PERMIT REVISION 96-2 TO PERMIT NO. TA001RE

QUESTA MINE – MINE AND MILL SITE EXISTING MINING OPERATION

MINING AND MINERALS DIVISION ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Permit Revision 96-2 to Permit No. TA001RE is issued by the Director of the Mining and Minerals Division (MMD) of the New Mexico Energy, Minerals and Natural Resources Department to:

Molycorp, Inc. P.O. Box 469 Questa, NM 87556

(Permittee) for the Questa Mine Site, located in Taos County, New Mexico.

This permit revision incorporates the Closeout Plan for the mine and mill facilities of the Questa Mine into Permit No. TA001RE. The following sections of Permit No. TA001RE are added or revised to read as follows:

SECTION 1. STATUTES AND REGULATIONS

This Permit is issued pursuant to the New Mexico Mining Act, NMSA 1978, §69-36-1, et seq. (1993, as amended through 1999).

This permit is subject to all applicable requirements of the New Mexico Mining Act (Act); the New Mexico Mining Act Rules 19.10 New Mexico Administrative Code, Parts 1-14 (Rules), and any other regulations which are now or hereafter in force under the Act; and all such requirements and regulations are made a part of this Permit by this reference.

SECTION 2. PERMIT REVISION PACKAGE

A. The Permit Revision Package (PRP) is comprised of the following documents:

See Appendix A

SECTION 3. PERMIT AREA AND DESIGN LIMITS

A. The permit area encompasses portions of the following areas: Sections 1 and 2, Townships 28 North, Range 12 East, Sections 24, 25, 26, 35, and 36, Township 29 North, Range 12 East, Sections 5 and 6, Township 28 North, Range 13 East; Sections 25, 26, 27,

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28, 33, 34, 35, and 36 of Township 29 North, Range 13 East; Sections 1, 2, 3, 11, and 12 of Township 28 North, Range 13 East; Section 31 of Township 29 North, Range 14 East; and Section 6 of Township 28 North, Range 14 East, in Taos County, New Mexico (New Mexico Principal Meridian). The approved permit area is delineated in the PAP, in Revision 3 of Application for an Existing Mining Operation, submitted November 29, 1995, on the following figures:

- 1) Figure 1, *Site Map of Molycorp Questa and Mine Plant Facilities*, October 31, 1995
- 2) Figure 2, *Mine and Mill*, Sheets 1-4, October 16, 1995
- B. The approved revised design limits are delineated/described in the PRP on Figure 2-4 and individually in Table A-1 of the *Questa Mine Closeout Plan*, October 23, 2001. The revised units shown on Figure 2-4 and individually in Table A-1 of the *Questa Mine Closeout Plan*, October 23, 2001 are approved as existing units and are subject to the reclamation standard of §19.10.5.507.A of the Rules absent a waiver under §19.10.5.507.B of the Rules.

SECTION 4 DEFINITIONS

Whenever any terms defined in the Rules, are used in this Permit, including any documents incorporated herein by reference, those definitions shall apply. In addition, whenever the terms listed below are used in this Permit, including any documents incorporated herein by reference, the following definitions shall apply:

"Closeout Plan" means the permit revision to permit TA001RE that provides a detailed description of how disturbed areas within permit area will be reclaimed to meet the requirements of the Act and the Rules. "Closeout Plan" also means those documents listed in Appendix A. "DP-1055" means the Discharge Permit for the Questa Mine Facility issued by the New Mexico Environment Department.

"Effective Date" means the date of the Director of MMD's Order approving this Permit.

"Mine Rock Pile" means all non-ore grade material from the Open Pit, exclusive of ore-grade material sent to the mill.

"MMD" means the New Mexico Mining and Minerals Division within the New Mexico Energy, Minerals and Natural Resources Department.

"Molycorp" means Molycorp, Inc., a Delaware corporation and a wholly owned subsidiary of Union Oil Company of California.

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"Molycorp Questa Mine" means the molybdenum mine and milling facility owned and operated by Molycorp located near the Village of Questa in Taos County, New Mexico and all surrounding property over which Molycorp has an ownership interest or a leasehold interest.

"NMED" means the New Mexico Environment Department

"NMMA" means the New Mexico Mining Act, NMSA 1978, §69-36-1, et seq. (1993, as amended through 1999)

"NMMA Rules" means Title 19, Chapter 10, Parts 1 through 14 NMAC, and any amendments thereto.

"Open Pit" means the Questa Mine Pit from which the ore bearing and non-ore bearing rocks have been or will be removed by surface mining.

"Order" means the Director of MMD's Order approving the permit.

"Permit" means the original permit, TA001RE, issued to Molycorp by MMD dated December 31, 1998 and the permit revision incorporating the Closeout Plan for the Questa Tailings Facility into the permit, issued to Molycorp on February 5, 2001.

"Permit Revision (96-2)" means this permit revision which sets forth and approves a closeout plan for the Molycorp mine and mill facility.

"Reclamation" means the employment during and after a mining operation of measures designed to mitigate the disturbance of affected areas and permit areas and to the extent practicable, provide for the stabilization of a permit area following closure that will minimize future impact to the environment from the mining operation and protect air and water resources

"Surface Water(s) of the State" means all interstate waters including interstate wetlands, and all intrastate waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, reservoirs or natural ponds and all tributaries of such waters the use, degradation, or destruction of which would affect interstate or foreign commerce. Surface waters of the state also means any manmade bodies of water which were originally created in surface waters of the state or resulted in the impoundment of surface waters of the state. Waste treatment systems, including treatment ponds or lagoons designed to meet requirements of the Water Quality Act (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition), are not surface waters of the state.

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"Stability Review Board" means the Board commissioned to provide an independent review of Molycorp's Stability Evaluation relating to the rock piles situated at the Questa Mine site.

"Self-Sustaining Ecosystem" means reclaimed land that is self-renewing without augmented seeding, amendments, or other assistance, which is capable of supporting communities of living organisms and their environment. A self-sustaining ecosystem includes hydrologic and nutrient cycles functioning at levels of productivity sufficient to support biological diversity.

<u>SECTION 5.</u> <u>FINDINGS OF FACT</u>

- A. The Permit Application and Closeout Plan are complete and contain all of the information as required by §19.10.5.503.F(1) and §19.10.5.506.J(1) of the Rules.
- B. The Permittee has provided written information stating the name and official business address of the Permittee and its agent for service of process, as required by §19.10.5.503.F(2) of the Rules.
- C. The Permittee has provided the required signature and certification, as required by \$19.10.5.503.F(3) of the Rules.
- D. The Permittee has paid the revision application fee in the amount of \$7,500, as required by \$19.10.5.503.F.4 of the Rules.
- E Public notice for the Closeout Plan was given, as required by Part 9, and §19.10.5.506.J(1) of the Rules. A public hearing was held on the Closeout Plan beginning on September 5, 2001.
- F. The approved post-mining land uses (PMLU) for the permit area are forestry and water management. The PMLU is described in Section 3.1, Land Use, of the June, 2001 *Questa Mine Closeout Plan*.
- G. The Permittee has provided satisfactory financial assurance as required by §19.10.5.506.J(2). Financial assurance is composed of two instruments one in the form of a surety bond and the other in the form of a letter of credit.
- H. The Secretary of Environment provided a written determination on December 31, 2001 stating that the permit applicant has demonstrated that the activities to be permitted or authorized will be expected to achieve compliance with all applicable air, water quality and other environmental standards if carried out as described in the Mining Act Closeout Plan, as required by §19.10.5.506.J(5) of the Rules.

