STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

In the Matter of:	)	
PROPOSED AMENDMENT TO 20.6.2 NMAC (Copper Rule)	)	No. WQCC 12-01(R)

EXHIBIT SHELLEY – 3

State of New Mexico
ENVIRONMENT DEPARTMENT
Ground Water Quality Bureau
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
(505) 827-2918 phone
(505) 827-2965 fax

BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

February 24, 2003

John A. Fenn, Vice President
New Mexico Operations
Chino Mines Company
210 Cortez Street
Hurley, NM 88043

RE: Supplemental Discharge Permit for Closure, Chino Mines Company, DP-1340
Fee Assessment Reminder

Dear Mr. Fenn:

The New Mexico Environment Department (NMED) issues the enclosed Supplemental Discharge Permit, DP-1340 to Chino Mines Company pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC. DP-1340 modifies previously issued discharge permits DP-213, DP-214, DP-376, DP-459, DP-484, DP-493, DP-526, and DP-591 to address the closure provisions of 20.6.2.3107.A.11 NMAC.

The Supplemental Discharge Permit contains terms and conditions that shall be complied with by Chino Mines Company and are enforceable by NMED pursuant to WQCC 20.6.2.3104, WQA, NMSA 1978 §74-6-5 and §74-6-10. Issuance of this Supplemental Discharge Permit does not relieve Chino Mines Company of its responsibility to comply with the WQA, WQCC Regulations, any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

Pursuant to 20.6.2.3114 NMAC and as indicated in the invoice dated January 11, 2002, the full permit fee of $52,000 is due and payable immediately.

Pursuant to 20.6.2.3109.H.4 NMAC, the term of the Supplemental Discharge Permit shall be five years from the date of issuance and will expire on **February 24, 2008**. You must submit an application for renewal at least 180 days before the permit expiration date.

Sincerely,

Marcy Leavitt, Chief
Ground Water Quality Bureau

ML:MAM/KCM

enc:

1) Supplemental Discharge Permit DP-1340
2) Figure 1. Interbench Slope Graphic
3) Figure 2. Open Pit Capture Zone
4) Exhibit 1. Water Rights Trust Agreement
5) Exhibit B. Water Use agreement
6) Exhibit 2. Cash Flow Summary
7) Exhibit 3. NMED Addendum to Cost Estimate

cc: Mary Ann Menetrey, HPM, MECS
Karen Garcia, Chief, Mine Regulatory Bureau
NMED Silver City Field Office
Ken Smith, Manager, NMED Disctrict 3
Mike Jaworski, SWQB
Joe Brunner, Manager, Environmental Services, Chino Mines Company
Harry Browne, Director, GRIP
Bill Van Dran, Chairman, CEGEP
DP-1340 file

SUPPLEMENTAL DISCHARGE PERMIT FOR CLOSURE
DP-1340
Chino Mines Company
February 24, 2003

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Supplemental Discharge Permit for Closure, DP-1340, (Supplemental Discharge Permit) to Chino Mines Company (Chino) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§ 74-6-1 through 74-6-17 (1993), and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC. The permit contains the closure requirements addressing Chino's discharges of contaminants that may move directly or indirectly into ground water from the Open Pit, Hurley Smelter, Tailing Impoundments, Waste Rock Piles, Leach Ore Stockpiles and associated facilities (the Chino Mines Facility) at its copper mine and mill in Grant and Luna Counties, New Mexico. NMED has previously issued eight individual discharge permits to Chino under the WQA for discharges from the Chino Mines Facility, DP-213, DP-214, DP-376, DP-459, DP-484, DP-493, DP-526 and DP-591 (the Chino Operational Discharge Permits). Those permits contain conditions regulating discharges that may move directly or indirectly into ground water during the operation of the Chino Mines Facility. This Supplemental Discharge Permit contains conditions necessary to prevent the exceedence of standards of Section 20.6.2.3103 NMAC or the presence of a toxic pollutant in ground water during and after the cessation of operations.

NMED's purpose in issuing this Supplemental Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from the Chino Mines Facility into ground and surface water, so as to protect ground and surface water for actual and potential future use as domestic and agricultural water supply and other uses, and to abate pollution of ground water, after Cessation of Operation at the Chino Mines Facility.

The Chino Mines Facility encompasses the following facilities in Grant County, New Mexico:

> ***Northern Area:*** *Open Pit, Leach Ore Stockpiles, Waste Rock Piles, solution extraction-electrowinning (SX/EW) plant, Reservoirs, pumping stations, seepage impoundments, storm water ponds, mill facilities, a maintenance area, a former precipitation plant area, Ground Hog Mine area, Oswaldo Mine Shaft, Star Mine Shaft, and Ivanhoe Concentrator.* The Northern Area contains the primary mining operation at the Chino Mines Facility. The Santa Rita Pit is an active Open Pit mine approximately 1.8 miles in diameter and 0.3 miles deep (from 6,600 to 5,050 feet elevation). It covers approximately 2,560 acres. Approximately 1,800 million tons of rock from the Open Pit have been placed in several Leach Ore Stockpiles and Waste Rock Piles, the South, Upper South, West, North, Northeast, Northwest, North Pit and Lampbright piles, located around and adjacent to the Open Pit. These piles cover over 2,048 acres. The SX/EW plant removes copper and acidifies water to produce raffinate for leaching. The SX/EW plant covers approximately 51 acres. Reservoirs 2, 3A, 4A, 5, 6, 7, 8 and 9, and the PLS (Pregnant

