Mine Operation and Reclamation Plan

Copper Flat Mine Project
Sierra County, New Mexico

July 18, 2012

Submitted To: New Mexico Mining and Minerals Division
Energy, Minerals and Natural Resources Department
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WCO Sur-rebuttal
Exhibit # 1
TABLE OF CONTENTS

1.0 LIST OF ACRONYMS AND ABBREVIATIONS .............................................. 1

2.0 INTRODUCTION ......................................................................................... 3

2.1 Background ............................................................................................ 3

2.2 Overview of Proposed Mine Operations and Reclamation ...................... 4

3.0 PERMIT APPLICATION REQUIREMENTS [NMAC19.10.6.602] ................. 9

3.1 Permit Application Copies [602.A] ......................................................... 9

3.2 Public Availability of Permit Information [602.B] .................................. 9

3.3 Applicant Certification [602.C] ............................................................... 9

3.4 General Permit Information [602.D] ....................................................... 9

3.4.1 Name of the Applicant [602.D(1)] .................................................... 10

3.4.2 Permit Area and Surface/Mineral Ownership [602.D (2)] .................. 10

3.4.3 Applicant's Right of Entry [602.D (3)] .............................................. 10

3.4.4 Ownership and Controlling Interest [602.D (4)] ............................... 11

3.5 Other United States Operations [602.D (5)] ......................................... 11

3.6 Applicant's Agent [602.D (6)] ............................................................... 11

3.7 Other Permit Applications [602.D (7)] .................................................. 11

3.8 Notice Forms [602.D (8)] ..................................................................... 13

3.9 Permit Fee [602.D (9)] ........................................................................ 14

3.10 Separate But Interrelated Mining Operations [602.D (10)] .................... 14

3.11 Required Federal and State Permits [602.D (11)] ................................. 15

3.12 Sampling and Analysis Plan [602.D (12)] ............................................ 15

3.13 Baseline Data [602.D (13)] ................................................................. 15

3.13.1 Climate [602.D (13) (a)] ................................................................. 15

3.13.2 Topography [602.D (13) (b)] ............................................................ 16

3.13.3 Vegetation [602.D (13) (c)] ............................................................. 16

3.13.4 Wildlife [602.D (13) (d)] ............................................................... 17

3.13.4.1 Wildlife Habitat [602.D (13) (d) (i)] ....................................... 18

3.13.4.2 Wildlife Species [602.D (13) (d) (ii)] ....................................... 19

3.13.4.3 Wildlife Survey Data [602.D (13) (d) (iii)] ............................... 19

3.13.4.4 Wildlife Impacts and Wildlife Report [602.D (13) (d) (iv)] ....... 19

3.13.5 Soils [602.D (13) (e)] ................................................................. 19

3.13.6 Geology [602.D (13) (f)] ................................................................. 20

3.13.7 Hydrology [602.D (13) (g)] ............................................................... 21

3.13.7.1 Surface Hydrology Map [602.D (13) (g) (i)] ............................ 21

3.13.7.2 Surface Water Quantity and Quality [602.D (13) (g) (ii)] ........ 21

3.13.7.3 Hydrogeology [602.D (13) (g) (iii)] ......................................... 22
New Mexico Copper Corporation  
Permit Application Package – Copper Flat Project