- I. The Permittee has submitted a notarized statement signed by the applicant that he agrees to comply with the performance and reclamation standards and requirements of the permit, Part 5 and the Act and allows the Director to enter the permit area without delay for the purpose of conducting inspections during mining and reclamation, as required by §19.10.5.503.F(6) and §19.10.5.506.J(6) of the Rules.
- J. According to §19.10.5.506.B, a proposed closeout plan or a proposed closeout plan for a portion of the mine shall include a detailed description of how the permit area will be reclaimed to meet the requirements of Section 69-36-11B(3) for the Act and the performance and reclamation standards and requirements of Part 5. The Closeout Plan as described in Appendix A is hereby approved subject to the conditions in Sections 8 and 9 of this Permit Revision.
- K. The Permittee has met the extension requirements for approval of the closeout plan pursuant to $\S19.10.5.501.D$ of the Rules.
- L. The Permittee has been granted a waiver for the Questa Mine Pit from the requirement of achieving a Self-Sustaining Ecosystem pursuant to §19.10.5.507.B NMAC and §69-36-11.B.3 of the Act.
- M. The Permittee's July 23, 2001 variance request regarding the subsidence zone has been approved. The variance is from §19.10.5.501.D of the Rules. The Subsidence areas identified in figure 1 of the variance request will not require a Closeout Plan until December 31, 2004.

SECTION 6. CLOSEOUT PLAN SUMMARY

The following consists of a summary of the proposed closeout plan submitted by Molycorp and contained in Appendix A. To the extent this summary deviates from the more detailed documents of Appendix A, Appendix A shall govern.

Post-Mine Land Use

A. The post-mine land use (PMLU) for the Questa Mine site is forestry. Development of a self-sustaining forest ecosystem comparable to the surrounding region is the goal of the Closeout Plan at the mine site.

Surface Shaping Plan

B. The mine rock piles will be regraded to slopes of no steeper than 3:1 (horizontial:vertical), unless underlying slopes exceed 3:1. In the event underlying slopes

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exceed 3:1, mine rock piles may instead be regraded to slopes no steeper than 2:1, to the maximum extent practicable.

Building Demolition and Clean-up Plan

C. Structures not designated for another use will be removed from the mine and mill site and the area returned to a forestry PMLU.

Cover Placement on Disturbed Areas

D. All mine rock piles determined to have a potential to generate acidic leachate will be covered with a minimum of 3 feet of non-acid generating growth medium, to the maximum extent possible. Cover material will be amended with lime as necessary to serve as a neutralizing agent. All covered mine rock piles will be revegetated to ensure long-term stability of the cover and to reduce surface water infiltration to the maximum extent practicable.

Leachate Collection System

- E. The Permittee will continue maintenance of the mine dewatering system so that capture of leachate from the mine workings and the open pit is maximized. The leachate collection system will ensure that contaminated groundwater in fractured bedrock is collected in a manner that prevents, to the maximum extent practicable, any additional contamination of groundwater and its subsequent impacts on surface water. The collection system will include seepage capture systems constructed at the toe of the Sulphur Gulch, Middle, Sugar Shack South, Sugar Shack West, Goat Hill, and Capulin Canyon mine rock piles.
- F. The seepage capture system may be upgraded and will be operated in accordance with requirements as approved by NMED.

Water Treatment and Disposal

G. The Permittee will construct and maintain a water treatment plant for long-term treatment of water which will be operated in accordance with requirements as approved by NMED. Treated water shall be discharged in accordance with State and Federal law including all applicable state and federal permits.

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H. After implementation of the closeout plan is complete, dewatering, collection, treatment, and disposal of leachate and water shall continue.

Groundwater and Surface Water Monitoring

I. The existing groundwater and surface water monitoring programs will be continued after closeout in accordance with DP-1055. The monitoring programs will be adjusted as required by NMED to monitor water quality conditions.

Drainage Plan

J. Surface runoff from the mine rock pile cover will be controlled and collected in erosion control ditches and channels.

Revegetation Monitoring

- K. The Permittee shall perform long-term vegetation monitoring of reclaimed areas annually, over an extended period of time. This time frame will include a 5- to 10-year monitoring and maintenance period, during which the monitoring program will assist in the evaluation of interim reclamation management objectives. This will be followed by a minimum 12-year monitoring period, which will commence after the final maintenance procedures have been completed. The minimum 12-year monitoring period without maintenance will determine whether or not the permit area has been reclaimed to a condition that allows for the re-establishment of a Self-Sustaining Ecosystem.
- L. The Permittee will implement a systematic, statistically based monitoring program to confirm that the "site is reclaimed to a condition that allows for re-establishment of a Self-Sustaining Ecosystem appropriate for the life zone of the surrounding areas" (19.10 NMAC, Part 5, 19.10.5.507).
- M. The Permittee will implement a Revegetation Monitoring Program that will evaluate growth medium development, plant establishment and growth performance, to verify that the plant community is developing into a Self-Sustaining Ecosystem. Additionally, the program will provide a mechanism for implementing corrective action if the revegetation plan goals are not being met. The Revegetation Monitoring Program will consist of the following activities:
 - Collecting annual substrate, meteorological and vegetation performance data on the reclaimed areas.
 - Documenting trends in substrate and vegetation parameters over time.

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- Identifying areas where substrate and vegetation development may be performing below expectation.
- Providing recommendations for maintaining revegetated areas.
- Data to be collected shall include diversity, density, ground cover, and shrub and tree survival and growth.
- N. If plant nutrient deficiencies appear or if vegetation monitoring indicates that, due to natural or other causes, a reclaimed area does not exhibit the potential to achieve the revegetation performance standards described above, the Permittee shall prepare a report which describes the area in question, the situation as identified, probable causes, and a corrective action plan. This report shall be submitted to MMD in a timely manner. The corrective actions to be taken include, but need not be limited to, soil amendments, reseeding of herbaceous cover, and replanting of trees, shrubs, and sub-shrubs. Revegetated areas will be qualitatively evaluated on an annual basis to determine the extent of colonization by invasive species. Detailed plans for weed control will be developed as needed.

Revegetation of Disturbed Areas

- О. The Permittee's revegetation plan has three main components: 1.) the conceptual design, 2.) the planting methods and techniques, and 3.) establishment period maintenance requirements. The conceptual design provides an overview and general picture of the final configuration of the revegetation plan. The planting methods and techniques component describes the process of implementing the revegetation plan and has two major performance objectives: 1.) short-term vegetation performance, and 2.) mid to long term vegetation performance. The short-term vegetation performance objective is to reduce erosion rates by the planting and establishment of fast growing grasses and forbs legumes, and potentially, woody plants. The mid to long term vegetation performance objective is to achieve the eventual establishment of a forest ecosystem. This will be implemented either through simultaneous establishment of woody vegetation with herbaceous cover, or as a separate second phase. This will require a 5 to 10 year post planting management and monitoring phase and a minimum 12 year post final amendment phase. Standards will potentially be met within a 15 to 22 year period after initial planting.
- P. The Permittee will apply a mixture of grasses, forbs and selected woody species to establish the initial vegetation cover for erosion and infiltration control on cut and fill slopes. Vegetation established in drainage channels may be restricted to herbaceous species only, although selected native woody species of high evapotranspiration potential may also be established. Preliminary mixtures and application rates of grasses and forbs

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for herbaceous cover establishment are provided in the closeout plan in Tables 1-3 through 1-5. Final species selection will be based upon thorough characterization of the in-place cover material, availability of seed and containerized stock, and recommendations derived from site-specific performance data.