Leach Solution) Tank on the west side of the South Stockpile, are located in the vicinity of the Open Pit and store process solutions before they are piped to leach the Leach Ore Stockpiles or to the SX/EW plant. The pumping capacity at the Reservoirs is augmented by various pumping stations, 6525 booster station, south booster station and P-Plant pump house. The Reservoirs cover approximately 165 acres. Additional Reservoir capacity exists for stormwater and seepage management along the western side of the West Stockpile at catchment dams 10, 11, 12, 13, 14, 14-1, 14-2, 18 and 19. Additional storm water retention and seepage interception occurs near the former precipitation plant at dams 15, 16, 17 and 20. These seepage impoundment and storm water retention Reservoirs cover approximately 8 acres. The maintenance facility area services haulage trucks and other mine equipment and also contains the laboratory, the security office, the geology department, safety department and mine engineering. The primary crusher crushes run-of-mine rock from the Open Pit prior to additional crushing and grinding at the Ivanhoe Concentrator. Finely ground ore enters the Ivanhoe Concentrator where copper and molybdenum are produced through conventional froth flotation circuits. The copper concentrate is piped to the Hurley Smelter for further processing. Molybdenum concentrates are packaged for additional off-site processing. The former precipitation plant area is located adjacent to the mill facility and Ivanhoe Concentrator. The precipitation plant has been removed and the area is primarily used as a storage area. The mill facilities, maintenance area, former precipitation plant area and Ivanhoe Concentrator cover approximately 110 acres. The Groundhog Mine area is located southwest of the Ivanhoe concentrator and includes covered Waste Rock Piles and inactive underground workings. Other inactive underground workings include the Star and Oswaldo #2 mine shafts. The Northern Area of the Chino Mines Facility is located near the towns of Bayard and Hurley in T17S, R12W, Sections 25, 26, 27, 28, 29, 32, 33, 34, 35 and 36; T18S, R12W, Sections 3 and 4.

Pipeline Corridor: *Chino Pipelines*. From the Ivanhoe Concentrator, tailing flows in either the West Train, the East Train or the Spare Train pipelines that run nine miles, partly along Whitewater Creek, from the concentrator to the termination tank located on top of Tailing Pond 4. Process water from the 750,000 gallon tank at the Hurley Smelter follows a similar pipeline route to the Ivanhoe Concentrator. A copper concentrate pipeline also follows this route. The Chino pipelines are east of the towns of Bayard and Hurley in T17S, R12W, Sections 32; T18S, R12W, Sections 5, 6, 7, 18, 19, 30, 31 and 32; T19S, R12W, Sections 5 and 8.

Southern Area: *Hurley Smelter, slag piles, Lake One Area, Chino Tailing Impoundments, Pond 7 seepage interceptor system, Axiflo Lake, James Canyon Reservoir, well fields and Hurley power plant*. The Hurley Smelter utilizes flash smelting technology to oxidize copper concentrates to produce copper anodes. The smelting process also produces slag as a waste product. Slag piles along with the smelter cover

approximately 195 acres. The Lake One Area consists of sediment from Whitewater Creek, tailing and concentrate spillage associated with the former concentrator and tailing thickeners as well as tailing recovered from tailing pipeline spills. The Lake One Area covers 230 acres. Tailing from the Ivanhoe Concentrator is disposed of in Pond 7. The Chino Tailing Ponds comprise eight distinct impoundments including Pond 1, Pond 2, Pond B, Pond C, Pond 4, Pond 6E, Pond 6W and Pond 7. The impoundments contain approximately 690 million tons of tailing and cover approximately 3,500 acres. Tailing Pond 1 also contains an active land farm for remediation of petroleum contaminated soils. The Pond 7 seepage interceptor system is located immediately south of Pond 7 and consists of approximately 20 wells that pump ground water and tailing pond seepage to Pond 7. This water is pumped to the Northern Area through Axiflo Lake and the 750,000 gallon tank, used for process make-up water. Axiflo Lake covers approximately 98 acres. The James Canyon Reservoir is under construction and will ultimately be used for storm water retention and will be used as part of the upper Whitewater Creek Diversion. The James Canyon Reservoir will cover approximately 45 acres. Two high-density polyethylene (HDPE) lined storm water retention ponds are used to control runoff at the Hurley Smelter and Lake One Area. The Bolton well fields pump water as needed to Axiflo Lake. Fresh water is pumped from various well fields (currently the Apache Tejo, McCauley, Whitewater, Warm Springs, Moody, Stark, 2C, Yates and Baker wellfields) south and west of the tailing ponds to Hurley and Santa Rita as required. The Hurley power plant provides a portion of the electrical power for the Chino Mines Facility. The Lake One Area, Chino Tailing Impoundments, Axiflo Lake, James Canyon Reservoir, well fields, Hurley Smelter, slag piles and Hurley power plant are located east and south of the town of Hurley in Grant County: T18S, R12W, Sections 31 and 32; T19S, R12W, Sections 5, 6, 7, 8, 16,17, 18, 19, 20, 21, 28, 29, 30, and 33; T20S, R12W, Sections 4, 9, 16, 21, 22, 27, 34, and 35; T18S, R13W, Sections 12 and 13; and the following locations in Luna County: T21S, R12W, Sections 1, 2, and 12; T21S, R11W, Section 7 and 18.