3.13.7.4 Aquifer Characteristics [602.D (13) (g) (iv)] .............................................. 23
3.13.7.5 Probable Hydrologic Consequences [602.D (13) (g) (v)] ................................. 25
3.13.8 Prior Mining Operations [602.D (13) (h)] .......................................................... 26
3.13.9 Cultural Resources [602.D (13) (i)] ................................................................. 27
3.13.10 Land Use [602.D (13) (j)] ........................................................................... 27
3.14 Qualified Third-Party Review [602.D (14)] ............................................................ 28
3.15 Mining Operation and Reclamation Plans [602.D (15)] ........................................ 28
3.15.1 Mining Type and Method [602.D (15)(a)] .......................................................... 28
3.15.2 Project Schedule and Disturbance [602.D (15)(b)] .............................................. 30
3.15.3 Mine Facilities [602.D (15)(c)] ...................................................................... 31
  3.15.3.1 Ore Stockpiles [602.D (15) (c) (i)] ............................................................... 31
  3.15.3.2 Surface Water and Stormwater Management [602.D (15) (c) (iii)] .............. 31
  3.15.3.3 Disposal Systems [602.D (15) (c) (v)] ......................................................... 32
  3.15.3.4 Hazardous and Chemical Materials Management [602.D (15) (c) (v)] .......... 32
  3.15.3.5 Pit [602.D (15) (c) (vi)] .............................................................................. 33
  3.15.3.6 Tailings Storage Facility [602.D (15) (c) (vii)] ............................................. 33
  3.15.3.7 Mill and Concentrator Facilities [602.D (15) (c) (viii)] ............................... 34
  3.15.3.8 Water Treatment Facilities [602.D (15) (c) (ix)] ....................................... 40
  3.15.3.9 Storage Areas and Ancillary Facilities [602.D (15) (c) (x)] ........................ 40
  3.15.3.10 Growth Media Stockpile [602.D (15) (c) (xi)] ....................................... 42
  3.15.3.11 Waste Rock Disposal Facility [602.D (15) (c) (xii)] ............................... 42
  3.15.3.12 Other Facilities or Structures [602.D (15) (c) (xiii)] .............................. 43
3.15.4 Wildlife Mitigation and Contingency Plan [602.D (15) (d)] ............................. 43
3.15.5 Erosion and Sediment Control [602.D (15) (e)] ............................................... 43
3.15.6 Post-Mining Land Use [602.D (15) (f)] ............................................................. 43
3.15.7 Reclamation Plan [602.D (15) (g)] ................................................................. 44
  3.15.7.1 Facility-Specific Reclamation ................................................................. 45
  3.15.7.2 Concurrent Reclamation ...................................................................... 50
  3.15.7.3 Final Reclamation ................................................................................ 51
3.15.8 Reclamation Schedule and Sequence [602.D (15) (h)] .................................... 56
3.15.9 Post-Mining Topography [602.D (15) (i)] ......................................................... 57
3.16 Post-Mining Acid or Other Toxic Drainage [602.D (15) (j)] ............................ 57
3.17 Contemporaneous Reclamation [602.D (15) (k)] ................................................ 57
3.18 Additional Information [602.D (16)] ................................................................. 58
4.0 PERFORMANCE AND RECLAMATION STANDARDS AND REQUIREMENTS [19.10.6.603] ................................. 60
  4.2 Contemporaneous Reclamation [603.B] ............................................................. 60
  4.3 Protection Assurance [603.C] ....................................................................... 61