Vegetative Management Objectives and Standards

- Q. The final 12 year post-amendment vegetation standards shall be: A woody plant density equal to or greater than 320 stems per acre comprising 2 species of conifer at a density of 220 stems per acre, and a mixture of 4 species of deciduous trees, shrubs and sub-shrubs of a combined density of 100 stems per acre. Total herbaceous and woody canopy cover = 30 percent (total canopy cover = herbaceous species foliar cover plus woody species crown cover)
- R. A diversity standard of at least 1 warm season grass, 4 cool season grasses, 2 forbs, 2 species of conifer, 4 species of deciduous trees, shrubs and/or sub-shrubs. There shall be at least 1 leguminous species, which may be a forb or shrub/tree.

Roads Closure

S. Some roads and fences will be left post-closure to facilitate and control access to the site. Also, some roads will be needed to provide for post-closure access for maintenance and monitoring. Roads not needed will be reclaimed by ripping, seeding and planting.

Pit Reclamation

- T. The Permittee shall reclaim the following portions of the pit to meet the standards addressed under Section 6.Q and R of this permit.
 - 1). The bottom of the pit and the haul roads that are accessible will be covered with a minimum of 3 feet of cover material and revegetated.
- U. The Permittee shall take the following reclamation measures to help stabilize portions of the pit where practicable and meet applicable federal and state regulations:
 - 1). Trees and shrubs will be manually planted on accessible slopes;
 - 2). Aerial seeding will be performed on other portions of the pit slope and benches;
 - 3). Surface water run-on diversion ditches around the north side of the pit will be constructed as a source control of runoff from natural/undisturbed ground; and

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4). Surface water runoff from the pit slopes will be conveyed to the underground workings and pumped to the water treatment plant.

Revised Closeout Plan and Contingency Plan

V. Molycorp shall submit a revised Closeout Plan and revised contingency plan on or before April 30, 2004.

<u>SECTION 7.</u> <u>PERMIT COVERAGE</u>

This permit shall be binding on any person or persons conducting mining and closeout/reclamation operations under this permit.

<u>SECTION 8.</u> <u>COMPLIANCE WITH THE PERMIT</u>

The Permittee shall conduct reclamation operations only as described and approved in this Permit Revision, and any subsequent revisions or modifications approved by the Director. The Permittee shall comply with any and all conditions that are incorporated into the Permit Revision. The Permittee and MMD have exchanged various correspondence between June 1994 and the date this Permit Revision is approved regarding the proposed reclamation operations and the conditions of this Permit Revision. Documents described in Appendix A and contained in the Permit Revision Package are incorporated into this Permit Revision and may be used to interpret reclamation operations described in this Permit Revision. Documents described in Appendix B are not part of the Permit Revision Package, but consist of other documents exchanged between the Permittee and MMD and may also be used to interpret plans for the proposed reclamation operations and conditions of this Permit Revision, to the extent such documents have not been superseded, rendered obsolete or otherwise been completely replaced by documentation contained in the Permit Revision Package.

SECTION 9. CONDITIONS

General

The closeout plan proposed by The Permittee and contained in Appendix A is subject to the conditions set forth below, which are required for the Permittee to meet the requirements of Part 5 of the Rules:

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- A. The Permittee may be subject to enforcement action according to Part 11 of the Rules for failing to conduct reclamation and closeout operations as required by Part 5 of the Rules, failing to conduct reclamation and closeout as described in the Permit, or for failing to submit any of the following:
 - 1) annual reports as required by §19.10.5.510 of the Rules;
 - 2) annual fees as required by §19.10.2.202 of the Rules.
- B. The Permittee shall include in the annual reports, required by §19.10.5.510 of the Rules, the following information: 1) status of the operation, including but not limited to, the status of closure activities for each unit; 2) any maintenance and repair work conducted for any closure component; 3) production figures for the operation; 4) the location of the disturbed areas on maps and, if reclaimed, the date the work was done; 5) the number of disturbed acreage, the number of acres reclaimed, and the number of acres yet to be reclaimed; 6) vegetative monitoring data collected on re-vegetated areas; 7) meteorological data collected for the Questa Mine; 8) the current market value of any collateral posted as financial assurance in accordance with Part 12 of the Rules; 9) the compliance status for all existing state and federal environmental permits held by the Permittee for the operation, and 10) observations of wildlife impact or use of reclaimed areas.
- C. The Permittee shall notify MMD 30 days prior to performing any closeout/reclamation activities at the mine site.

Post-Mine Land Use

- D. Pursuant to §19.10.1.7. P.(5) of the Rules, the post-mine land uses for the Questa Mine site are forestry and water management. All areas of the site, other than E below, that have not been waived from the requirement to achieve a Self-Sustaining Ecosystem or are subject to the variance approved on May 24, 2002, shall be developed to allow for the establishment of a self-sustaining forest ecosystem.
- E. Other portions of the site shall be developed to accommodate a permanent water management system for the site. Areas designated as forestry may contain wells, impoundments, and drainage and conveyance systems necessary for water treatment. The Permittee shall provide a detailed map identifying those portions of the site to be established to the designated PMLUs of forest ecosystem and water management . The map shall be updated in the revised Closeout Plan due April 30, 2004.

Financial Assurance

- F. The Permittee and MMD shall evaluate the adequacy of the financial assurance approved as a part of the permit every three years. The first evaluation shall be provided by April 30, 2004. When due, this evaluation shall be provided to MMD with the annual report.
- G. The Permittee shall not be released from final financial assurance requirements until the approved post-mine land use is achieved and the performance standards have been met in accordance with Section 6. Q and R of this permit, or as modified and approved by MMD. However, a part of the financial assurance may be released in accordance with §19.10.12.1210 of the Rules. The last 3 years of the 12-year post-closure, revegetation monitoring period shall be used to evaluate whether financial assurance shall be released pursuant to §19.10.12.1204 of the Rules.
- H. Pursuant to \$19.10.12.1210 and \$19.10.5.507.A of the Rules, the Permittee must show that the reclamation or Closeout Plan, or a phase of the reclamation or Closeout Plan covered by the financial assurance, has been accomplished in accordance with the requirement to ensure that the permit area will be reclaimed to a condition that allows for the re-establishment of a Self-Sustaining Ecosystem, prior to complete or partial release of financial assurance.
- I. In the event of forfeiture, expenditure of funds on specific reclamation activities shall be at the discretion of the agencies responsible for reclamation requirements.

Surface Shaping and Stormwater Management

- J. The Permittee shall construct an alternating slope-bench configuration on all Mine Rock Pile slopes. The inter-bench slope segments shall be no steeper than 3:1 (horizontal: vertical), unless underlying slopes exceed 3:1. In the event the underlying slope segments are steeper than 3:1, Mine Rock Piles may instead be regraded to no steeper than an inter-bench slope of 2:1, to the maximum extent practicable.
- K. The maximum continuous slope length of covered slopes between benching, ditching, outslope crest, outslope toe, or any other slope break feature shall be 200 feet. Terrace benching shall be inclined 1% to 5% to the extent practicable inward and shall have a longitudinal slope of no greater than 2% to the extent practicable.
- L. Surface runoff and runon from the mine rock pile cover shall be controlled and collected in erosion control ditches and channels. The surface runoff water will be transported to

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sedimentation ponds prior to discharge to natural drainages or treatment. Engineered channels with armored lining shall be provided on slopes to convey stormwater runon from top surfaces to detention basins or outlet channels at the toe. The slope channels shall be designed to convey at a minimum the 100-year, 24-hour design storm for the location. A continuous engineered channel with armored lining shall be provided on terrace benching at the intersection of bench and slope face. Armored lining shall be designed based on appropriate engineering criteria for stormwater and erosion control. This design may be revised based on the outcome of additional studies or information, as approved by MMD.