Quantity, Quality and Flow Characteristics of the Discharge: Some of the leachate from the Northern Area (principally from Leach Ore Stockpiles, Waste Rock Piles, the Open Pit, Reservoirs, SX/EW plant, mill and Ivanhoe Concentrator facilities), the Pipeline Corridor (principally the tailing and process water pipelines), and the Southern Area (principally the Lake One Area, Hurley Smelter, slag piles, Axiflo Lake and Tailing Impoundments) is discharged so it moves directly or indirectly into ground water. Some leachate from the Northern Area, pipelines, Hurley Smelter, slag piles and Southern Area is or may be discharged so that it moves directly or indirectly into ground water. Some of the leachate exceeds health-based water quality standards under the WQCC Regulations at Section 20.6.2.3103.A NMAC for the constituents arsenic, cadmium, chromium, fluoride, lead and selenium; at least some of the leachate exceeds other domestic water supply standards under Section 20.6.2.3103.B NMAC for the constituents copper, iron, manganese, sulfate, total dissolved solids and zinc, and is below the acceptable pH range; and some of the leachate exceeds water standards for irrigation use under Section

20.6.2.3103.C NMAC for the constituents aluminum, cobalt, molybdenum and nickel. Additionally, at least some of the leachate exceeds the maximum contaminant level for beryllium, a health-based primary drinking water standard set by the United States Environmental Protection Agency (EPA) under the federal Safe Drinking Water Act.

Up to several gallons per minute (gpm) of intermittent seeps and ground water is collected in catchment dams 10, 11, 12, 13, 14, 14-1, 14-2, 18 and 19 on the western side of the West Leach Ore Stockpile. The South, West, North, Northeast and Lampbright Leach Ore Stockpiles; SX/EW plant area plus adjacent Reservoirs; the precipitation plant area; Lake One Area and the Tailing Impoundments discharge leachate in a quantity sufficient to cause ground water to exceed standards for some of the contaminants listed above. The amount of leachate generated from the Leach Ore Stockpiles and Waste Rock Piles, the Hurley Smelter, slag piles, inactive tailing ponds and Lake One Area has not been precisely quantified. The Open Pit currently collects approximately 660 gpm of direct precipitation, seepage and ground water inflow from the North Waste Rock Pile, Reservoir 3A and possibly Reservoir 9, as well as other surrounding areas. The Tailing Pond 7 seepage interceptor system captures ground water mixed with tailing pond leachate at a current flow rate of approximately 1,500 gpm.

Characteristics of Ground Water: In the Southern Area, the depth to ground water ranges from approximately 1 to more than 150 feet below ground surface, and total dissolved solids (TDS) concentrations range from 300 to 1,400 milligrams per liter (mg/l). In the Northern Area, the depth to ground water ranges from 0 to 250 feet below ground surface, and TDS concentrations range from 500 to 1,500 mg/l. Ground water background concentrations may exceed water quality standards under the WQCC Regulations for some constituents in some areas of the mine, although NMED has not yet made any background determinations.

Chino Operational Discharge Permits approved for the Chino Mines Facility include the Ivanhoe Concentrator and associated pipelines (DP-213); Hurley Smelter, Tailing Pond 1, Pond 2, Pond B, Pond C, Pond 4, Pond 6E, Pond 6W, Lake One, Axiflo Lake and Lower Whitewater Creek (DP-214); Lampbright Leach Ore and Waste Rock Stockpiles (DP-376); Tailing Pond 7 (DP-484); Open Pit, Reservoir 5 and North Pit Leach, North, Northwest, Northeast Waste Rock Stockpile (DP-459); Reservoir 3A (DP-493); Whitewater Leach Ore Stockpiles that include the West and South Leach Ore Stockpiles (DP-526) and Chino Solution Extraction/Electrowinning Plant and Reservoirs 6 and 7 (DP-591). These facilities contain other facilities not specifically mentioned such as pipelines, Reservoirs, buildings and roads, and which are covered by these discharge permits.

Unconstructed facilities or portions of facilities which are not yet incorporated into Chino Discharge Permits for operations may be incorporated into this Supplemental Discharge Permit in the form of amendments or modifications.

Activities That Produce the Discharge

Copper open pit mining operations began in 1910 at the Santa Rita Pit. In 1911, a mill and concentrator were constructed near the current Hurley Smelter site. Arriving by rail from the Santa Rita Pit, higher grade ore was processed by crushing the ore at the mill and using flotation at the concentrator to recover copper concentrate. Waste Rock and lower grade ore was stockpiled near the Open Pit, and tailing from the concentrator was deposited east and south of Hurley in tailing ponds along Whitewater Creek. In 1936, Chino started leaching the low-grade ore stockpiles near the Open Pit. Copper was extracted from the resulting leach solutions at the precipitation plants, where iron was used to cause the precipitation of copper. Construction of the Hurley Smelter was completed in 1939. In mid-1982 the Hurley mill and concentrator were replaced by construction of a new mill and concentrator called the Ivanhoe Concentrator. The SX/EW plant was constructed in 1988.

The Chino Waste Rock Piles, Leach Ore Stockpiles, Tailing Impoundments and the Open Pit all contain sulfides which, when oxidized and exposed to water, generate sulfuric acid. This acid then leaches contaminants from the rock, including heavy metals and sulfate, forming what is known as acid rock drainage or acid rock leachate. This leachate may move directly or indirectly into ground water.

As part of the current mining operation, rock in the Open Pit is fragmented using conventional drilling and blasting techniques, loaded in haul trucks and delivered to the following locations:

> Overburden and waste rock are placed in Waste Rock Piles in several locations around the Open Pit including the west side of the West Stockpile, Northwest Stockpile and the Upper South Stockpile.
>
> Low-grade leach ore is stockpiled on the Leach Ore Stockpiles on the north and south side of the Open Pit.
>
> High-grade leach ore is stockpiled primarily on the Lampbright Stockpile, South Stockpile and the east side of the West Stockpile.