Mine Operation and Reclamation Plan  
July 18, 2012
4.3.1 Signs, Markers and Safeguarding 603.C (1)................................................................. 61
4.3.1.1 Shaft and Adit Closure 603.C (1) (a)................................................................. 61
4.3.1.2 Warning Signs 603.C (1) (b)................................................................. 61
4.3.1.3 Access Restriction to Hazardous Areas 603.C (1) (c)............................................ 61
4.3.1.4 Permit Area Boundaries 603.C (1) (d)................................................................. 61
4.3.1.5 Main Entrance Signage 603.C (1) (e)................................................................. 62
4.3.2 Wildlife Protection 603.C (2).................................................................................. 62
4.3.3 Cultural Resources 603.C (3).................................................................................. 62
4.3.4 Hydrologic Balance 603.C (4)................................................................................ 63
4.3.4.1 Drainage Control 603.C (4) (a)........................................................................ 63
4.3.4.2 Control of Suspended Solids 603.C (4) (b)......................................................... 64
4.3.4.3 Background Surface Water Monitoring 603.C (4) (c)...................................... 64
4.3.4.4 Diversions of Overland Flow 603.C (4) (d)......................................................... 64
4.3.5 Stream Diversions 603.C (5)................................................................................ 64
4.3.6 Impoundments 603.C (6)...................................................................................... 65
4.3.6.1 Tailings Storage Facility Design Criteria 603.C (6) (a)................................. 65
4.3.6.2 Reclamation of Tailings Storage Facility 603.C (6) (b)............................... 65
4.3.7 Mass Movement Minimization 603.C (7).............................................................. 65
4.3.8 Riparian and Wetland Areas 603.C (8).................................................................. 65
4.3.9 Roads 603.C (9)...................................................................................................... 65
4.3.9.1 Drainage Control Structures and Designs 603.C (9)(a)...................................... 66
4.3.9.2 Crossings of Intermittent or Perennial Streams 603.C (9)(b)............................ 66
4.3.9.3 Permanent Roads 603.C (9)(c)........................................................................ 66
4.3.10 Subsidence Control 603.C (10)............................................................................. 66
4.3.10.1 Aquifer Disruption 603.C (10)(a).................................................................. 66
4.3.10.2 Mining Beneath Perennial Streams 603.C (10)(b)........................................... 66
4.3.11 Explosives 603.C (11).......................................................................................... 66
4.4 Site Stabilization and Configuration 603.D............................................................... 67
4.4.1 Final Slopes and Drainage Configuration 603.D (1).................................................. 67
4.4.2 Backfilling 603.D (2)............................................................................................. 67
4.4.3 Slope Stability 603.D (3)....................................................................................... 67
4.4.4 Acid or Other Toxic Drainage Information 603.D (4).............................................. 68
4.4.5 Non-Point Source Releases 603.D (5).................................................................... 68
4.5 Topdressing and Cover Materials 603.E................................................................. 69
4.5.1 Suitability 603.E (1)............................................................................................... 69
4.5.2 Salvage 603.E (2)................................................................................................. 69
4.5.3 Stockpiling 603.E (3)............................................................................................. 70
4.5.4 Re-Distribution 603.E (4)..................................................................................... 71
New Mexico Copper Corporation
Permit Application Package – Copper Flat Project

4.5.5 Stabilization [603.E (5)] ................................. 71
4.5.6 Amendments [603.E (6)] ................................. 71
4.6 Erosion Control (603.F) ................................. 71
4.7 Revegetation Success (603.G) ............................... 72
4.8 Self-Sustaining Site (603.H) .............................. 73
5.0 PERMIT APPROVAL REQUIREMENTS [605] ......... 74
5.1 Financial Assurance [605.F] ............................ 74
6.0 REFERENCES ............................................ 75

LIST OF TABLES
Table 1 Expected Project Water Demand
Table 2 Existing Production and Monitoring Well Locations
Table 3 Summary of Legal Description
Table 4 List of Anticipated Permits and Approvals
Table 5 Permit Fee Summary
Table 6 Mining Activities and Land Disturbances
Table 7 Expected Dimensions and Construction of Mine Facilities
Table 8 Excepted Chemical Use
Table 9 Estimated Reclamation Cover Requirements
Table 10 Proposed Interim and Final Reclamation Seed Mixes
Table 11 Functions and Attributes of the Primary Plant Species Proposed for the Copper Flat Reclamation
Table 12 Alternative or Substitute Plant Species for Copper Flat Seed Mixtures
Table 13 Proposed Final Reclamation Schedule and Sequence
Table 14 Estimated Available Cover Materials from Newly Disturbed and Redisturbed Areas

LIST OF FIGURES
Figure 1 Site Location
Figure 2 Proposed Permit Boundary, Land Status and Existing Land Disturbance
Figure 3 Utility Rights-of-Way
Figure 4 Mining Claims
Figure 5 Mill Site and Supply Well Locations
Figure 6 Proposed Facility Layout
Figure 7 Proposed Facility Topography

LIST OF APPENDICES
Appendix A Sampling and Analysis Plan
Appendix B Baseline Data Report
Appendix C IMC Mining Sequence Maps
Appendix D Reclamation Designs
Appendix E Financial Assurance Package
aids. Residual reagent concentrations in the tailings and reclaim water streams, as well as the concentrate, are expected to be present at low concentrations. The details of reagent management used as part of the copper/molybdenum concentrating process are included in Section 3.15.3.7.

Hazardous materials and substances that may be transported, stored and used at the Copper Flat mine in quantities less than the Threshold Planning Quantity designated by the Superfund Amendments and Reauthorization Act Title III for emergency planning are described in the Plan of Operations (NMCC 2011). Management of these and other hazardous materials would be in compliance with all applicable federal, state and local requirements, including the inventorying and reporting requirements of Title III of the Comprehensive Environmental Response, Compensation and Liability Act.