Building Demolition and Cleanup Plan

- M. All mine facilities not approved for a post-mine land use, according to 19.10.7.P(5), will be demolished and removed or buried. Demolition, removal, and/or burial shall be accomplished by meeting requirements of the following conditions.
 - 1) Footings, slabs, walls, pavement, manholes, vaults, stormwater controls, and other foundations abandoned in place over non-acid-generating material, and not demolished, shall be covered with topdressing to a depth of 36 inches minimum.
 - 2) Footings, slabs, walls, pavement, manholes, vaults, stormwater controls, and other foundations abandoned in place over non-acid-generating material, and demolished, shall be covered with topdressing to a depth of 24 inches minimum. Remaining foundations shall be broken up to allow for water drainage into the ground after building demolition.
 - 3) Covered footings, slabs, walls, pavement, manholes, vaults, stormwater controls, and other foundations shall be revegetated in accordance with the Closeout Plan and conditions of this permit revision.
 - 4) The Permittee shall abate contaminated soils that are potential source areas for ground water contamination in accordance with NMED requirements in and around all buildings and structures that have the potential to contaminate surface and groundwater.
 - 5) The Permittee shall submit a building removal plan to MMD for approval at least 180 days prior to any building removal or demolition. The building removal plan shall include a soil sampling plan, a sampling plan for the structures and a contingency plan to address potentially contaminated soils, debris and other materials beneath and surrounding the buildings.

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- 6) The Permittee shall remove, sell or dispose of all reagents, explosives and other hazardous chemicals according to applicable state and federal laws.
- N. The Permittee shall provide a detailed map for MMD approval in the revised Closeout Plan due April 30, 2004 showing all buildings and other mining related structures to be removed from the mine and mill site area, as well as those proposed to remain at the sites post-reclamation.

Revegetation

- O. The Permittee shall submit for MMD approval seed mixtures and planting rates for all areas to be revegetated as part of the Closeout Plan. The proposed seed mixtures and planting rates shall be provided to MMD, within 6 months after completion of the revegetation studies addressed in Section 9.SS of this permit revision approval.
- P. The Permittee shall provide a revised revegetation plan, for MMD approval, within 6 months after completion of the revegetation studies addressed in Section 9.SS, and borrow materials studies addressed in Section 9.BBB of this permit revision approval, that describes if borrow material will be amended with fertilizer and/or organic material as determined by the revegetation studies, to assist in the establishment of self-sustaining plant communities of the types described by the Permittee in the Closeout Plan.
- Q. The Permittee shall submit for MMD approval a plan, within 12 months of permit approval, that includes the methods to be used to collect vegetation data on reclaimed areas once closeout of the site has been initiated. The plan shall include the statistical methods to be used to verify sampling confidence and adequacy.

Revegetation, Meteorological, and Wildlife Monitoring

- R. The Permittee shall provide the results of annual revegetation monitoring to MMD in the annual report due on April 30th of each year. Revegetation monitoring shall include measurements of plant diversity, density, cover, and shrub and tree survival and shrub and tree growth.
- S. The Permittee shall conduct post-closure monitoring of meteorological conditions at the mine and mill site. Meteorological conditions that shall be recorded include air temperature, relative humidity, wind speed, wind direction, precipitation, and net radiation. A summary of meteorological data collected shall be reported annually to

MMD.

T. The Permittee shall document wildlife use of areas to be reclaimed for a forestry postmining land use as follows: Large mammal surveys shall be conducted seasonally beginning year nine of the 12 year post closure monitoring period described in §19.10.12.1204 of the Rules. Bird diversity surveys shall be conducted seasonally beginning year nine of the 12 year post closure monitoring period described in §19.10.12.1204 of the Rules. The results of these wildlife surveys shall not be tied to bond release. Results will be evaluated to determine wildlife use trends during reestablishment of a Self-Sustaining Ecosystem. The Permittee shall submit for MMD approval, a wildlife monitoring workplan, identifying sampling methodologies and a map with sampling locations by April 30, 2004.

Water Monitoring

U. Existing and any new components of the groundwater and surface water monitoring programs installed after the issuance of the NMED Discharge Permit 1055 dated November 15, 2000 and NPDES Permit # No. NM0022306 effective February 1, 2001 will be continued after closeout in accordance with DP-1055 and the NPDES permit. The monitoring programs will be adjusted as required by NMED to monitor water quality conditions.

Erosion Control

- V. The following conditions apply to the reclaimed areas. The conditions for the reclaimed areas are required to mitigate the disturbances within the permit area and to the extent practicable provide for stabilization of the permit area that will minimize future impact to the environment and protect air and water resources in accordance with §19.10.1.107.R(1) of the Rules. The conditions are also required to reclaim the permit area to a condition that allows for re-establishment of a Self-Sustaining Ecosystem as required by §19.10.5.507.A of the Rules, NMAC and to meet applicable environmental standards as required by §69-36-11.B(4) of the Act and §19.10.5.506 J(5) of the Rules.
 - The Permittee shall inspect reclaimed lands for signs of excessive erosion and shall mitigate significant erosion features to prevent further degradation of the site. Drainage channels, diversion structures, retention ponds, and auxiliary erosion control measures will be inspected in accordance with professionally recognized standards. Inspections shall continue until the specific units are released under the New Mexico Mining Act. Inspections shall be conducted

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monthly for the first year following completion of reclamation construction activities for each unit, then quarterly for 3 years, and semi-annually thereafter. Reclaimed areas shall additionally be inspected for evidence of erosion after storm events of one inch or greater in any one-day period. Inspections shall continue until the specific units are released under the New Mexico Mining Act.

- 2) Where excessive erosion has occurred, the Permittee shall provide MMD with a report that describes the nature and extent of erosion and any corrective action taken to mitigate erosion, according to the following schedule. The Permittee shall verbally report evidence of significant rill, gully, or sheet erosion on any reclaimed area within 24 hours of discovery. The Permittee shall provide a written report within 30 days of discovery. The report shall describe the efforts taken to rectify the problem. Corrective action to mitigate the excessive erosion areas shall take place as soon as practicable after discovery.
- 3) Damaged erosion control measures shall be installed, repaired, or re-designed as necessary. The Permittee shall commit to using a variety of erosion control measures, as needed, if erosion control problems develop. Long-term erosion control measures will include the installation of berms, designed channels, and sediment containment structures, as necessary, and shall be designed at a minimum for a 100-year, 24-hour storm event. Short-term erosion control measures will include silt fences, hay bales, water bars, and mulching.
- 4) The Permittee shall develop a standard approach specific to the Questa Mine Site as part of the *Mine Rock Pile Erosion and Stability Evaluation, Questa Mine,* described in Condition YY, that will be used to identify excessive erosion at the mine and mill site.
- 5) The Permittee shall have a design limit for erosion on reclaimed slopes to less than 4 tons/acre/year in order to meet the Mining Act requirement to reclaim to a condition that allows for a Self-Sustaining Ecosystem, unless the results of the *Mine Rock Pile Erosion and Stability Evaluation* indicate that an alternative standard is appropriate.

