL PLANT \& OFFICE COST | \$11,841 |  |  |

[^1]Table RP-4 Reclamation/Restoration Bond Estimate (Page 5 of 37)

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
| :---: | :---: | :---: | :---: |
| I GROUNDWATER SWEEP (continued) |  |  |  |
| B. WELLFIELD |  |  |  |
| Cost Assumptions: |  |  |  |
| Power |  |  |  |
| Average Flow per Pump (Gallons per Minute) | 32 | Estimate from pumping | Data |
| Average Horsepower per Pump | 7.50 | Estimate from pumping | Data |
| Average Number of Pumps Required | 3.8 | Estimate from pumping | Data |
| Average Connected Horsepower | 33.1 | Pumps plus 5 horsepower for HH | Data |
| Kilowatt-hours per Horsepower | 0.746 |  | Conversion Factor |
| Cost per Kilowatt-hour | \$0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 120 | Planned flow | Data |
| Gallons per Hour | 7200 |  | Calculated |
| Cost per Hour | \$1.48 |  | Calculated |
| Cost per Gallon | \$0.0002 |  | Calculated |
| Cost per Kilogallon | 0.206 |  | Calculated |
| Repair \& Maintenance (Cost per Kilogallon) | \$0.115 | Estimate | Unit Rate |
| Total Cost per Kilogallon | \$0.321 |  | Calculated |
| TOTAL WELLFIELD COST | \$3,423 |  | Calculated |
| TOTAL GROUNDWATER SWEEP COST | \$15,264 |  | Calculated |

[^2]Table RP-4 Reclamation/Restoration Bond Estimate (Page 6 of 37)

## LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
| :---: | :---: | :---: | :---: |
| II REVERSE OSMOSIS |  |  |  |
| A. PLANT \& OFFICE |  |  |  |
| Operating Assumptions: |  |  |  |
| Flow Rate (Gallons per Minute) | 760 | Estimate from pumping | Data |
| Pore Volumes Required | 6.0 | Required value | Data |
| Total Gallons for Treatment | 213,290,870 | = Gallons per Pore Volume * Number of Pore Volumes | Calculated |
| Total Kilogallons for Treatment | 213,291 |  | Calculated |
| Feed to Reverse Osmosis Unit (Gallons per Minute) | 760 | Planned flow | Data |
| Permeate Flow (Gallons per Minute) | 570 | = Planned Flow * Average Reverse Osmosis Recovery | Calculated |
| Brine Flow (Gallons per Minute) | 190 | = Planned Flow - Permeate Flow | Calculated |
| Average Reverse Osmosis Recovery | 75.0\% | Reverse Osmosis Design | Data |
| Cost Assumptions: |  |  |  |
| Power |  |  |  |
| Average Connected Horsepower | 300.00 | Average value for each area | Data |
| Kilowatt-hours per Horsepower | 0.746 |  | Conversion Factor |
| Cost per Kilowatt-hour | \$0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 760 | Planned flow | Data |
| Gallons per Hour | 45600 |  | Calculated |
| Cost per Hour | \$13.43 |  | Calculated |
| Cost per Gallon | \$0.00029 |  | Calculated |
| Cost per Kilogallon | \$0.294 |  | Calculated |
| Chemicals |  |  |  |
| Sulfuric Acid (Cost per Kilogallon) | \$0.090 | Estimate | Unit Rate |
| Caustic Soda (Cost per Kilogallon) | \$0.023 | Estimate | Unit Rate |
| Reductant (Cost per Kilogallon) | \$0.113 | Estimate | Unit Rate |
| Antiscalent (Cost per Kilogallon) | \$0.124 | Based on required dosage/estimated cost | Unit Rate |
| Repair \& Maintenance (Cost per Kilogallon) | \$0.068 | Estimate | Unit Rate |
| Sampling \& Analysis (Cost per Kilogallon) | \$0.198 | From Table RP-5 | Unit Rate |

[^3]Table RP-4 Reclamation/Restoration Bond Estimate (Page 7 of 37)

| LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Assumptions/ltems | Mine Unit No. 1 | Explanation | Source |
| II REVERSE OSMOSIS (continued) |  |  |  |
| A. PLANT \& OFFICE (continued) |  |  |  |
| Total Cost per Kilogallon | \$0.910 |  | Calculated |
| Total Pumping Cost | \$194,183 |  | Calculated |
| Utilities |  |  |  |
| Power (Cost per Month) | \$560 | Estimate | Unit Rate |
| Propane (Cost per Month) | \$225 | Estimate | Unit Rate |
| Time for Treatment |  |  |  |
| Minutes for Treatment | 280,646 |  | Calculated |
| Hours for Treatment | 4,677 |  | Calculated |
| Days for Treatment | 195 |  | Calculated |
| Average Days per Month | 30.4 |  | Calculated |
| Months for Treatment | 6.4 |  | Calculated |
| Utilities Cost | \$5,024 |  | Calculated |
| TOTAL PLANT \& OFFICE COST | \$199,207 |  | Calculated |

[^4]Table RP-4 Reclamation/Restoration Bond Estimate (Page 8 of 37)

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
| :---: | :---: | :---: | :---: |
| II REVERSE OSMOSIS (continued) |  |  |  |
| B. WELLFIELD |  |  |  |
| Cost Assumptions: |  |  |  |
| Power |  |  |  |
| Average Flow per Pump (Gallons per Minute) | 32.00 | Average value for each area | Data |
| Average Horsepower per Pump | 7.50 | Average value for each area | Data |
| Average Number of Pumps Required | 23.8 | Average value for each area | Data |
| Average Connected Horsepower | 188.1 | Pump horsepower plus 10 horsepower | Calculated |
| Kilowatt-hours per Horsepower | 0.746 |  | Conversion Factor |
| Cost per Kilowatt-hour | \$0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 760 | Planned flow | Data |
| Gallons per Hour | 45,600 |  | Calculated |
| Cost per Hour | \$8.42 |  | Calculated |
| Cost per Gallon | \$0.0002 |  | Calculated |
| Cost per Kilogallon | \$0.185 |  | Calculated |
| Repair \& Maintenance (Cost per Kilogallon) | \$0.115 | Estimate | Unit Rate |
| Total Cost per Kilogallon | \$0.300 |  | Calculated |
| TOTAL WELLFIELD COST | \$63,915 |  | Calculated |
| TOTAL REVERSE OSMOSIS COST | \$263,121 |  | Calculated |