Up to 43,200,000 gallons per day (gpd) of acidified leach solution (raffinate) is discharged to the top and side slopes of the Leach Ore Stockpiles (South, West, North, North Pit, Northeast and Lampbright Stockpiles) and is collected as pregnant leach solution (PLS) at specific collection points at the stockpile toes as well as the Open Pit. The Leach Ore Stockpiles are unlined and some PLS moves directly or indirectly to ground water. Based upon Chino estimates, the Open Pit receives 660 gpm of ground water inflow, seepage from Waste Rock Piles, Leach Ore Stockpiles and Reservoirs, and from direct precipitation.

PLS is pumped to the SX/EW plant for copper removal. Raffinate is stored at the SX/EW plant in a 900,000 gallon above ground stainless steel tank, where its pH may be adjusted with sulfuric acid before discharging to Leach Ore Stockpiles. The stainless steel tank is located adjacent to a 2.3 million gallon lined pond, which provides secondary and emergency containment of solutions. The entire volume of process solutions contained within the Leach Ore Stockpiles, pipelines and Reservoirs is estimated to be approximately one to two billion gallons.

When the Ivanhoe Concentrator is in operation, sulfide ore is delivered to the Ivanhoe Concentrator adjacent to the Open Pit. The ore is crushed and mixed with water, and copper and molybdenum concentrates are produced via conventional froth flotation processes. The concentrator also produces a thickened tailing slurry with an average solids content of approximately 48 percent solids by weight that is conducted by pipeline from the Ivanhoe Concentrator to a distribution tank located approximately nine miles to the south at the Chino Tailing Impoundments through three urethane-lined steel pipelines (East Train, West Train and Spare Train). From the distribution tank the slurry is conducted to the surface of the Tailing Impoundments where the slurry is distributed, allowing the solids to settle. The decanted water from the Tailing Impoundment is pumped to the concentrator for reuse. Based on 60,000 tons per day annual average of ore processed and 48 percent solids content in the tailing, the amount of water discharged to Tailing Pond 7 (Pond 7) is approximately 15,600,000 gpd. The Tailing Impoundments are unlined and some water moves from the Tailing Impoundments directly or indirectly into ground water.

Approximately 1,000,000 gpd of domestic wastewater from the communities of Bayard, Fort Bayard, Santa Clara and Vanadium to 9,900 gpd of domestic wastewater from the Hurley sewage system are commingled with the tailing and disposed of in Tailing Pond 7. Disposal of sewage effluent may be phased out over the next few years. Process waters from the Hurley Smelter are managed to remove and recycle metals, treated with lime, and then discharged to Tailing Pond 7.

Portions of the inactive tailing ponds include Pond 1, Pond 2, Pond B, Pond C, Pond 4, Pond 6E and Pond 6W. Pond 1, Pond 2, Pond B and Pond C have been covered with an interim dust cover, which is a few inches to several feet thick. Pond 4, Pond 6E and Pond 6W are permitted to be used for the emergency discharge of tailing. During concentrator operation an estimated 5,400 gpm of decanted process water from Pond 7 and 3,000 gpm of fresh make-up water from wells are stored in Axiflo Lake prior to pumping to the concentrator. South of Pond 7, the Pond 7 Seepage Interceptor System pumps approximately 1,500 gpm of ground water to the Pond 7 decant area, where the water is pumped up to Axiflo Lake. This water exceeds water quality standards under the WQCC Regulations at Section 20.6.2.3103 NMAC for TDS and sulfate. The water in Axiflo Lake contains TDS concentrations of approximately 1,470 mg/l and sulfate concentrations of approximately 924 mg/l at a pH of 7.0.

The EPA has issued Chino a permit, Permit # NM0020435, under the National Pollutant

Discharge Elimination System (NPDES) for discharges to surface water. Chino is currently discharging pursuant to the terms of that permit. Chino continues to be regulated under NPDES permit limitations and has filed an application for coverage under a multi-sector general storm water NPDES permit.

This Supplemental Discharge Permit incorporates a closure plan that includes a schedule and specific requirements for the following closure activities: closure of the Chino Tailing Impoundments; closure of Axiflo Lake; closure of the Lake One Area; closure of the Hurley Smelter and slag piles; closure of the Santa Rita Open Pit, closure of the Waste Rock Piles and Leach Ore Stockpiles; closure of associated facilities such as pipelines, buildings and Reservoirs; post-closure monitoring and maintenance; test plots and other additional studies; a contingency plan; abatement of ground water contamination; and a financial assurance plan.

This Supplemental Discharge Permit shall be managed in accordance with the terms, requirements, and conditions of the Chino Operational Discharge Permits and is subject to the conditions listed in Section III of this Permit.

This Supplemental Discharge Permit incorporates Sections 2, 3, 4, 5 and 6 of the Chino CCP – March 2001, herein as enforceable under the terms of this Supplemental Discharge Permit. In the event that there is a conflict or difference between the Supplemental Discharge Permit and Sections 2, 3, 4, 5 and 6 of the Chino CCP - March 2001, the terms and conditions of this Supplemental Discharge Permit shall control.

Approval of this Supplemental Discharge Permit does not relieve Chino Mines Company of its responsibility to comply with all conditions and requirements of the Chino Operational Discharge Permits, WQA, WQCC Regulations, and any other applicable federal, state and local laws and regulations. If any inconsistency exists between this Supplemental Discharge Permit and any of the Chino Operational Discharge Permits, this Supplemental Discharge Permit shall control.