Construction Quality Assurance Plan

W. The Permittee shall submit a construction quality assurance (CQA) plan to MMD for approval at least 180 days prior to rock pile regrading or the placement of any cover material over the mine rock piles for final closure.

- X. After rock pile regrading and placement of cover material a CQA report shall be provided within 90 days after construction which includes, at a minimum, as-built drawings, a final topographic map with no greater than twenty five-foot contour intervals, a summary of work conducted, soil testing results, laboratory analytical reports, identification of the location and extent of borrow areas, and construction photographs.
- Y. Detailed engineering designs for outlet structures and riprap-lined channels and swales shall be submitted for MMD approval at least 180 days prior to construction with the CQA plan. As-built drawings shall be provided within 90 days after construction.

Contingency Plan

Z. The Permittee shall incorporate a contingency plan into the revised closeout plan to be submitted by April 30, 2004. The contingency plan will address failure of any component of the revised closeout plan, including failure of covers or revegetation, failure of surface run-on and run-off controls, or failures in slope stability, that may result in non-compliance with the definition of reclamation, as defined in §19.10.1.7.R(1) of the Rules.

Road Closures

- AA. Unless needed for post-closure maintenance and monitoring, the surfaces of haul roads and maintenance roads shall be ripped or covered with topdressing to a depth of 24 inches minimum. Where located on acid-generating material, the surfaces of haul roads shall be covered with at least 36 inches of cover material capable of supporting a viable plant community Culverts shall be removed on all haul roads where practicable. The ripped and/or covered surfaces shall be graded for stormwater control. Haul roads shall be revegetated in accordance with the revegetation plan described in Section 6.0 and P of this permit.
- BB. The Permittee shall provide a detailed map for MMD approval in the revised Closeout Plan (April 30, 2004) showing all roads to be closed and reclaimed at the mine and mill site area, as well as those roads proposed to remain open at the sites post-reclamation.

Pit Reclamation

CC. The Permittee shall identify areas of the pit that will be reclaimed pursuant to Section 6.T. These areas have been identified in the closeout plan and described regarding the

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level of reclamation that will be applied. This information will be updated in the revised closeout plan, due April 30, 2004, if the nature of mining disturbance in the pit changes.

DD. Pit slopes that are 2:1 or flatter and accessible to reclamation equipment will be covered with 3 feet of cover material and revegetated.

Cover Suitability Criteria

EE. The Permittee shall select borrow material to be used as cover that is consistent to the surrounding area, suitable for the proposed ecosystem development and based on the physical, ecological, and geochemical criteria identified below. These criteria may be adjusted based on future test plot results or other information provided by the Permittee:

Physical Criteria

Clay/silt content of >10% and clay content < 45% - 2 mm fraction Coarse fraction (> 2 mm) < 50% by volume or \leq 60% by mass

Geochemical Criteria:

An Acid Base Accounting (ABA) evaluation that shows the material to be non-acid generating. The ABA evaluation shall include: paste pH, Net Neutralizing Potential, NP/AP, Total Sulfur%, Pyritic Sulfur %, Sulfate %, Mineralogy, or other laboratory analysis that shows the material to be non-acid generating.

FF. The Permittee shall include the appropriate amount of lime and/or other amendments to materials to be used as cover if it is found not to meet the geochemical suitability criteria identified in Condition EE.

Borrow Area Reclamation

GG. All borrow areas shall be graded for stormwater control, ripped to an overall minimum depth of 24 inches, and revegetated according to the requirements of the revegetation plan described in Section 6.0 and P of this permit. All slopes and high walls created by excavation of borrow pits shall be no steeper than 3:1.

Wildlife

HH. The Permittee shall commit to installing adequate wildlife exclusion fencing and other exclusion technologies in those areas wherever physical or chemical hazards to wildlife will exist under post-closure conditions, including sites with mine impacted water.

Landfills

II. The Permittee shall identify all landfills located on the mine and mill site provide a general description of the materials disposed of in the landfills and describe how the landfills will be reclaimed. This information shall be submitted to MMD for approval by April 30, 2004 with the revised Closeout Plan.

Reclamation Schedule

- JJ. A Reclamation Schedule is required pursuant to §19.10.5.506.B(1) of the Rules which states that the closeout plan shall include a description of the work to be performed and a schedule including anticipated starting and finishing dates, specifying the incremental work to be conducted and the period of time anticipated to be required for the various phases of the closeout.
- KK. Reclamation of units at the Questa Mine and mill shall begin in accordance with the Reclamation Schedule provided in Table 1. For purposes of this condition, "unit closure" refers to the closure of an individual mine unit in the event that the unit is no longer used in the mining operation. For purposes of this condition, "Full Mine Closeout" refers to permanent cessation of mining at the entire operation. The Permittee shall provide a schedule for unit closeout for the entire site to be inserted in Table I as part of the permit revision to be submitted April 30, 2004.
- LL. Reclamation of the site shall begin within 180 days of full mine closeout or as otherwise described in Table 1 below. For units that are being used during reclamation and/or are scheduled to be reclaimed more than 180 days after full mine closeout, measures shall be taken to provide for the stabilization of the disturbances that will minimize future impact to the environment and protect air and water resources.
- MM. The Permittee may submit for MMD approval a request to modify or revise any component of the Reclamation Schedule. The Reclamation Schedule shall be updated and resubmitted with the revised Closeout Plan to be provided for MMD approval by April 30, 2004.
- NN. Reclamation of the Questa mine and mill shall be as described in the schedule set forth in Table 1, unless to conducted pursuant to Condition 9.00 below.

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- OO. The Permittee shall conduct reclamation prior to full mine closeout in accordance with the following requirements:
 - 1) The Permittee will expend no less than \$3,000,000 per year for the three-year period following approval of the Closeout Plan on reclamation activities, provided that approval from the appropriate federal or state regulatory agencies has been obtained;
 - 2) The Permittee shall submit to MMD by September 30, 2002 a proposal for work to be performed in 2003, and to MMD by September 30, 2003 a proposal for work to be performed in 2004; and
 - 3) Three years from the date of closeout plan approval, and every five years thereafter, the Permittee shall have the option of renewing its agreement to perform reclamation prior to full mine closeout for an additional five-year term. The Permittee shall express its intent to perform such reclamation for an additional five-year term in writing thirty days before the current term ends. All additional five-year terms shall be subject to the terms of this Condition.

	FULL MINE CLOSEOUT	
Unit(s)/Mine	Anticipated Start	Anticipated
Disturbance	Date for Reclamation	Finish Date ¹
Mine Rock Piles		
Capulin Canyon	Within 2 years of	Within 13 years of start
Goat Hill North	permanent cessation of	date
Goat Hill South	Operations	
Sugar Shack West		
Sugar Shack South		
Sugar Shack Middle		
Sulfur Gulch South		
Sulfur Gulch		
North/Blind Gulch		
Mill Site and Roads		

Table 1 Reclamation Schedule for Questa Mine and Mill

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Mill and Old Tailings	Within 180 days of	5
	permanent cessation of	date
	operations	
Roads	Within 180 days of	Within 1 year of start date
	permanent cessation of	
	operations	
Questa Pit ³		
Questa Pit Reclaim	Within 8 years of	Within 5 years of start
Area	Closeout Plan approval	date
Truck Shop Slice	Within 180 days of	Within 2 years of start
-	permanent cessation of	date
	operations	
Subsidence Zone		
Goat Hill Zone	To be determined upon	To be determined upon
"D" Ore Body Zone	approval of subsidence	approval of subsidence
Vein Zone ³	area closeout plan	area closeout plan
F2 Extraction ³	I	Ĩ
Borrow Areas and Mis	С	
Individual borrow	Within 1 year of	Within 8 years of start
areas (e.g. Spring	completion of cover	date
Gulch)	placement for entire site	
Water Treatment		
Implemented through		
existing facilities or	In accordance with DP-	In accordance with DP-
Construction of Plant ²	1055 and NPDES	1055 and NPDES permits
	permits	
Surface Water Treatm	1	
Construction of	, , , , , , , , , , , , , , , , , , ,	In accordance with DP-
System	1055 and NPDES	1055 and NPDES permits
	permits	Toos and the bes permits
Run On Ditch Constru	1	
		In accordance with DP-
	1055	1055
System		1055

¹Anticipated Finish Date means completion of grading and cover placement with expected preliminary planting to be completed within 2 years of finish date. ²The water treatment approach will be implemented as described in DP-1055 and the NPDES

discharge permit.