[^5]Table RP-4 Reclamation/Restoration Bond Estimate (Page 9 of 37)

| LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Assumptions/ltems | Mine Unit No. 1 | Explanation | Source |
| III RECIRCULATION |  |  |  |
| A. WELLFIELD |  |  |  |
| Cost Assumptions: |  |  |  |
| Power |  |  |  |
| Average Flow per Pump (Gallons per Minute) | 32 | Estimate from pumping | Data |
| Average Horsepower per Pump | 7.50 | Estimate from pumping | Data |
| Average Number of Pumps Required | 120.0 | Estimate from pumping | Data |
| Average Connected Horsepower | 905.0 | Pumps plus 5 horsepower for HH | Data |
| Kilowatt-hours per Horsepower | 0.746 |  | Conversion Factor |
| Cost per Kilowatt-hour | 0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 3840 | Planned flow | Data |
| Gallons per Hour | 230400 |  | Calculated |
| Cost per Hour | \$40.51 |  | Calculated |
| Cost per Gallon | \$0.0002 |  | Calculated |
| Cost per Kilogallon | 0.176 |  | Calculated |
| Repair \& Maintenance (Cost per Kilogallon) | \$0.115 | Estimate | Unit Rate |
| Analysis (Cost per Kilogallon) | \$0.131 | From Table RP-5 | Unit Rate |
| Total Cost per Kilogallon | \$0.421 |  | Calculated |
| TOTAL WELLFIELD RECIRCULATION COST | \$14,980 |  | Calculated |

[^6]Table RP-4 Reclamation/Restoration Bond Estimate (Page 10 of 37)

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
| :---: | :---: | :---: | :---: |
| IV WASTE DISPOSAL WELL |  |  |  |
| Operating Assumptions: |  |  |  |
| Annual Evaporation Capacity (Gallons) | 0 |  | Data |
| Average Monthly Evaporation Capacity (Gallons) | 0 |  | Calculated |
| Total Disposal Requirement |  |  |  |
| RO Brine and GWS (Total Gallons) | 63,987,261 | =Treatment Gallons * (1- Reverse Osmosis Recovery) + GWS | Calculated |
| RO Brine and GWS (Total Kilogallons) | 63,987 |  | Calculated |
| Brine Concentration Factor | 50\% | Reverse Osmosis Design | Data |
| Total Concentrated Brine (Gallons) | 31,993,630 | = Reverse Osmosis Brine Gallons * Brine Concentration Factor | Calculated |
| Months of RO and GWS Operation | 8.4 |  | Calculated |
| Average Monthly Requirement (Gallons) | 3,795,651 | =Total Concentrated Brine / Months of Reverse Osmosis Operation | Calculated |
| Monthly Balance for DDW (Gallons) | 3,795,651 | =Average Monthly Requirement - Average Monthly Evaporation | Calculated |
| Total WDW Disposal (Gallons) | 31,993,630 |  | Calculated |
| Total WDW Disposal (Kilogallons) | 31,994 |  | Calculated |
| Cost Assumptions: |  |  |  |
| Power |  |  |  |
| Average Connected Horsepower | 100.0 | Estimate | Data |
| WDW Average Connected Horsepower | 300.0 | Estimate | Data |
| Kilowatt-hours per Horsepower | 0.746 |  | Conversion Factor |
| Cost per Kilowatt-hour | \$0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 115.0 | Planned flow | Data |
| Gallons per Hour | 6900 |  | Calculated |
| Cost per Hour | \$17.90 |  | Calculated |
| Cost per Gallon | \$0.0026 |  | Calculated |
| Cost per Kilogallon | \$2.595 |  | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 11 of 37)

## LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
| :---: | :---: | :---: | :---: |
| IV WASTE DISPOSAL WELL (continued) |  |  |  |
| Chemicals |  |  |  |
| Reverse Osmosis Antiscalent (Cost per Kilogallon) | \$0.225 | Based on required dosage and cost | Unit Rate |
| WDW Antiscalent (Cost per Kilogallon) | \$0.254 | Based on required dosage and cost | Unit Rate |
| Sulfuric Acid (Cost per Kilogallon) | \$0.315 | Estimate | Unit Rate |
| Corrosion Inhibitor | \$0.244 | Estimate | Unit Rate |
| Repair \& Maintenance (Cost per Kilogallon) | \$0.130 | Estimate | Unit Rate |
| Total Cost per Kilogallon | \$3.762 |  | Calculated |
| TOTAL WASTE DISPOSAL WELL COST | \$120,369 |  | Calculated |
|  |  |  |  |
| V STABILIZATION MONITORING |  |  |  |
| Operating Assumptions: |  |  |  |
| Time of Stabilization (Months) | 9 | Time frame required | Data |
| Frequency of Analysis (Months) | 3 | Required sampling | Data |
| Total Sets of Analysis | 5 | Required sampling | Data |
| Cost Assumptions: |  |  |  |
| Power (Cost per Month) | \$1,125 | Estimate | Unit Rate |
| Total Power Cost | \$10,125 |  | Calculated |
| Sampling \& Analysis (Cost per Set) | \$8,178 | From Table RP-5 | Unit Rate |
| Total Sampling \& Analysis Cost | \$40,891 | From Table RP-5 | Calculated |
| Utilities (Cost per Month) | \$2,250 | Estimate | Unit Rate |
| Total Utilities Cost | \$20,250 |  | Calculated |
| TOTAL STABILIZATION COST | \$71,266 |  | Calculated |

[^7]Table RP-4 Reclamation/Restoration Bond Estimate (Page 12 of 37)

## LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1



Table RP-4 Reclamation/Restoration Bond Estimate (Page 13 of 37)

| LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Assumptions/ltems | Mine Unit No. 1 | Explanation | Source |
| SUMMARY: |  |  |  |
| I GROUNDWATER SWEEP | \$15,264 |  |  |
| II REVERSE OSMOSIS | \$263,121 |  |  |
| III RECIRCULATION | \$14,980 |  |  |
| IV WASTE DISPOSAL WELL | \$120,369 |  |  |
| $\checkmark$ STABILIZATION | \$71,266 |  |  |
| VI LABOR | \$2,483,520 |  |  |
| VII CAPITAL | \$306,270 |  |  |
| TOTAL GROUNDWATER RESTORATION COST | \$3,274,790 |  |  |