II. DEFINITIONS

Whenever any terms defined in the WQA or the WQCC Regulations, 20.6.2 NMAC, are used in this Supplemental Discharge Permit, including any documents incorporated herein by reference, those definitions shall apply. In addition, whenever the terms listed below are used in this Supplemental Discharge Permit, including any documents incorporated herein by reference, the following definitions shall apply:

"Axiflo Lake" means the body of water located on the Chino Mines Facility east of Pond B, south of Pond 2, and north of Pond 4.

"Certification of Closure" means a determination by NMED that all closure conditions have been met in the Supplemental Discharge Permit, including its amendments and modifications for the portion of the Chino Mines Facility specified in the certification. This certification marks the end of the closure period and the start of the post-closure period.

"Cessation of Operation" means any cessation of operation that is not part of normal operations of the Chino Mines Facility and includes without limitation shut down of all facility operations, cessation of permitted discharges from the tailing pipeline to an individual Tailing Impoundment, cessation of mining in the Open Pit, cessation of waste rock deposition to an individual Waste Rock Pile or cessation of leaching operations at an individual Leach Ore Stockpile.

"Chino" means Chino Mines Company, a general partnership in which a two-thirds interest is held by Phelps Dodge Chino Inc., a subsidiary of Phelps Dodge Corporation. Heisei Minerals Corporation (Heisei), a subsidiary of Mitsubishi Materials Corporation and Mitsubishi Corporation, owns the remaining one-third interest in Chino. Phelps Dodge Chino, Inc. is organized under the laws of Delaware and is doing business in New Mexico.

"Chino CCP - March 2001" means the Chino Mines Facility Closure/Closeout Plan submitted to NMED in March 2001.

"Chino Operational Discharge Permits" means the discharge permits issued by NMED under the WQA in effect for the Chino Mines Facility (DP-213, DP-214, DP-376, DP-459, DP-484, DP-493, DP-526 and DP-591).

"Chino Mines Facility" means the mine, mill and smelter facility owned and operated by Chino Mines Company located near the towns of Hanover, Bayard and Hurley in Grant County and Luna County, New Mexico and all surrounding property over which Chino has an ownership interest or a leasehold interest. It includes the Northern Area, the Chino Pipeline Corridor, the Hurley Smelter and the Southern Area.

"Chino Tailing Disposal Facility" means all facilities associated with transport and disposal of mill tailing from the Northern Area, including the tailing pipelines and associated sumps, and Tailing Impoundments.

"Closed Area" means any individual portion of the Chino Mines Facility with an NMED approved Certification of Closure.

"Discharge" means any spilling, leaking, pumping, pouring, emitting, emptying, or dumping into water or in a location and manner where there is a reasonable probability that the discharged substance will directly or indirectly reach surface or ground water.

"Effective Date" means the date a Final Order approving this Supplemental Discharge Permit is signed by the Secretary of NMED or his delegatee and this Supplemental Discharge Permit is issued.

"Final Order" means that Final Order from the Secretary of NMED or his delegatee approving this Supplemental Discharge Permit.

"Highway" means any public road operated and maintained by the city, county, state or federal government.

"Hurley Smelter" means the smelter, slag piles and ancillary facilities located near the town of Hurley in Grant County, New Mexico, which is part of the Chino Mines Facility.

"Interbench Slope" means the outslope ground surface between terrace benches or between a terrace bench and any engineered conveyance system (i.e. to divert runoff) as described in Figure 1.

"Lake One Area" means the tailing, sediments and other material south of the Hurley Smelter and slag piles and north of Pond 1 within the channel of the historic Whitewater Creek. This area includes the former or decommissioned concentrator and thickener.

"Leach Ore Stockpile" means all leach ore stockpiles and other rock piles associated with mining disturbances at the Chino Mines Facility that have been leached, are currently being leached or have been placed in a pile for the purpose of being leached. These include the South, West, Northeast, North Pit and Lampbright Leach Ore Stockpiles.

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

"Northern Area" means all of the Chino Mines Facility north and east of Bayard which includes but is not limited to the Open Pit, Leach Ore Stockpiles, Waste Rock Piles, SX/EW plant, Reservoirs, pumping stations, seepage impoundments, storm water detention ponds, mill facilities, maintenance area, former precipitation plant area, Groundhog Mine area, Oswaldo #2 Mine Shaft, Star Mine Shaft, and Ivanhoe Concentrator, owned and operated by Chino Mines Company located near the town of Hanover in Grant County, New Mexico and all surrounding property over which Chino has an ownership interest or a leasehold interest. See Chino Mines Facility Map (Fig. 1).

"Open Pit" means the Santa Rita Pit in the Northern Area from which the ore and waste rock were exposed and removed by surface mining and removal of waste rock.

"Open Pit Capture Zone" means the area in which ground water beneath the Northern Area would migrate towards the Open Pit.

"Outslope" means the sloped portions of material around the perimeter of Waste Rock Piles, Leach Ore Stockpiles and Tailing Impoundments.

"Pipeline Corridor" means all of the Chino Mines Facility south and east of Bayard and north and east of Hurley, which includes the concentrate, tailing and process water pipelines, the associated spill containment structures, the pipeline subgrade and access roads. See Chino Mines Facility Map (Fig. 1).

"Pond 7 Seepage Interceptor System" means a system of pumping wells that extract tailing pond seepage and ground water south of Tailing Pond 7.