³ For areas where the open pit and subsidence zone design limits overlap, the Questa Pit closeout plan must be followed until a subsidence closeout plan is approved.

Temporary or Early Closure

- PP. Closeout/Reclamation activities, as described in the Closeout Plan and the permit, shall begin 180 days after permanent cessation of operations or as otherwise described in Table 1 above. If the Permittee wishes to suspend reclamation pursuant to the schedule in this permit, and the cessation of operations will be temporary in accordance with the definition for standby addressed under §19.10.1.7.S(5) of the Rules, the Permittee shall submit an application for a permit revision for standby status pursuant to §19.10.5.505 and Part 7 of the Rules.
- QQ. In the event of an early cessation of mining that is not as described in the Closeout Plan schedule, the Permittee shall submit a revision to the permit. The submittal shall include construction designs that address how closeout and reclamation will proceed to facilitate positive drainage, prevent ponding and allow for the establishment of a Self-Sustaining Ecosystem. The plan shall be provided to MMD for approval within 90 days after cessation of mining.

Groundwater and Surface Water Issues

RR. Implementation of the closeout plan shall include, stormwater and seepage (leachate) interception, dewatering, treatment, and disposal of leachate and stormwater in accordance with requirements as approved by NMED. Treated water, shall be discharged in accordance with law, including all applicable state and federal permits. By-product treatment sludge shall be stored on-site in lined impoundments subject to approval by NMED.

On-going Studies

Revegetation

SS. The Permittee shall revise the Work Plan for Vegetation Test Plot Program – Mine Site Facility (Molycorp Inc., January 31, 2000) and submit it for MMD approval by June 4, 2002. The test plot study will be designed to determine the sequencing of planting at the site. At a minimum, the test plot study will be designed to measure and evaluate the following: 1) species abundance/diversity; 2) planting survival rates; 3) shoot growth for woody plants; 4) woody plant density; 5) plant canopy cover, and 6) species diversity. The Permittee must establish test plots that adequately evaluate the ability to achieve the revegetation plan described in the Closeout Plan. Test plot construction will be initiated

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by September 6, 2002 and completed by November 30, 2003 or as specified in the approved workplan, if MMD's approval of the work plan is provided by July 15, 2002. A minimum of 100 acres of test plots shall be established by November 30, 2003, unless otherwise specified in final approval of the test plot work plan.

- TT. The Permittee shall include in the test plot study, at a minimum, the following environmental variables to evaluate their impact on plant growth: seeding rates, seed mixtures, soil amendments (e.g. fertilizer, lime, etc.), slope design, and cover design. Test Plots will be of a large enough scale to approximate actual reclamation practices to be performed at the site. Test plots will also be used to evaluate alternative revegetation approaches, as approved by the Director.
- UU. The Permittee shall submit to MMD within 90 days after construction a description of the as-built vegetation test plots. This report shall include at a minimum a description of each of the test plots including number, size, location, and applications/parameters identified in Condition 9.SS and TT.
- VV. The Permittee shall include in the revised revegetation plan, for MMD approval, the methods to be used to collect vegetation data along with the statistical methods to be used to verify sampling confidence and adequacy. The methods shall match those used to evaluate disturbed areas that have been reclaimed.
- WW. The Permittee shall submit annual reports to MMD presenting the results of the test plot study, including recommendations for improvements to the test plot study. At the end of the first 2-year test plot evaluation period the Permittee shall submit an evaluation of the test plots. The report shall provide a discussion of the success or failure of specific revegetation efforts, evaluate trends, and identify limitations to plant establishment. The study will be continued until MMD makes a determination that the study will be discontinued.
- XX. If the results of the Revegetation Study indicate that additional or alternative closeout actions are necessary to ensure that the site will be reclaimed to a condition that allows for the re-establishment of a Self-Sustaining Ecosystem, and/or meet the requirements of reclamation defined under §19.10.1.7.R(1) of the Rules, the Permittee shall request a modification or revision to the permit. MMD will review the study to determine if a modification or revision of this permit is required by §19.10.5.504.B and §19.10.5.505.B of the Rules. The Permittee shall use the results to incorporate changes into the permit revision to be submitted by April 30, 2004.

Surface Erosion and Stability

- YY. The Permittee shall complete the *Mine Rock Pile Erosion and Stability Evaluation*, *Questa Mine*, (URS, April 2001) in consultation with MMD, the Stability Review Board and other interested parties. The results of the study shall be submitted to MMD for approval by April 30, 2004, and shall document how physical stabilization of the Mine and mill site will be achieved as part of site closure.
- ZZ. The study shall include an approach for identifying excessive erosion. As part of this study, the Permittee must design erosion control systems, that minimize soil loss off slopes. The Permittee shall monitor erosion rates as part of the vegetation test plot program addressed under Conditions 9.SS through XX. The results of the study will be used to identify erosion rates that might limit the ability of the operator to reclaim to a condition that allows for the re-establishment of a Self-Sustaining Ecosystem.
- AAA. If the results of the *Mine Rock Pile Erosion and Stability Evaluation, Questa Mine* indicate that reshaping of portions of the mine is necessary to address erosion and stability issues at closeout, the Permittee shall revise the surface shaping plan described in Section 6, item B of this permit. The surface-shaping plan shall be submitted to MMD as a modification or revision. If the results of the *Mine Rock Pile and Stability Evaluation, Questa Mine* indicate that other additional or alternative closeout actions are necessary to ensure that the site will be reclaimed to a condition that allows for the re-establishment of a Self-Sustaining Ecosystem, and/or meet the requirements of reclamation defined under §19.10.1.7.R(1) of the Rules, the Permittee shall request a modification or revision to the permit. MMD will review the study to determine if a modification or revision of this permit is required by §19.10.5.504.B and §19.10.5.505.B of the Rules. The Permittee shall use the results to incorporate changes into the permit revision to be submitted by April 30, 2004.

Borrow Materials

BBB. The Permittee shall complete the Borrow Materials Investigation in accordance with the *Mine Site Borrow Materials and Root Zone Investigation, Questa Mine* (Robertson GeoConsultants Inc., November 2000) and *Revision 1.0 Work Plan for Minesite and Root Zone Investigation at Molycorp, Questa, New Mexico* (URS Corp. July 23, 2001), and in consultation with MMD. The Permittee shall, at a minimum, measure and evaluate the following parameters: pH, electrical conductivity, sodium adsorption ratio, organic matter content, rock fragment content, texture, macro nutrient content, available water holding capacity, and plant available iron, zinc, manganese, calcium, magnesium, copper,

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lead, selenium, molybdenum, ABA, and C:N ratio. The parameters shall be measured and evaluated for borrow and mine rock pile materials. The investigation results shall be submitted to MMD for approval by October 1, 2003 months after permit approval, and shall document how the materials can be used to support plant growth and create a Self-Sustaining Ecosystem. The results of the study will identify what additional or alternative closeout actions are necessary to ensure that the site will be reclaimed to a condition that allows for the re-establishment of a Self-Sustaining Ecosystem, and/or meet the requirements of reclamation defined under §19.10.1.7.R(1) of the Rules. The Permittee shall use the results to incorporate changes into the permit revision to be submitted by April 30, 2004.