| Assumptions/ltems | Shop / Lab / Office | Precipitation Section | Chemical Section | Ion Exchange Section | Restoration Section | Total | Explanation | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Volume (Cubic Yards) | 68 | 46 | 17 | 111 | 96 | 338 | Estimate of equipment to be removed | Data |
| Volume per Truck Load (Cubic Yards) | 20 | 20 | 20 | 20 | 20 |  | Typical load for shipping | Data |
| Number of Truck Loads | 3.4 | 2.3 | 0.8 | 5.6 | 4.8 | 16.9 |  | Calculated |
| I DECONTAMINATION |  |  |  |  |  |  |  |  |
| Decontamination Cost per Truck Load | \$620 | \$620 | \$620 | \$620 | \$620 |  | Estimated average decontaminate | Unit Rate |
| Percent Requiring Decontamination | 50.0\% | 100.0\% | 0.0\% | 100.0\% | 100.0\% |  | Percent expected | Data |
| TOTAL DECONTAMINATION COST | \$1,060 | \$1,428 | \$0 | \$3,443 | \$2,963 | \$8,894 |  | Calculated |
| II DISMANTLING \& LOADING |  |  |  |  |  |  |  |  |
| Cost per Truck Load | \$805 | \$805 | \$805 | \$805 | \$805 |  | Estimated average dismantle cost | Unit Rate |
| TOTAL DISMANTLING \& LOADING COST | \$2,753 | \$1,854 | \$676 | \$4,470 | \$3,847 | \$13,600 |  | Calculated |
| III OVERSIZE |  |  |  |  |  |  |  |  |
| Percent Requiring Permits | 0.0\% | 10.0\% | 10.0\% | 10.0\% | 10.0\% |  |  | Data |
| Cost per Truck Load | \$367 | \$367 | \$367 | \$367 | \$367 |  |  | Unit Rate |
| TOTAL OVERSIZE COST | \$0 | \$85 | \$31 | \$204 | \$175 | \$495 |  | Calculated |
| IV TRANSPORTATION \& DISPOSAL |  |  |  |  |  |  |  |  |
| A. Landfill |  |  |  |  |  |  |  |  |
| Percent to be Shipped | 90.0\% | 50.0\% | 100.0\% | 50.0\% | 50.0\% |  | Percent acceptable at landfill | Data |
| Distance (Miles) | 48 | 48 | 48 | 48 | 48 |  | Distance to landfill | Data |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 | \$2.90 | \$2.90 |  | Current transport rate | Unit Rate |
| Transportation Cost | \$429 | \$160 | \$117 | \$386 | \$333 |  |  | Calculated |
| Disposal Fee per Cubic Yard | \$13.50 | \$13.50 | \$13.50 | \$13.50 | \$13.50 |  | Landfill fee | Unit Rate |
| Disposal Cost | \$831 | \$311 | \$227 | \$750 | \$645 |  |  | Calculated |
| Total Cost | \$1,260 | \$471 | \$344 | \$1,136 | \$978 |  |  | Calculated |
| B. Licensed Site |  |  |  |  |  |  |  |  |
| Percent to be Shipped | 10.0\% | 50.0\% | 0.0\% | 50.0\% | 50.0\% |  | Percent requiring disposal at licensed site | Calculated |
| Distance (Miles) | 105 | 105 | 105 | 105 | 105 |  | Distance to Shirley Basin | Data |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 | \$2.90 | \$2.90 |  | Current transport rate | Unit Rate |
| Transportation Cost | \$104 | \$351 | \$0 | \$845 | \$728 |  |  | Calculated |
| Disposal Cost per Cubic Foot | \$12.38 | \$12.38 | \$12.38 | \$12.38 | \$12.38 |  | Licensed site fee | Unit Rate |
| Volume per Truck Load (Cubic Yards) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |  | Typical load for shipping | Data |
| Volume per Truck Load (Cubic Feet) | 540 | 540 | 540 | 540 | 540 |  |  | Calculated |
| Disposal Cost | \$2,287 | \$7,697 | \$0 | \$18,562 | \$15,975 |  |  | Calculated |
| Total Cost Licensed Site | \$2,391 | \$8,047 | \$0 | \$19,407 | \$16,702 |  |  | Calculated |
| TOTAL TRANSPORTATION \& DISPOSAL COST | \$3,650 | \$8,518 | \$344 | \$20,544 | \$17,680 | \$50,736 |  | Calculated |
| TOTAL PLANT EQUIPMENT REMOVAL AND DISPOSAL COST\| |  |  | $\$ 1,050$ | \$28,661 | $\$ 24,666$ | $\$ 73,724$ |  |  |
|  | $\$ 7,464$ | \$11,884 |  |  |  |  |  | Calculated |

[^8]

| Assumptions/ltems | Plant | Header Houses | Drill Shed | Total | Explanation | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| II CONCRETE DECONTAMINATION, DEMOLITION \& DISPOSAL |  |  |  |  |  |  |
| Area (Square Feet) | 30,050 | 283 | 565 |  | Building concrete area | Data |
| Average Thickness (Feet) | 1 | 1.0 | 0.3 |  |  | Data |
| Volume (Cubic Feet) | 30,050 | 283 | 141 |  |  | Calculation |
| Percent Requiring Decontamination | 75.0\% | 50.0\% | 0.0\% |  |  | Data |
| Percent Decontaminated | 75.0\% | 75.0\% | 0.0\% |  |  | Data |
| Decontamination (Cost per Square Foot) | \$0.191 | \$0.191 | \$0.191 |  |  | Unit Rate |
| Decontamination Cost | \$4,305 | \$41 | \$0 | \$4,345 |  | Calculation |
| Demolition (Cost per Square Foot) | \$2.124 | \$2.124 | \$0.100 |  |  | Unit Rate |
| Demolition Cost | \$63,826 | \$601 | \$57 | \$64,484 |  | Calculation |
| Transportation \& Disposal |  |  |  |  |  |  |
| A. Landfill Disposal |  |  |  |  |  |  |
| Percent to be Disposed at Landfill | 90\% | 90\% | 100\% |  |  | Data |
| Concrete Weight (Pounds per Cubic Foot) | 150 | 150 | 150 |  |  | Data |
| Concrete Weight (Pounds) | 4,056,750 | 38,205 | 21,188 |  |  |  |
| Weight per Truck Load (Pounds) | 40,000 | 40,000 | 40,000 |  |  |  |
| Number of Truck Loads | 101.4 | 1.0 | 0.5 |  |  |  |
| Distance to Landfill (Miles) | 48 | 48 | 48 |  |  |  |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 |  | Current transport rate |  |
| Transportation Cost | \$14,117 | \$133 | \$74 | \$14,324 |  | Data |
| Disposal Cost per Ton | \$40.20 | \$40.20 | \$40.20 |  |  | Unit Rate |
| Disposal Cost | \$81,541 | \$10,239 | \$5,678 | \$97,458 |  | Calculation |
| B. Licensed Site |  |  |  |  |  |  |
| Percent to be Shipped | 10\% | 10\% | 0\% |  |  | Calculation |
| Distance (Miles) | 105 | 105 | 105 |  |  | Data |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 |  | Current transport rate | Unit Rate |
| Transportation Cost | \$1,694 | \$16 | \$0 | \$1,710 |  | Calculation |
| Disposal Cost per Cubic Foot | \$4.16 | \$4.16 | \$4.16 |  |  | Unit Rate |
| Volume per Truck Load (Cubic Yards) | 20 | 20 | 20 |  |  | Data |
| Volume per Truck Load (Cubic Feet) | 540 | 540 | 540 |  |  | Calculation |
| Disposal Cost | \$12,501 | \$118 | \$0 | \$12,619 |  | Calculation |
| TOTAL CONCRETE DECONTAMINATION, DEMOLITION \& DISPOSAL COST | \$177,984 | \$11,147 | \$5,808 | \$194,940 |  | Calculation |