"Reservoirs" means all surface impoundments used for storm water control, process water make-up, seepage collection, emergency water management and PLS collection. Reservoirs include, but are not limited to, Axiflo Lake; Reservoirs 2, 3A, 4A, 5, 6, 7, 8, 9; the PLS pond and tank at the SX/EW; and the PLS tank on the west side of South Stockpile.

"Slope angle" means the horizontal run divided by the vertical rise, measured along the steepest gradient of the interbench slope's physical surface (i.e. a 2.5:1 slope refers to 2.5 horizontal and 1 vertical).

"Southern Area" means all of the Chino Mines Facility south and east of Hurley, which includes but is not limited to the Lake One Area, Chino Tailing Impoundments, Pond 7 Seepage Interceptor System, Axiflo Lake, James Canyon Reservoir, well fields and Hurley power plant, owned and operated by Chino Mines Company located near the town of Hurley in Grant County and Luna County, New Mexico and all surrounding property over which Chino has an ownership interest or a leasehold interest.

"Supplemental Discharge Permit" means this Supplemental Discharge Permit for Closure, DP-1340, for the Chino Mines Facility.

"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 WQA (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.

"Tailing Impoundments" means the tailing impoundments owned and operated by Chino located near the town of Hurley in Grant County, New Mexico, which are part of the Chino Mines Facility. Tailing Impoundments include Pond 1, Pond 2, Pond B, Pond C, Pond 4, Pond 6E, Pond 6W and Pond 7.

"Upper Whitewater Creek Diversion" means a surface water diversion southeast of the Hurley Smelter and Lake One Areas that includes the James Canyon Reservoir.

"Waste Rock Pile" means all non-leach material from the Open Pit, exclusive of material sent to the mill. These include the Upper South, Southwest Lampbright, Northwest and the North piles.

"WQA" means the New Mexico Water Quality Act, NMSA 1978, §§ 74-6-1 through 74-6-17, and any amendments thereto.

"WQCC" means the Water Quality Control Commission.

"WQCC Regulations" means Title 20 Chapter 6, Parts 1 and 2 NMAC, and any amendments thereto.

III. CONDITIONS

Chino shall comply with Conditions 1 through 119 of this Supplemental Discharge Permit in order to comply with the WQA and the WQCC Regulations. The terms and conditions of this Supplemental Discharge Permit are enforceable by NMED.

Updated Closure Plan

1. At least 180 days prior to the expiration date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval an updated closure plan including an implementation schedule that is based on existing information and additional information available from any of the studies required by Conditions 80 through 93. If additional information gathered pursuant to any of the studies required by Conditions 80 through 93 indicates that a modification or amendment to this Supplemental Discharge Permit is necessary, then the closure plan update shall include a request for modification or amendment. The procedures of Sections 20.6.2.3000 through 3114 NMAC shall apply to such request. This condition does not supersede Section 20.6.2.3109 NMAC.

Closure Plan Term

2. The closure plan for the Chino Mines Facility shall remain in effect under this permit and approved renewals until closure is complete and the Secretary of NMED has released Chino from further closure and post-closure obligations. The closure plan shall incorporate any approved updates as amendments or modifications to this Supplemental Discharge Permit. Chino shall begin implementation of all or part of the closure plan if the permitted facility closes for any reason, including closure due to bankruptcy or abandonment, as described by Conditions 69 through 71. The components of the closure plan are outlined below.

Surface Shaping and Stormwater Management

Waste Rock Piles and Leach Ore Stockpiles

3. Conditions 3 through 8 of this Supplemental Discharge Permit provide for interim closure requirements for the Waste Rock Piles and Leach Ore Stockpiles pending completion of the studies required by Conditions 80 through 93. Final closure measures will be determined based upon the results of the NMED approved studies. As a basis to calculate a cost estimate and to provide financial assurance and in the event of Cessation of Operations, Chino shall close the Waste Rock Piles and Leach Ore Stockpiles in accordance with this Supplemental Discharge Permit and in a manner that results in positive drainage and eliminates, to the maximum extent practicable, ponding on the final cover top surfaces of Waste Rock Pile and Leach Ore Stockpile. The top surfaces shall be constructed to a final grade of 0.5% to 5% to direct stormwater to outslope drainage channels. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

4. Chino shall regrade all Waste Rock Pile and Leach Ore Stockpile outslopes located outside of the Open Pit Capture Zone as depicted in Figure 2, modified from Figure 3.5.2 N Potentiometric Surface Map North Area in the Phase III Comprehensive Groundwater Characterization Study (CGCS) Phase III Report submitted on January 1999 by Golder Associates, to facilitate covering and revegetation of the outslopes. The present area of the Open Pit Capture Zone will be refined based on the study required by Condition 83.

5. Chino shall regrade the portions of the Waste Rock Piles and Leach Ore Stockpiles required by Condition 4 to interbench slopes of no steeper than 2.5:1 with the exception of the west side of the West Waste Rock Pile. Chino shall regrade the west side of the West Waste Rock Pile to interbench slopes of no steeper than 2:1. Regrading and any relocation shall include run-on control and positive drainage of all Waste Rock Piles and

Leach Ore Stockpiles.