- CCC. The Permittee shall incorporate into the Closeout Plan a plan for reclamation and stabilization of borrow areas. The plan shall be submitted to MMD for approval by April 30, 2004. The plan shall identify the location and extent of each borrow area, and describe the reclamation procedures that will be used to stabilize the areas.
- DDD. The Permittee shall identify borrow areas within the permit boundary sufficient to cover areas disturbed by the mine and mill site to the depth required by this permit. Identification of the borrow areas will be based on the findings of the Borrow Materials Study discussed under Condition BBB.

Wildlife

EEE. If monitoring in accordance with Section 9.T or evaluation of studies pursuant to 9.SS or TT, or future wildlife evaluations or studies required by other state or federal agencies indicate that a change to the closeout plan is required to ensure that the site will be reclaimed to a condition that allows for the re-establishment of a Self-Sustaining Ecosystem, and/or meet the requirements of reclamation defined under §19.10.1.7.R(1) of the New Mexico Mining Act Rules, the Permittee shall request a modification or revision of this permit.

Cover

- FFF. The Permittee shall conduct the storage cover study in accordance with the *Work Plan for Waste Rock Water Balance Study* – (Robertson GeoConsultants Inc., February 29, 2000) and in consultation with MMD. The Permittee shall provide MMD with updated information concerning the results of the study.
- GGG. If the results of the storage cover study indicate that additional or alternative closeout

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actions are necessary to ensure that the site will be reclaimed to a condition that allows for the re-establishment of a Self-Sustaining Ecosystem, and/or meet the requirements of reclamation defined under §19.10.1.7.R(1) of the New Mexico Mining Act Rules, the Permittee shall request a modification or revision to the permit. MMD will review the study to determine if a modification or revision of this permit is required by §19.10.5.504.B and §19.10.5.505.B of the Rules. The Permittee shall use the results to incorporate changes into the permit revision to be submitted by April 30, 2004.

Water Quality

- HHH. The Permittee shall submit to MMD for approval any studies required by NMED that are necessary to meet NMMA requirements such as cover design studies, revegetation studies, stabilization and erosion investigations and any other studies necessary to demonstrate that the permit area will be reclaimed to a condition that allows for the re-establishment of a Self-Sustaining Ecosystem.
- III. If any of these submittals indicate that additional or alternative closeout actions are necessary to ensure that the permit area will be reclaimed to a condition that allows for the re-establishment of a Self-Sustaining Ecosystem, and/or meet the requirements of reclamation defined under §19.10.1.7.R(1) of the Rules, the Permittee shall submit to MMD a request to modify or revise the permit. MMD will review the study to determine if a modification or revision of this permit is required by §19.10.5.504.B and §19.10.5.505.B of the Rules. The Permittee shall use the results to incorporate changes into the permit revision to be submitted by April 30, 2004.

Subsidence Zone

JJJ. The Permittee shall initiate a Subsidence Zone Reclamation Study. The study shall include a work plan for approval by MMD. The work plan shall include a scope of work, list of deliverables, and time frames for the work to be completed. The work plan shall be provided to MMD by June 4, 2002. The Permittee shall provide completed studies to MMD, for approval, addressing the reclamation of the subsidence zone. The completed studies shall be provided by February 28, 2004. The Permittee shall use the results of the study to incorporate changes into the Closeout Plan revision to be submitted by April 30, 2004.

SECTION 10 CONCLUSIONS OF LAW

A. The Director has jurisdiction over the Permittee and the subject matter of this proceeding.

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B. The PRP is complete, accurate, and complies with the requirements for Closeout Plans in the Act and §19.10.5.505, §19.10.5.506, and §19.10.5.507.A of the Rules. The Permittee, Molycorp Inc., is permitted pursuant to the New Mexico Mining Act to conduct mining and reclamation operations at the Questa Mine, Taos County, New Mexico, upon the condition that the Permittee complies with the requirements of the Order, the Act, the Rules, Permit Conditions, and requirements imposed by this Decision.

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CERTIFICATION

I certify that I have personally examined and am familiar with the information submitted herein, and based on my inquiry of those individuals responsible for obtaining the information, I believe the submitted information is true, accurate, and complete.

I certify that I have read, understand and will comply with the requirements of this Permit Revision. I also agree to comply with the performance and reclamation standards and requirements of the permit, the Rules, and the Act, and allow the Director to enter the permit area without delay for the purpose of conducting inspections.

Authorized Representative of the Permittee

Title

Company

Subscribed and sworn to before me this _____ day of _____, 2002

Notary Public

My Commission Expires

_;

ORDER

NOW THEREFORE, IT IS HEREBY ORDERED that Permit Revision 96-2 of the Questa Mine Permit, incorporating the Mine and Mill Closeout Plan and allowing Molycorp Inc. to conduct closeout and reclamation operations in Taos County, New Mexico, is approved.

By Order of the Director, Mining and Minerals Division, Energy, Minerals and Natural Resources Department, of the State of New Mexico.

Douglas M. Bland, Director Mining and Minerals Division Energy, Minerals and Natural Resources Department

DATED:_____

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Appendix A

- 7/23/01 Molycorp Application for Variance (Subsidence Zone) Permit No TA001RE (96-2)
- 2. 10/23/01 Questa Mine Closeout Plan, Version 1.0, URS Project No. 68-00044847.00
- 3. 12/28/01 Molycorp submittal of supplemental information related to the financial assurance evaluation.
- 4. 12/28/01 Letter from Molycorp Re: Change to Plan Submittal of October 26, 2001
- 7. 1/23/02 Molycorp Letter Re: Extension of the Technical Review Committee
- 5. 4/22/02 MMD Letter Re: Determination of Approvable Questa Mine and Mill Closeout Plan Application, TA00RE (96-2)
- 6. 5/24/02 MMD Variance Request Approval
- 7. 5/24/02 MMD Waiver Request Approval

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Appendix B

- 1. Dwg. SE-100, -200, -300 Plant Storm Water Management Plan
- 2. Dwg. 272-5V-31, 9/82 Mill Area
- 3. Dwg. 00-GA-01 & 2, 1/12/81 and 12/12/80 Mill Area Plot Plan
- 4. Dwg. 10-1-01, 4/8/80 General Arrg't Plot Plan, Goat Hill
- 5. Dwg. 900-502C & -535P Tails Dump Sump
- 6. 6/27/94 ENSR Consulting and Engineering *Molycorp Mining Operation Site Assessment*
- 7. 7/9/93 Vail Engineering Report Interim Study of the Acidic Drainage to the Middle Red River, Taos County, NM.
- 8. 12/29/95 Wagner & Harrington Revegetation Report for Molycorp, Inc. Questa Mine Site
- 9. 1/31/96 Closeout Plan for Molycorp, Inc. Questa Mine
- 10. 9/11/98 Attachment 1 updated list of federal and state agency permits related to the Questa Mine
- 11. 4/21/95 SPRI Report Progress Report on the Geology, Hydrogeology and Water Quality of the Mine Area
- 12. 10/16/95 Figure 1, Site Map of Molycorp Questa Mine and Plant Facilities
- 13. 10/16/95 Figure 2, Sheets 1,2,3,4 of 4 Mine and Mill
- 14. 11/28/95 Vail Engineering Report Analysis of Molycorp's Mine facilities Impact on the Hydrologic Balance of Surrounding Area
- 15. 12/2/96 Response to MMD's 10/1/96 request for more information
- 16. 7/31/98 Questa Mine Waste Rock Discharge Plan DP-1055