[^9]| Assumptions/ltems | Plant | Header Houses | Drill Shed | Total | Explanation | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| III SOIL REMOVAL \& DISPOSAL |  |  |  |  |  |  |
| Front End Loader Cost per Hour | \$50 | \$50 | \$50 | \$50 |  |  |
| Time with Front End Loader (Hours) | 16 | 6 | 1 | 23 |  |  |
| Cost of Front End Loader | \$800 | \$300 | \$50 | \$1,150 | Assume removal of 3" of Contaminated | Data |
| Volume to be Shipped (Cubic Feet) | 2504 | 71 | 0 |  | Soil Under Headers, 1" under Plant, | Data |
| Distance (Miles) | 105 | 105 | 105 |  | Disposal at a Licensed Facility | Data |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 |  |  | Unit Rate |
| Transportation Cost | \$1,412 | \$40 | \$0 | \$1,452 |  | Calculation |
| Disposal Fee per Cubic Foot | \$4.16 | \$4.16 | \$4.16 |  |  | Unit Rate |
| Quantity per Truck Load (Cubic Feet) | 540 | 540 | 540 |  |  | Data |
| Disposal Cost | \$10,417 | \$294 | \$0 | \$10,712 |  | Calculation |
| TOTAL SOIL REMOVAL \& DISPOSAL COST | \$12,629 | \$634 | \$50 | \$13,314 |  | Calculation |
| IV RADIATION SURVEY |  |  |  |  |  |  |
| Area Required (Acres) | 0.69 | 0.01 | 0.01 |  |  | Data |
| Survey Cost per Acre | \$653.00 | \$653.00 | \$653.00 |  |  | Unit Rate |
| TOTAL RADIATION SURVEY COST | \$450 | \$4 | \$8 | \$462 |  | Calculation |
| TOTAL PLANT BUILDING DEMOLITION AND DISPOSAL COST | \$570,103 | \$19,515 | \$12,380 | \$601,999 |  | Calculation |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 18 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: C. Storage Pond Sludge and Liner Handling - WORKSHEET 4

| Assumptionslltems | Pond 1 <br> Storage | Pond 2 <br> Storage | Total | Explanation | Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I POND SLUDGE |  |  |  |  |  |
| Average Sludge Depth (Feet) | 0.125 | 0.125 |  |  | Data |
| Average Sludge Area (Square Feet) | 40,300 | 40,300 |  |  | Data |
| Sludge Volume (Cubic Feet) | 5,038 | 5,038 |  |  | Calculated |
| Sludge Volume (Cubic Yards) | 187 | 187 |  |  | Calculated |
| Sludge Volume per Truck Load (Cubic Yards) | 20.0 | 20.0 |  |  | Data |
| Number of Sludge Truck Loads | 9.4 | 9.4 |  |  | Calculated |
| Sludge Handling Cost Per Load | \$268.00 | \$268.00 |  |  | Unit Rate |
| Total Sludge Handling Cost | \$2,519 | \$2,519 | \$5,038 |  | Calculated |
| Transportation \& Disposal |  |  |  |  |  |
| Percent to be Shipped | 100.0\% | 100.0\% |  |  | Data |
| Distance (Miles) | 105 | 105 |  |  | Data |
| Cost per Mile | \$2.90 | \$2.90 |  |  | Unit Rate |
| Transportation Cost | \$2,862 | \$2,862 |  |  | Calculated |
| Disposal Cost per Cubic Foot | \$12.38 | \$12.38 |  |  | Unit Rate |
| Volume per Truck Load (Cubic Yards) | 20.0 | 20.0 |  |  | Data |
| Volume per Truck Load (Cubic Feet) | 540 | 540 |  |  | Calculated |
| Disposal Cost | \$62,841 | \$62,841 |  |  | Calculated |
| Total Transportation \& Disposal Cost | \$65,703 | \$65,703 | \$131,406 |  | Calculated |
| TOTAL POND SLUDGE COST | \$68,222 | \$68,222 | \$136,444 |  | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 19 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: C. Storage Pond Sludge and Liner Handling - WORKSHEET 4

| Assumptions/ltems | Pond 1 <br> Storage | Pond 2 <br> Storage | Total | Explanation | Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| II POND LINER |  |  |  |  |  |
| Total Pond Area (Acres) | 0.93 | 0.93 |  |  | Data |
| Total Pond Area (Square Feet) | 40,300 | 40,300 |  |  | Calculated |
| Factor For Sloping Sides | 20.0\% | 20.0\% |  |  | Data |
| Total Liner Area (Square Feet) | 48360 | 48360 |  |  | Calculated |
| Liner Thickness (Mils) | 30 | 30 |  |  | Data |
| Liner Thickness (Inches) | 0.0300 | 0.0300 |  |  | Calculated |
| Liner Thickness (Feet) | 0.0025 | 0.0025 |  |  | Calculated |
| "Swell" Factor | 25.0\% | 25.0\% |  |  | Data |
| Liner Volume (Cubic Feet) | 151 | 151 |  |  | Calculated |
| Truck Loads of Liner | 0.3 | 0.3 |  |  | Calculated |
| Liner Handling Cost |  |  |  |  |  |
| Labor Crew Cost per Hour | \$135 | \$135 |  |  | Unit Rate |
| Hours per Load | 2.0 | 2.0 |  |  | Unit Rate |
| Liner Handling Cost per Load | \$270.00 | \$270.00 |  |  | Calculated |
| Total Liner Handling Cost | \$81 | \$81 | \$162 |  | Calculated |
| Transportation \& Disposal |  |  |  |  |  |
| Percent to be Shipped | 100.0\% | 100.0\% |  |  | Data |
| Distance (Miles) | 105 | 105 |  |  | Data |
| Cost per Mile | \$2.90 | \$2.90 |  |  | Unit Rate |
| Transportation Cost | \$91 | \$91 |  |  | Calculated |
| Disposal Cost per Cubic Foot | \$12.38 | \$12.38 |  |  | Unit Rate |
| Volume per Truck Load (Cubic Feet) | 540 | 540 |  |  | Data |
| Disposal Cost | \$2,006 | \$2,006 |  |  | Calculated |
| Total Transportation \& Disposal | \$2,097 | \$2,097 | \$4,194 |  | Calculated |
| TOTAL POND LINER COST | \$2,178 | \$2,178 | \$4,356 |  | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 20 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: C. Storage Pond Sludge and Liner Handling - WORKSHEET 4

| Assumptions/ltems | Pond 1 <br> Storage | Pond 2 <br> Storage | Total | Explanation | Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| III POND BACKFILL |  |  |  |  |  |
| Backfill Required (Cubic Yards) | 10,448 | 10,448 |  |  | Data |
| Backfill Cost per Cubic Yard | \$1.13 | \$1.13 |  |  | Unit Rate |
| TOTAL POND BACKFILL COST | \$11,806 | \$11,806 | \$23,612 |  | Calculated |
| IV RADIATION SURVEY |  |  |  |  |  |
| Areal required (Acres) | 1.02 | 1.02 |  |  | Data |
| Survey Cost per Acre | \$653.00 | \$653.00 |  |  | Unit Rate |
| TOTAL RADIATION SURVEY COST | \$665 | \$665 | \$1,330 |  | Calculated |
| V LEAK DETECTION SYSTEM REMOVAL |  |  |  |  |  |
| Gravel and Piping Volume (Cubic Feet) | 10075 | 10075 |  | Assume 3 inches | Data |
| Volume per Truck Load (Cubic Feet) | 540 | 540 |  |  | Data |
| Loads to be Shipped | 18.7 | 18.7 |  |  | Calculated |
| Distance (Miles) | 105 | 105 |  |  | Data |
| Cost per Mile | \$2.90 | \$2.90 |  |  | Unit Rate |
| Transportation Cost | \$5,681 | \$5,681 |  |  | Calculated |
| Handling Cost | \$5,038 | \$5,038 |  |  | Unit Rate (Imbedded) |
| Disposal Fee per Cubic Foot | \$4.16 | \$4.16 |  |  | Unit Rate |
| Disposal Cost | \$41,912 | \$41,912 |  |  | Calculated |
| TOTAL LEAK DETECTION SYSTEM REMOVAL COST | \$52,631 | \$52,631 | \$105,261 |  | Calculated |
| TOTAL POND RECLAMATION COST | \$135,502 | \$135,502 | \$271,003 |  | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 21 of 37)

## LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: D. Well Abandonment - WORKSHEET 5

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
| :---: | :---: | :---: | :---: |
| Number of Wells | 328 |  | Data |
| Average Depth (Feet) | 425 |  | Data |
| Average Diameter (Inches) | 4.328 |  | Data |


| 1 MATERIALS |  |  |  |
| :---: | :---: | :---: | :---: |
| Class G Neat Cement Required (Cubic Feet per Well) | 43.4 |  | Data |
| Cement Sacks Required per Well | 33.9 | 15 ppg Class G cement requires 6 gallons water per sack cement and 1-1/2\% bentonite by weight | Data |
| Cement Sack Cost | \$14.43 |  | Unit Rate |
| Cement Cost per Well | \$489.49 |  | Calculated |
| Bentonite Sacks Required per Well | 1.0 |  | Data |
| Bentonite Bag Cost | \$2.90 |  | Unit Rate |
| Bentonite Cost per Well | \$2.77 |  | Calculated |
| TOTAL MATERIALS COST PER WELL | \$492.27 |  | Calculated |
| II LABOR (INCLUDED IN WORKSHEET 1) |  |  |  |
| Hours Required per Well | 0.0 |  | Data |
| Labor Cost per Hour | \$0.00 |  | Unit Rate |
| TOTAL LABOR COST PER WELL | \$0.00 |  | Calculated |
| III EQUIPMENT RENTAL |  |  |  |
| Hours Required per Well | 1.0 |  | Data |
| Backhoe with Operator Cost per Hour | \$48.00 |  | Unit Rate |
| Cementer Cost per Hour | \$25.00 |  | Unit Rate |
| Total Equipment Cost per Well | \$73.00 |  | Calculated |
| TOTAL ABANDONMENT COST PER WELL | \$565.27 |  | Calculated |
|  |  |  |  |
| TOTAL WELL ABANDONMENT COST | \$185,408 |  | Calculated |

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Table RP-4 Reclamation/Restoration Bond Estimate (Page 22 of 37)

## LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

| Assumptions/Items | MU-1 | Source |
| :---: | :---: | :---: |
| I WELLFIELD PIPING |  |  |
| A. Removal |  |  |
| Surface Length per Well (Feet) | 250 |  |
| Downhole Length per Well (Feet) | 350 |  |
| Total Number of Wells | 328 |  |
| Total Length (Feet) | 196,800 | Calculated |
| Cost of Removal per Foot | \$0.109 | Unit Rate |
| Cost of Removal | \$21,353 | Calculated |
| Chipping Rate (feet per hour) | 1500 | Estimate |
| Chipper Cost per Hour | \$30 | Unit Rate |
| Chipping Cost | \$3,936 | Calculated |
| Average OD (Inches) | 1.6 |  |
| Chipped Volume Reduction (Cubic Feet per Foot) | 0.008 | Unit Rate |
| Chipped Volume (Cubic Feet) | 1,574 | Calculated |
| Volume per Truck Load (Cubic Feet) | 540 |  |
| Total Number of Truck Loads | 2.9 | Calculated |
| B. Survey \& Decontamination |  |  |
| Percent Requiring Decontamination | 0\% |  |
| Number of Decontamination Loads | 0.0 | Calculated |
| Decontamination Cost per Load | \$620.00 | Unit Rate |
| Decontamination Cost | \$0 | Calculated |
| C. Transport \& Disposal |  |  |
| Landfill Transportation |  |  |
| Percent to be Shipped | 0.0\% |  |
| Loads to be Shipped | 0.0 | Calculated |
| Distance (Miles) | 48 |  |
| Transportation Cost per Mile | \$2.90 | Unit Rate |
| Transportation Cost | \$0 | Calculated |
| Landfill Disposal |  |  |
| Disposal Fee per Cubic Yard | \$13.50 | Unit Rate |
| Load Volume (Cubic Yards) | 20 |  |
| Disposal Cost | \$0 | Calculated |
| Total Landfill Cost | \$0 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 23 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

| Assumptions/Items | MU-1 | Source |
| :---: | :---: | :---: |
| I WELLFIELD PIPING (continued) |  |  |
| C. Transport \& Disposal (continued) |  |  |
| Licensed Site |  |  |
| Transportation |  |  |
| Percent to be Shipped | 100.0\% | Calculated |
| Loads to be Shipped | 2.9 | Calculated |
| Distance (Miles) | 105 |  |
| Transportation Cost per Mile | \$2.90 | Unit Rate |
| Transportation Cost | \$883 | Calculated |
| Disposal |  |  |
| Disposal Fee per Cubic Foot | \$12.38 | Unit Rate |
| Disposal Fee per Cubic Yard | \$334.26 | Calculated |
| Load Volume (Cubic Yards) | 20 |  |
| Disposal Cost | \$19,387 | Calculated |
| Total Licensed Site Cost | \$20,270 | Calculated |
| Total Transport \& Disposal Cost | \$20,270 | Calculated |
| TOTAL WELLFIELD PIPING REMOVAL \& DISPOSAL COST | \$45,559 | Calculated |
| II PRODUCTION WELL PUMPS |  |  |
| A. Pump and Tubing Removal |  |  |
| Number of Production Wells | 120 |  |
| Removal Cost per Well | \$12.07 | Unit Rate |
| Removal Cost | \$1,448 | Calculated |
| Number of Pumps per Truck Load | 180 |  |
| Number of Truck Loads (Pumps) | 0.7 | Calculated |
| B. Survey \& Decontamination (Pumps) |  |  |
| Percent Requiring Decontamination | 0.0\% |  |
| Number of Decontamination Truck Loads | 0.0 | Calculated |
| Decontamination Cost per Load | \$0.00 | Unit Rate |
| Decontamination Cost | \$0 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 24 of 37)

## LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

| Assumptions/Items | MU-1 | Source |
| :---: | :---: | :---: |
| II PRODUCTION WELL PUMPS (continued) |  |  |
| C. Tubing Volume Reduction \& Loading |  |  |
| Length per Well (Feet) | 375 |  |
| Total Length (Feet) | 45,000 | Calculated |
| Removal Cost per Foot | \$0.014 | Unit Rate |
| Removal Cost | \$608 | Calculated |
| Average OD (Inches) | 2.0 |  |
| Chipped Volume Reduction (Cubic Feet per Foot) | 0.012 |  |
| Chipped Volume (Cubic Feet) | 540 | Calculated |
| Volume per Truck Load (Cubic Feet) | 540 |  |
| Number of Truck Loads | 1.0 | Calculated |
| D. Transport \& Disposal |  |  |
| Landfill |  |  |
| Transportation |  |  |
| Percent to be Shipped (Pumps) | 100.0\% |  |
| Loads to be Shipped | 0.7 | Calculated |
| Distance (Miles) | 48 |  |
| Cost per Mile | \$2.90 | Unit Rate |
| Transportation Cost | \$97 | Calculated |
| Disposal |  |  |
| Disposal Fee per Cubic Yard | \$13.50 | Unit Rate |
| Load Volume (Cubic Yards) | 20 |  |
| Disposal Cost | \$189 | Calculated |
| Total Landfill Cost | \$286 | Calculated |
| Licensed Site |  |  |
| Transportation |  |  |
| Percent to be Shipped (Pumps) | 0.0\% |  |
| Percent to be Shipped (Tubing) | 100.0\% |  |
| Loads to be Shipped | 1.0 | Calculated |
| Distance (Miles) | 105 |  |
| Cost per Mile | \$2.90 | Unit Rate |
| Transportation Cost | \$305 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 25 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

| Assumptions/ltems | MU-1 | Source |
| :---: | :---: | :---: |
| II PRODUCTION WELL PUMPS (continued) |  |  |
| D. Transport \& Disposal (continued) |  |  |
| Licensed Site (continued) |  |  |
| Disposal |  |  |
| Disposal Cost per Cubic Foot | \$12.38 | Unit Rate |
| Disposal Fee per Cubic Yard | \$334.26 | Calculated |
| Load Volume (Cubic Yards) | 20 |  |
| Disposal Cost | \$6,685 | Calculated |
| Total Licensed Site Cost | \$6,990 | Calculated |
| Total Transport \& Disposal Cost | \$7,276 | Calculated |
| TOTAL PRODUCTION WELL PUMP REMOVAL \& DISPOSAL COST | \$9,331 | Calculated |
| III SURFACE TRUNKLINE PIPING |  |  |
| A. Removal |  |  |
| Total Length (Feet) | 0 |  |
| Removal Cost per Foot | \$0.081 | Unit Rate |
| Removal Cost | \$0 | Calculated |
| Average OD (Inches) | 8.750 |  |
| Chipped Volume Reduction (Cubic Feet per Foot) | 0.088 | Unit Rate |
| Chipped Volume (Cubic Feet) |  | Calculated |
| Volume per Truck Load (Cubic Feet) | 540 |  |
| Total Number of Truck Loads | 0.0 | Calculated |
| B. Survey \& Decontamination |  |  |
| Percent Requiring Decontamination | 0.0\% |  |
| Number of Decontamination Truck Loads | 0.0 | Calculated |
| Decontamination Cost per Load | \$0.00 | Unit Rate |
| Decontamination Cost | \$0 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 26 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

| Assumptions/Items | MU-1 | Source |
| :---: | :---: | :---: |
| III SURFACE TRUNKLINE PIPING (continued) |  |  |
| C. Transport \& Disposal |  |  |
| Landfill |  |  |
| Transportation |  |  |
| Percent to be Shipped | 0.0\% |  |
| Loads to be Shipped | 0.0 | Calculated |
| Distance (Miles) | 48 |  |
| Cost per Mile | \$2.90 | Unit Rate |
| Transportation Cost | \$0 | Calculated |
| Disposal |  |  |
| Disposal Fee per Cubic Yard | \$13.50 | Unit Rate |
| Load Volume (Cubic Yards) | 20 |  |
| Disposal Cost | \$0 | Calculated |
| Total Landfill Cost | \$0 | Calculated |
| Licensed Site |  |  |
| Transportation |  |  |
| Percent to be Shipped | 100.0\% | Calculated |
| Loads to be Shipped | 0.0 | Calculated |
| Distance (Miles) | 105 |  |
| Cost per Mile | \$2.90 | Unit Rate |
| Transportation Cost | \$0 | Calculated |
| Disposal |  |  |
| Disposal Cost per Cubic Foot | \$12.38 | Unit Rate |
| Disposal Fee per Cubic Yard | \$334.26 | Calculated |
| Load Volume (Cubic Yards) | 20 |  |
| Disposal Cost | \$0 | Calculated |
| Total Licensed Site Cost | \$0 | Calculated |
| Total Transport \& Disposal Cost | \$0 | Calculated |
| TOTAL SURFACE TRUNKLINE PIPING REMOVAL \& DISPOSAL COST | \$0 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 27 of 37)

## LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

| Assumptions/Items | MU-1 | Source |
| :---: | :---: | :---: |
| IV BURIED TRUNKLINE |  |  |
| A. Removal |  |  |
| Total Length (Feet) | 24,304 |  |
| Removal Cost per Buried Foot | \$1.58 | Unit Rate |
| Removal Cost | \$19,139 | Calculated |
| Chipping Rate (feet per hour) | 150 | Estimate |
| Chipper Cost per Hour | \$30 | Unit Rate |
| Chipping Cost | \$4,861 | Calculated |
| Average OD (Inches) | 9.635 |  |
| Chipped Volume Reduction (Cubic Feet per Foot) | 0.309 | Unit Rate |
| Chipped Volume (Cubic Feet) | 7,510 | Calculated |
| Volume per Truck Load (Cubic Feet) | 540 |  |
| Number of Truck Loads | 13.9 | Calculated |
| B. Survey \& Decontamination |  |  |
| Percent Requiring Decontamination | 0.0\% |  |
| Number of Decontamination Truck Loads | 0.0 | Calculated |
| Decontamination Cost per Load | \$0.00 | Unit Rate |
| Decontamination Cost | \$0 | Calculated |
| C. Transport \& Disposal |  |  |
| Landfill |  |  |
| Transportation |  |  |
| Percent to be Shipped | 0.0\% |  |
| Loads to be Shipped | 0.0 | Calculated |
| Distance (Miles) | 48 |  |
| Cost per Mile | \$2.90 | Unit Rate |
| Transportation Cost | \$0 | Calculated |
| Disposal |  |  |
| Disposal Fee per Cubic Yard | \$13.50 | Unit Rate |
| Load Volume (Cubic Yards) | 20 |  |
| Disposal Cost | \$0 | Calculated |
| Total Landfill Cost | \$0 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 28 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