6. On the Waste Rock Pile and Leach Ore Stockpile outslopes that are regraded as required by Conditions 3 and 4, terrace benching on 2.0:1, 2.5:1 and 3.0:1 slopes shall be constructed at slope lengths of no greater than 120 feet, 175 feet, and 300 feet, respectively. Terrace benches shall be a maximum of 50 feet wide, inclined 1% to 5% towards the outslope face and have a longitudinal slope of no greater than 5%. Terrace benches shall include outslope channels at the intersection of benches and outslope faces to convey stormwater collected on the Waste Rock Pile and Leach Ore Stockpile outslopes to detention ponds or outlet channels located at the outslope toes or beyond. Surface water diversion ditches shall be constructed between terrace benches to convey stormwater off the outslope surfaces to the outslope channels. The maximum continuous slope length of covered outslopes between benching, outslope crest, outslope toe, surface water diversion ditches, divots, or any other slope break feature shall not exceed 200 feet. All surface water diversion ditches and outslope channels shall be lined with riprap or suitable construction materials approved by NMED. Alternate regrading and stormwater management provisions may be approved by NMED upon demonstration by Chino that they will result in an erosion rate of no greater than 4 tons/acre/year based on generally accepted erosion measurement techniques. Chino shall submit to NMED for approval, a best management practices (BMP) plan 180 days before implementation of construction activities. The BMP plan shall detail the best management practices that will be employed to address erosion, slope length and water management and to ensure that regrading occurs in a manner that meets the requirements of the WQA and the WQCC Regulations and this Supplemental Discharge Permit. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

7. At least 30 days prior to placement of a final cover on regraded outslopes and surfaces of each Waste Rock Pile and Leach Ore Stockpile, Chino shall submit to NMED for approval engineering design drawings, a pre-covering survey report and topographic maps of uncovered Waste Rock Piles and Leach Ore Stockpiles. The contour intervals of the topographic maps shall be no greater than two feet for the top surfaces and shall document positive drainage on the Waste Rock Pile and Leach Ore Stockpile surfaces. The contour intervals of the topographic maps shall be no greater than ten feet for the outslopes.

8. At least 180 days prior to construction, Chino shall submit for NMED approval detailed engineering designs for stormwater management structures and associated conveyance systems. Design specifications for stormwater management structures shall be included with the Construction Design and Quality Assurance (CDQA) plan required by Condition 18. As-built drawings for stormwater management structures shall be included with the CDQA report required by Condition 18.

Tailing Impoundments

9. Chino shall close the Tailing Impoundments in a manner that results in positive drainage and eliminates, to the maximum extent practicable, ponding on the Tailing Impoundment surfaces and the final cover surfaces, and ensures that the requirements of the WQA and the WQCC Regulations are met.. The top surfaces shall be constructed to a final grade of 0.5% to 5% to provide positive drainage and direct water to the designated spillways and drainage channels as proposed in the Chino CCP - March 2001. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

10. Chino shall regrade all Tailing Impoundment outslopes to an interbench slope of no steeper than 3:1. Chino shall construct vee ditches with riprap and down pipes to divert water off the outslopes every 100 feet. Chino shall construct stilling basins at the toes of the Tailing Impoundments to dissipate the energy of water from the spillway drop and connecting channels that deliver the vee ditch waters. Chino shall submit to NMED for approval, a BMP plan 180 days before implementation of construction activities. The BMP plan shall describe the best management practices that will be employed to address erosion, including appropriate slope length and water management systems. As-built drawings for stormwater management shall be included with the CDQA report required by Condition 18. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

11. At least 30 days prior to the placement of a final cover on any Tailing Impoundment, Chino shall submit to NMED for approval, design specifications, cover material specifications, a pre-covering survey report, and final topographic maps of the uncovered surfaces with the CDQA plan required by Condition 18 and an evaluation of the Tailing Impoundment settling. The contour intervals of the topographic maps shall be no greater than two feet for the top surfaces and shall document positive drainage on the tailing surfaces. The contour intervals of the topographic maps shall be no greater than ten feet for the outslopes. The tailing settling evaluation shall describe settling characteristics of the tailing and monitoring methods utilized.

12. At least 180 days prior to construction, Chino shall submit to NMED for approval detailed engineering designs for stormwater management structures for the Tailing Impoundments as part of the CDQA plan required by Condition 18. The stormwater management plan shall be as proposed by Chino in the Tailing Pond Surface Water Study, submitted as part of the Chino CCP - March 2001 unless amended by Chino and approved by NMED, and include discharge of surface runoff to conveyance systems on the Tailing Impoundment surfaces. All stormwater management structures shall be

designed and constructed so as to remove incident precipitation without damaging the cover.

General

13. Chino shall manage stormwater runoff in a manner that prevents runoff from entering the Open Pit to the maximum extent practicable. Within 180 days before implementation of construction activities at any portion of Chino Mines Facility, Chino shall submit to NMED for approval a Stormwater Management Plan for closure of the Northern Area. The Stormwater Management Plan shall be submitted as part of the BMP plan required by Conditions 6 and 10. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

14. Chino shall manage storm generated runoff, intercepted ground water and diversion ditch water from the Tailing Impoundments, Waste Rock Piles or Leach Ore Stockpiles, through the approved water treatment system unless the water meets all applicable surface water and ground water standards in accordance with 20.6.2 NMAC.