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- 17. 12/9/98 Questa Mine Waste Rock Discharge Plan Addendum to July 31, 1998 Submittal
- 18. 2/23/99 Molycorp's response to MMD's RFI (12/30/98), concerning issues raised by DGF and NMED in letters dated 12/11/98 and 11/12/98.
- 19. 5/28/99 Response to letter dated 12/30/99 by MMD regarding deficient site assessment information.
- 21. 6/17/99 Response from Molycorp to NMED's April 29, 1999 RFI concerning DP-1055
- 22. 8/31/99 Response from Molycorp to MMD's May 28, 1999 RFI
- 23. 9/17/99 Interim Report: Questa Waste Rock Pile Drilling Instrumentation and Characterization Study. 9/6/99
- 24. 12/3/99 Extension of Time for Closeout Plan Approval Request
- 25. 1/31/00 Work Plan for Comprehensive Water and Load Balance Study Entire Site
- 26. 1/31/00 Work Plan for Background Characterization Study Entire Site
- 27. 12/21/00 Revision of Permit No. TA001RE, Molycorp letter committing to recent permit revision agreements
- 28. 1/21/00 Work Plan for Surface Erosion and Stability Analysis for Mine Site
- 29. 1/31/00 Work Plan for Borrow Materials and Rooting Zone Investigation Mine Site;
- 30. 1/31/00 Work Plan for Vegetation Test Plot Mine Site;
- 31. 1/31/00 Work Plan for Open Pit and Subsidence Area Waiver Information Investigation and Report Mine Site
- 32. 2/29/00 Work Plan for Wildlife Evaluation for Closure Mine Site
- 33. 2/29/00 Work Plan for Waste Rock Water Balance Study Mine Site
- 34. 3/8/00 Red River Aquatic Biological Monitoring 1999, Chadwick Ecological

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Consultants, Inc.

- 35. 3/16/00 Closeout Plan and DP-1055 Report. Progress Report: Questa Waste Rock Pile Monitoring and Characterization Study.
- 36. 3/21/00 Work Plan for Mine Rock and Site Investigation and Testing Program (Task A.1, Phase 2).
- 37. 7/31/2000 Mill Well #1 Pumping Test Report
- 38. 7/31/2000 Mine Area Slug, Pumping and Recovery Tests
- 39. 7/31/2000 Analysis of Acid Rock Drainage in Middle Reach of the Red River
- 40. 7/31/2000 Progress Report: Results of Phase I Physical Waste Rock Characterization
- 41. 10/16/00 Progress Report on Task 1.4 of Background Study Characterization of Surface Water of Non-Mining Scar Affected Watersheds
- 42. 11/14/00 *Mine Site Borrow Materials and Rooting Zone Investigation, Questa Mine Site, New Mexico.* Robertson Geoconsultants, Inc. Report 05008/8
- 43. 11/14/00 *Water Balance Study for Questa Mine, New Mexico,* Robertson Geoconsultants, Inc. Report 052008/9
- 44. 11/28/00 As-Built Report Infiltration Test Plots for Mine Questa Mine, New Mexico, Robertson Geoconsultants, Inc. Report 052008/11
- 45. 12/1/00 Interim Report, Mine Rock Pile Erosion and Stability Evaluation Questa Mine, URS, Project No. 6800044388.00
- 46. 12/18/00 Interim Mine Site Characterization Study, Questa Mine, New Mexico, Robertson Geoconsultants, Inc. Report 052008/10
- 47. 1/11/01 Questa Mine Alternatives Analysis, URS Corporation
- 48 1/11/01 Integrated Geochemical Load Balance for Straight Creek, Sangre de Cristo Mountains, New Mexico, Robertson GeoConsultants Inc., Report No. 052008/13

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- 49. 1/12/01 Background Study Data Report Questa Mine, New Mexico, Robertson GeoConsultants, Report No. 052008/12
- 50. 1/16/01 Initial Soil-Atmosphere Modeling for Mine Rock Piles, Questa Mine, New Mexico, Robertson GeoConsultants, Report No. 052008/14
- 51. 2/22/01 Integrated Geochemical Load Balance for the Mine Site, Questa Mine, New Mexico, RGC Report No. 052008/15;
- 52. 2/22/01 Progress Report on Water Balance Study for Mine Rock Pits, Questa Mine, New Mexico, RGC Report No. 052008/17
- 53. 2/22/01 Erosion Study Questa, New Mexico, RGC Report No. 052014/1.
- 54. 3/19/01 Final Report, Site-Wide Comprehensive Hydrologic Characterization Report, March 2001, URS 68-00044388.00
- 56. 3/20/01 Report, Alternatives Evaluation Report, Mine Rock Piles, Open Pit, and Subsidence Zone, March 20, 2001, URS, 6800044388.00 Molycorp Questa Mine,
- 57. 4/9/01 Updated Interim Report, Mine Rock Pile Erosion and Stability Evaluation, Questa Mine, New Mexico, URS project No. 6800044388.00 Task 00500
- 58. 4/9/01 Revegetation Test Plot Progress Report, Molycorp
- 59. 4/9/01 Molycorp submittal *Red River Aquatic Biological Monitoring 2000*, Chadwick Ecological Consultants, March 2001
- 60. 4/9/01 Molycorp submittal *Updated Interim Report, Mine Rock Pile Erosion and Stability Evaluation, Questa Mine, New Mexico,* URS project No. 6800044388.00 Task 00500
- 61. 6/01/01 Questa Mine Closeout Plan
- 62. 6/18/01 Molycorp submittal *Wildlife Impact Study*, URS Project No. 68-0004388.00
- 63. 6/18/01 Molycorp submittal *Infiltration Test Program*, Robertson GeoConsultants Inc. Report No. 052008/16
- 64. 7/16/01 Molycorp NAG Suitability Criteria

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- 65. 7/18/01 Molycorp Revised Revegetation Plan
- 66. 7/23/01 Molycorp submittal *Revision I, Work Plan for Mine Site Borrow Material and Rooting Zone Investigation*, URS Corp. Project No. 68-00044388.00 01600
- 67. 12/31/02 Questa Mine Bond Amount Calculation, New Mexico Mining and Minerals Division
- 68. 3/29/02 MMD and NMED Agreement Re: Agreement to Distribute Funds and Implement Closure/Closeout activities in the Event of Forfeiture of Financial Assurance Related to Molycorp's Questa Mine, DP-1055, TA001RE
- 69. 3/20/02 Joint Powers Agreement, Contract No. 01-521-06-153, executed between EMNRD and NMED
- 71. 11/3/00 Surety Bond Number 111 417 13245 for \$129,000,000, Fireman's Fund Insurance Company
- 72. 3/29/02 MMD Letter Re: Future Adjustments to Financial Assurance, Questa Mine and Mill TA001RE (96-2)
- 73. 4/16/02 MMD Letter Re: Financial Assurance
- 74. 5/14/02 Letter of Credit Number 5-225502 for \$4,970,073 JP Morgan Chase Bank