All petroleum products and reagents used would be stored in above-ground tanks within secondary containment as required by federal, state and local requirements and regulations. A preliminary Spill Prevention Control and Countermeasures (SPCC) plan has been developed and is included in NMCC (2012). The SPCC Plan will be maintained for the mine and mill site and provide contingencies to mitigate potential impacts from emergency or accidental releases of petroleum substances. Hydraulic oils, lubricants, antifreeze and other such liquids will all be stored in relatively small quantities, insufficient to cause any impact should they somehow be accidentally released. With the exception of the storage and use of diesel fuel and/or gasoline, all other materials and supplies used onsite will be in small quantities. All other potentially toxic materials will be stored in secured facilities and would be disposed in compliance with state and federal requirements. NMCC does not intend to dispose of any hazardous materials on-site.

3.15.3.5 Pit [602.D (15) (c) (vi)]

The development of pit and mining is described in Section 3.15.1 above. Maps demonstrating the progression of pit development are provided in Appendix C.

3.15.3.6 Tailings Storage Facility [602.D (15) (c) (vii)]

An existing TSF at Copper Flat was constructed by Quintana Minerals to serve their 1982 mining operation. The storage facility received 1.2 million tons of material and was essentially reclaimed in 1986. The TSF remains in place and is located southeast of the former plant site. NMCC proposes to construct a new lined TSF over the area used by previous operations for tailings storage. Tailings would be transported from the mill via slurry pipeline and deposited in the new TSF. Ancillary facilities associated with the TSF would include a tailings slurry delivery system, a tailings solution reclaim and recycling system (barge pump system) and an underdrain seepage return system.

Approximately 100 million tons of tailings are expected to be stored over the life of the Project. Tailings deposition would be approximately 25,000 tpd. During progressive settlement, water would be pumped from the TSF and returned to the process circuit. The total expected water recovery by
New Mexico Copper Corporation  
Permit Application Package – Copper Flat Project

reclaim systems would be a nominal 70 percent. Water reporting to the TSF would be recovered from the pool of water that would form in the storage facility and be returned to the mill process water system for reuse. Precipitation would also contribute to the volume of water in the storage facility. The height of the embankment is designed to contain the normal operating volume of water completely within the storage facility, plus the amount of stormwater runoff from 75 percent of the probable maximum precipitation (PMP).

The size and location of the storage facility pool would vary during the life of the Project. The size of the pool would be affected by pre-deposition grading in the storage facility, the amount of tailings deposited, precipitation, evaporation rates, seepage rates into the designed embankment seepage collection system, infiltration into underlying soils and water recycling rates. The location of the pool would migrate within the storage facility as tailings beaches form. Tailings deposition would be managed to force the pool away from the embankment toward the upstream reaches of the storage facility. The TSF would be fenced to restrict access.