| Assumptions/Items | MU-1 | Source |
| :---: | :---: | :---: |
| IV BURIED TRUNKLINE (continued) |  |  |
| C. Transport \& Disposal (continued) |  |  |
| Licensed Site |  |  |
| Transportation |  |  |
| Percent to be Shipped | 100.0\% | Calculated |
| Loads to be Shipped | 13.9 | Calculated |
| Distance (Miles) | 105 |  |
| Cost per Mile | \$2.90 | Unit Rate |
| Transportation Cost | \$4,233 | Calculated |
| Disposal |  |  |
| Disposal Cost per Cubic Foot | \$12.38 | Unit Rate |
| Disposal Fee per Cubic Yard | \$334.26 | Calculated |
| Load Volume (Cubic Yards) | 20 |  |
| Disposal Cost | \$92,924 | Calculated |
| Total Licensed Site Cost | \$97,157 | Calculated |
| Total Transport \& Disposal Cost | \$97,157 | Calculated |
| TOTAL BURIED TRUNKLINE REMOVAL \& DISPOSAL COST | \$121,157 | Calculated |
| V MANHOLES |  |  |
| A. Removal |  |  |
| Total Quantity | 9 |  |
| Removal Cost per Manhole | \$73.16 | Unit Rate |
| Removal Cost | \$658 | Calculated |
| Quantity per Truck Load | 10 |  |
| Number of Truck Loads | 0.9 | Calculated |
| B. Survey \& Decontamination |  |  |
| Percent Requiring Decontamination | 0.0\% |  |
| Number of Decontamination Truck Loads | 0.0 | Calculated |
| Decontamination Cost per Load | \$0.00 | Unit Rate |
| Decontamination Cost | \$0 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 29 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

| Assumptions/Items | MU-1 | Source |
| :---: | :---: | :---: |
| V MANHOLES (continued) |  |  |
| C. Transport \& Disposal |  |  |
| Landfill |  |  |
| Transportation |  |  |
| Percent to be Shipped | 0.0\% |  |
| Loads to be Shipped | 0.0 | Calculated |
| Distance (Miles) | 48 | Unit Rate |
| Cost per Mile | \$2.90 | Calculated |
| Transportation Cost | \$0 |  |
| Disposal |  |  |
| Disposal Fee per Cubic Yard | \$13.50 | Unit Rate |
| Load Volume (Cubic Yards) | 20 |  |
| Disposal Cost | \$0 | Calculated |
| Total Landfill Cost | \$0 | Calculated |
| Licensed Site |  |  |
| Transportation |  |  |
| Percent to be Shipped | 100.0\% | Calculated |
| Loads to be Shipped | 0.9 | Calculated |
| Distance (Miles) | 105 |  |
| Cost per Mile | \$2.90 | Unit Rate |
| Transportation Cost | \$274 | Calculated |
| Disposal |  |  |
| Disposal Cost per Cubic Foot | \$12.38 | Unit Rate |
| Disposal Fee per Cubic Yard | \$334.26 | Calculated |
| Load Volume (Cubic Yards) | 20 |  |
| Disposal Cost | \$6,017 | Calculated |
| Total Licensed Site Cost | \$6,291 | Calculated |
| Total Transport \& Disposal Cost | \$6,291 | Calculated |
| TOTAL MANHOLE REMOVAL \& DISPOSAL COST | \$6,949 | Calculated |


| TOTAL WELLFIELD EQUIPMENT REMOVAL AND DISPOSAL COST | $\$ 182,997$ | Calculated |
| :--- | :--- | :--- |

[^10]Table RP-4 Reclamation/Restoration Bond Estimate (Page 30 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| Assumptionslltems | Mine Unit No. $1$ | Source |
| :---: | :---: | :---: |
| 1 PLANT |  |  |
| A. Topsoil Handling \& Grading |  |  |
| Affected Area (Acres) | 5.0 |  |
| Average Affected Thickness (Inches) | 16.0 |  |
| Topsoil Volume (Cubic Yards) | 10,756 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$12,154 | Calculated |
| Grading Cost per Acre | \$56.28 | Unit Cost |
| Grading Cost | \$281 | Calculated |
| Total Topsoil Handling \& Grading Cost | \$12,435 | Calculated |
| B. Radiation Survey \& Soil Analysis |  |  |
| Survey \& Analysis Cost per Acre | \$653.00 | Unit Cost |
| Total Survey \& Analysis Cost | \$3,265 | Calculated |
| C. Revegetation |  |  |
| Fertilizer Cost per Acre | \$52.33 | Unit Cost |
| Seeding Preparation \& Seeding Cost per Acre | \$189.85 | Unit Cost |
| Mulching \& Crimping Cost per Acre | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | Calculated |
| Total Revegetation Cost | \$2,767 | Calculated |
| TOTAL PLANT COST | \$18,467 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 31 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| Assumptionslltems | Mine Unit No. $1$ | Source |
| :---: | :---: | :---: |
| II PONDS |  |  |
| A. Topsoil Handling \& Grading |  |  |
| Affected Area (Acres) | 5.0 |  |
| Average Affected Thickness (Inches) | 20 |  |
| Topsoil Volume (Cubic Yards) | 13,444 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$15,192 | Calculated |
| Grading Cost per Acre | \$56.28 | Unit Cost |
| Grading Cost | \$281 | Calculated |
| Total Topsoil Handling \& Grading Cost | \$15,474 | Calculated |
| B. Radiation Survey \& Soil Analysis |  |  |
| Survey \& Analysis Cost per Acre | \$653.00 | Unit Cost |
| Total Survey \& Analysis Cost | \$3,265 | Calculated |
| C. Revegetation |  |  |
| Fertilizer Cost per Acre | \$52.33 | Unit Cost |
| Seeding Preparation \& Seeding Cost per Acre | \$189.85 | Unit Cost |
| Mulching \& Crimping Cost per Acre | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | Calculated |
| Total Revegetation Cost | \$2,767 | Calculated |
| TOTAL POND COST | \$21,506 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 32 of 37)

## LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| Assumptions/ltems | Mine Unit No. 1 | Source |
| :---: | :---: | :---: |
| III WELLFIELDS |  |  |
| A. Topsoil Handling \& Grading |  |  |
| Affected Area (Acres) | 12.1 | 50\% of Ptn Area |
| Average Affected Thickness (Inches) | 0.0 |  |
| Topsoil Volume (Cubic Yards) | 0 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$0 | Calculated |
| Grading Cost per Acre | \$56.28 | Unit Cost |
| Grading Cost | \$681 | Calculated |
| Total Topsoil Handling \& Grading Cost | \$681 | Calculated |
| B. Radiation Survey \& Soil Analysis |  |  |
| Survey \& Analysis Cost per Acre | \$653.00 | Unit Cost |
| Total Survey \& Analysis Cost | \$7,901 | Calculated |
| C: Spill Cleanup |  |  |
| Affected Area (Acres) | - | Calculated |
| Affected Area (Square Feet) | - |  |
| Average Affected Thickness (Feet) | 0.25 |  |
| Affected Volume (Cubic Feet) | - | Calculated |
| Volume per Truck Load (Cubic Feet) | 540 |  |
| Number of Truck Loads | 0.0 | Calculated |
| Distance (Miles) | 105 |  |
| Cost per Mile | \$2.90 | Unit Cost |
| Transportation Cost | \$0 | Calculated |
| Handling Cost per Truck Load | \$238 | Unit Cost |
| Handling Cost | \$0 | Calculated |
| Disposal Fee per Cubic Foot | \$4.16 | Unit Cost |
| Disposal Cost | \$0 | Calculated |
| Total Spill Cleanup Cost | \$0 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 33 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| Assumptions/ltems | Mine Unit No. $1$ | Source |
| :---: | :---: | :---: |
| III WELLFIELDS (continued) |  |  |
| D. Revegetation |  |  |
| Fertilizer Cost per Acre | \$52.33 | Unit Cost |
| Seeding Preparation \& Seeding Cost per Acre | \$189.85 | Unit Cost |
| Mulching \& Crimping Cost per Acre | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | Calculated |
| Total Revegetation Cost | \$6,697 | Calculated |
| TOTAL WELLFIELDS COST | \$15,279 | Calculated |
| IV ROADS |  |  |
| A. Topsoil Handling \& Grading |  |  |
| Affected Area (Acres) | 11.1 |  |
| Main Road <br> Lengths <br> (ft) Secondary <br> Road Lengths <br> (ft) |  |  |
| 1,556 |  |  |
| 594 |  |  |
| 228 |  |  |
| 356 966 |  |  |
| $362 \quad 391$ |  |  |
| $211 \quad 276$ |  |  |
| 2,309 291 |  |  |
| 1,260 311 |  |  |
| 244 |  |  |
| 1,029 330 |  |  |
| 5,049 323 |  |  |
| 13,198 3,145 Total Road Lengths (Feet) |  |  |
| 2012 Road Width (Feet) |  |  |
| 128 Road Borrow (Feet) |  |  |
| 3220 Road Width and Borrow (Feet) |  |  |
| 9.7 1.4 Road Area (Acres) |  |  |
| 11.1 Total Road Area (Acres) |  |  |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 34 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| Assumptions/ltems | $\begin{array}{\|c} \hline \text { Mine Unit No. } \\ 1 \end{array}$ | Source |
| :---: | :---: | :---: |
| IV ROADS (continued) |  |  |
| A. Topsoil Handling \& Grading (continued) |  |  |
| Average Affected Thickness (Inches) | 15 |  |
| Topsoil Volume (Cubic Yards) | 22,385 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$25,295 | Calculated |
| Grading Cost per Acre | \$56.28 | Unit Cost |
| Grading Cost | \$625 | Calculated |
| Scarify Compacted Area per Acre | \$53.83 | Unit Cost |
| Scarify Cost | \$598 | Calculated |
| Total Topsoil Handling \& Grading Cost | \$26,517 | Calculated |
| B. Radiation Survey \& Soil Analysis |  |  |
| Survey \& Analysis Cost per Acre | \$653.00 | Unit Cost |
| Total Survey \& Analysis Cost | \$7,248 | Calculated |
| C. Revegetation |  |  |
| Fertilizer Cost per Acre | \$52.33 | Unit Cost |
| Seeding Preparation \& Seeding Cost per Acre | \$189.85 | Unit Cost |
| Mulching \& Crimping Cost per Acre | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | Calculated |
| Total Revegetation Cost | \$6,143 | Calculated |
| TOTAL ROADS COST | \$39,909 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 35 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| Assumptionslltems | Mine Unit No. $1$ | Source |
| :---: | :---: | :---: |
| V OTHER |  |  |
| A. Topsoil Handling \& Grading |  |  |
| Affected Area (Acres) | 1.0 |  |
| Average Affected Thickness (Inches) | 15.0 |  |
| Topsoil Volume (Cubic Yards) | 2016.67 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$2,279 | Calculated |
| Grading Cost per Acre | \$56.28 | Unit Cost |
| Grading Cost | \$56 | Calculated |
| Total Topsoil Handling \& Grading Cost | \$2,335 | Calculated |
| B. Radiation Survey \& Soil Analysis |  |  |
| Survey \& Analysis Cost per Acre | \$653.00 | Unit Cost |
| Total Survey \& Analysis Cost | \$653 | Calculated |
| C. Revegetation |  |  |
| Fertilizer Cost per Acre | \$52.33 | Unit Cost |
| Seeding Preparation \& Seeding Cost per Acre | \$189.85 | Unit Cost |
| Mulching \& Crimping Cost per Acre | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | Calculated |
| Total Revegetation Cost | \$553 | Calculated |
| TOTAL OTHER COST | \$3,542 | Calculated |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 36 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| Assumptions/ltems | Mine Unit No. 1 | Source |
| :---: | :---: | :---: |
| VI REMEDIAL ACTION |  |  |
| A. Topsoil Handling \& Grading |  |  |
| Affected Area (Acres) | 17.1 |  |
| Average Affected Thickness (Inches) | 0.0 |  |
| Topsoil Volume (Cubic Yards) | 0 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$0 | Calculated |
| Grading Cost per Acre | \$0.00 | Unit Cost |
| Grading Cost | \$0 | Calculated |
| Total Topsoil Handling \& Grading Cost | \$0 | Calculated |
| B. Radiation Survey \& Soil Analysis |  |  |
| Survey \& Analysis Cost per Acre | \$0.00 | Unit Cost |
| Total Survey \& Analysis Cost | \$0 | Calculated |
| C. Revegetation |  |  |
| Fertilizer Cost per Acre | \$52.33 | Unit Cost |
| Seeding Preparation \& Seeding Cost per Acre | \$189.85 | Unit Cost |
| Mulching \& Crimping Cost per Acre | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | Calculated |
| Total Revegetation Cost | \$9,464 | Calculated |
| TOTAL REMEDIAL ACTION COST | \$9,464 | Calculated |
| TOTAL TOPSOIL REPLACEMENT AND REVEGETATION COST | \$108,166 |  |

Table RP-4 Reclamation/Restoration Bond Estimate (Page 37 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: G. Miscellaneoues Reclamation Activities - WORKSHEET 8

| Assumptions/ltems | Quantity | Source |
| :---: | :---: | :---: |
| I FENCE REMOVAL \& DISPOSAL |  |  |
| Length (Feet) | 9,500 |  |
| Removal \& Disposal Cost per Foot | \$0.34 | Unit Cost |
| TOTAL FENCE REMOVAL AND DISPOSAL COST | \$3,230 | Calculated |
| II CULVERT REMOVAL \& DISPOSAL |  |  |
| Length (Feet) | 200 |  |
| Removal \& Disposal Cost per Foot | \$1.74 | Unit Cost |
| TOTAL CULVERT REMOVAL \& DISPOSAL COST | \$348 | Calculated |
| III UTILITIES |  |  |
| Number of Months | 6 |  |
| Cost per Month | \$2,380 | Unit Cost |
| TOTAL UTILITIES COST | \$14,280 | Calculated |
| IV DDW PIPELINE REMOVAL AND DISPOSAL |  |  |
| Length (Feet) | 21,730 |  |
| Removal \& Disposal Cost per Foot | \$2.43 | Unit Cost |
| TOTAL DDW PIPELINE REMOVAL \& DISPOSAL COST | \$52,804 | Calculated |
| TOTAL MISCELLANEOUS RECLAMATION ACTIVITIES COST | \$70,662 | Calculated |


[^0]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

[^1]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

[^2]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

[^3]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

[^4]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

[^5]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

[^6]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

[^7]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

[^8]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

[^9]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

[^10]:    Lost Creek Project
    WDEQ-LQD Permit to Mine Application
    Original Dec07; Rev10 Nov10