3.15.3.7 Mill and Concentrator Facilities [602.D.(15).c.(viii)]

For the most part, the plant facilities including the mill and concentrator would be constructed at the site of the original Quintana Minerals plant site. The crushing and concentrating plant complex would include buildings such as administrative offices, a truck shop, an electrical substation and a gatehouse. Some of the buildings will be prefabricated structures. Appropriate sanitary facilities would be provided for men and women. Table 7 provides the primary plant site structures and facilities and their approximate dimension and construction type.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Length (ft)</th>
<th>Width (ft)</th>
<th>Height (ft)</th>
<th>Diameter (ft)</th>
<th>Slab (ft)</th>
<th>Construction Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Crusher</td>
<td>90</td>
<td>30</td>
<td>103</td>
<td>--</td>
<td>0.83</td>
<td>Metal roof, metal siding</td>
</tr>
<tr>
<td>Electric Substation</td>
<td>94</td>
<td>68</td>
<td>--</td>
<td>1.00</td>
<td></td>
<td>slab only</td>
</tr>
<tr>
<td>Concentrator Building – Grinding Area</td>
<td>192</td>
<td>145</td>
<td>32</td>
<td>--</td>
<td>1.00</td>
<td>Metal roof, metal siding</td>
</tr>
<tr>
<td>Concentrator Building – Flotation Area</td>
<td>22</td>
<td>26</td>
<td>44</td>
<td>--</td>
<td>0.66</td>
<td>Metal roof, metal siding</td>
</tr>
<tr>
<td>Concentrator Building – Maintenance Office</td>
<td>13</td>
<td>12</td>
<td>14</td>
<td>--</td>
<td>0.50</td>
<td>Metal roof, metal siding</td>
</tr>
<tr>
<td>Concentrator Building - Reagent Area</td>
<td>100</td>
<td>52</td>
<td>24</td>
<td>--</td>
<td>0.83</td>
<td>Metal roof, block walls</td>
</tr>
<tr>
<td>Concentrate Thickeners (2)</td>
<td>--</td>
<td>--</td>
<td>50</td>
<td>--</td>
<td></td>
<td>Tank walls - metal</td>
</tr>
<tr>
<td>Assay &amp; Metallurgical Laboratory</td>
<td>180</td>
<td>40</td>
<td>16</td>
<td>--</td>
<td>0.50</td>
<td>Metal roof, metal siding</td>
</tr>
<tr>
<td>Gate/Change House</td>
<td>120</td>
<td>60</td>
<td>14</td>
<td>--</td>
<td>0.50</td>
<td>Metal roof, metal siding</td>
</tr>
<tr>
<td>Truck Repair Warehouse</td>
<td>340</td>
<td>90</td>
<td>--</td>
<td>--</td>
<td>1.00</td>
<td>Metal roof, metal siding</td>
</tr>
</tbody>
</table>

Table 7: Expected Dimensions and Construction of Mine Facilities

Mine Operation and Reclamation Plan 34 July 18, 2012
4.3.6 Impoundments [603.C (6)]
Impoundments would be designed, constructed and maintained to minimize adverse impacts to the hydrological balance and adjoining properties and to assure the safety of the public. All sediment collection and stormwater ponds would be decommissioned and reclaimed during mine closure.

4.3.6.1 Tailings Storage Facility Design Criteria [603.C (6) (a)]
The TSF would be designed and would be constructed and maintained to minimize adverse impacts to the hydrologic balance and adjoining property and to assure the safety of the public. Water reporting to the TSF would be recovered from the pool of water that would form in the storage facility and be returned to the mill process water system for reuse. Precipitation would also contribute to the volume of water in the storage facility. The height of the embankment is designed so that the storage facility completely contains both the normal operating volume of water and the amount of stormwater runoff from 75 percent of the PMP. The U.S. Department of Commerce (1988) estimates the 72-hour PMP depth is approximately 26 in in the vicinity of the project area. The TSF was designed in accordance with the design and dam-safety guidelines and regulations of the NMOSE Dam Safety Bureau (NMOSE, 2010).

4.3.6.2 Reclamation of Tailings Storage Facility [603.C (6) (b)]
At closure, the TSF will be reclaimed and graded to achieve positive drainage. Details regarding the reclamation of the TSF are provided in Section 3.15.7.1.4.

4.3.7 Mass Movement Minimization [603.C (7)]
All slopes, embankments and the stockpiles would be designed, constructed and maintained to prevent the potential for mass movement both during operations and following closure. Details of the WRDF and TSF designs are presented in Appendix D.

4.3.8 Riparian and Wetland Areas [603.C (8)]
The Copper Flat mine area is primarily a terrestrial habitat with limited riparian and wetland habitats (see Section 3.13.3). The primary riparian areas are associated with the Grayback Arroyo and the established diversion. There are no plans alter Grayback Arroyo or the diversion during mining or reclamation activities. NMCC does not anticipate any significant changes to the existing surface water flow conditions with operations and would endeavor to maintain the existing hydrologic conditions that appear to support the riparian areas. All riparian areas will be managed appropriately according to state and federal requirements.

4.3.9 Roads [603.C (9)]
For the most part, existing haul roads would be utilized to haul material to the crusher, stockpiles and WRDF. Some minor realignment of these roads may be necessary and road widths would vary. Roads would be constructed and maintained to control erosion.
MINING SEQUENCE MAPS
PRELIMINARY TAILINGS FACILITY DESIGN DRAWINGS