Cover Placement Plan

15. Chino shall cover the top surfaces and outslopes of all Tailing Impoundments, and all Waste Rock Piles and Leach Ore Stockpiles with the exclusion of designated Waste Rock Piles and Leach Ore Stockpile outslopes that are within the Open Pit Capture Zone required by Condition 4. The covers shall consist of non-acid generating materials capable of supporting plant growth. The covers shall be designed as a water store and release cover as outlined in Conditions 16 and 17 in order to reduce, to the maximum extent practicable, infiltration of precipitation into underlying tailing and stockpile materials and subsequent discharge of leachate into ground water and surface water. The performance of the covers as provided in the preceding sentence shall be evaluated as provided in Condition 93. The covers shall provide for physical stabilization and revegetation. Amendments shall be applied as necessary for successful revegetation in consultation with MMD and to prevent upward migration of contaminants from Tailing Impoundments, Waste Rock Piles or Leach Ore Stockpiles into cover materials based on the findings of the study required in Condition 82. Final cover placement shall begin as soon as practicable after surface shaping activities are complete for each of the Tailing Impoundments, Waste Rock Piles and Leach Ore Stockpiles regardless of the operational status of any other portion of the Chino Mines Facility. Final cover placement shall be completed as soon as practicable but no later than 1 year after completion of surface shaping activities at any Tailing Impoundment, Waste Rock Pile or Leach Ore Stockpile. The one year deadline for cover placement may be extended by NMED for good cause shown. Design specifications contained in this condition may be modified during final

engineering design with NMED approval.

16. Covers placed on Waste Rock Piles and Leach Ore Stockpiles shall consist of a minimum of 36 inches of volcanic rock (such as Kneeling Nun Rhyolite Tuff or Sugarlump Tuff formations). The coarse fragment content of the cover material shall not exceed 50 percent coarse fragments in the upper 12 inches. The final cover system shall be approved by NMED and shall be constructed consistent with the CDQA plan required by Condition 18. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

17. Chino shall cover all Tailing Impoundments with a minimum of 24 inches of alluvium (such as the Gila Conglomerate formation). The coarse fragment content of the cover material shall be not exceed 50 percent coarse fragments greater than 2 millimeters in the upper 12 inches. The final cover system shall be approved by NMED and shall be constructed consistent with the CDQA plan required by Condition 18. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

18. At least 180 days prior to placement of any cover material over each of the Tailing Impoundments, Waste Rock Piles, Leach Ore Stockpiles and any other area where cover is required for final closure, Chino shall submit a CDQA plan to NMED for approval. Within 180 days of project completion, Chino shall submit a final CDQA report to NMED. The CDQA report shall include, at a minimum, as-built drawings, a final topographic map with no greater than two foot contour intervals for the top surfaces and no greater than ten feet for the outslopes, a summary of work conducted, construction photographs, the location of borrow areas, soil testing results, and laboratory analytical reports.

Revegetation Plan

19. Chino shall revegetate the Tailing Impoundments, Waste Rock Piles, Leach Ore Stockpiles and other areas where cover placement is required as part of site closure to: 1) optimize the ability of the water storage and release cover to reduce infiltration into underlying materials, and 2) promote evapotranspiration from the cover system and provide cover stability and protection from wind and water erosion. Site revegetation shall incorporate seeding methods, revegetation standards and seed mixes approved by MMD to meet New Mexico Mining Act (NMMA) requirements and the findings of studies conducted pursuant to Condition 82. Chino shall submit to NMED any submittals approved by MMD associated with site revegetation. Revegetation activities shall be completed as soon as practicable following the final cover placement at each of the Tailing Impoundments, Waste Rock Piles and Leach Ore Stockpiles, but in conjunction

with the growing season to provide the best opportunity for successful revegetation.

Open Pit and Reservoirs

20. Chino shall minimize the presence of water, to the maximum extent practicable, from the Open Pit by pumping after closure. At least 180 days prior to the initiation of pumping and water treatment, Chino shall provide to NMED for approval a standard operating plan for the open pit pumping and water treatment system, including a contingency plan for dealing with unplanned system outages. In the event of a disruption of open pit pumping and water treatment not described in the standard operating plan, Chino shall notify NMED within 24 hours. Chino shall ensure that any body of water remaining in the Open Pit that is not part of the treatment system meets any applicable surface water quality standards pursuant to the State of New Mexico Standards for Interstate and Intrastate Surface Waters in 20.6.4 NMAC.

21. Chino shall close all Reservoirs and impoundments identified in the study required by Condition 91. Reservoirs and other impoundments shall be closed in a manner that ensures that the requirements of the WQA and the WQCC Regulations and that the conditions of this Supplemental Discharge Permit are met. Closure activities shall include draining the Reservoirs, lakes, sumps or any other type of impoundment; characterization and abatement of sediments that may impact ground water quality and characterization of ground water to determine if abatement is necessary. Unless needed during closure and post closure for stormwater retention or seepage interception, post-closure water management and treatment, or unless otherwise approved by NMED, excluding above ground tanks, Reservoirs and other impoundments shall be closed in a manner that creates positive drainage away from the impoundments, which may include backfilling. Where the characterization results show materials remaining within or beneath any Reservoir or other impoundment to be a source or potential source of ground water contamination, the Reservoir or other impoundment, excluding above ground tanks shall be covered and revegetated consistent with Conditions 15 through 19. Final cover placement shall be completed as soon as practicable but no later than one year after completion of construction activities necessary to provide positive drainage. Design specifications contained in this condition may be modified during final engineering design with NMED approval.

22. Chino shall install fencing or other measures to prevent entry by wildlife and unauthorized humans to the Open Pit, Reservoirs, lakes, sumps or any other type of impoundment that contains water that may be harmful or toxic to the maximum extent practicable. Access restriction measures contained in this condition may be modified during final engineering design with NMED approval.

Lake One Area

23. As an interim closure plan, for financial assurance purposes and within 90 days of the Effective Date of this Supplemental Discharge Permit, Chino shall estimate the costs to implement a Lake One reclamation plan that includes: A) cover and revegetation consistent with the other tailing impoundments; B) an up-gradient ground water barrier such as a cutoff trench with a pumping system; C) a ground water pumping system directly down gradient of the Lake One Area; and D) a water treatment plant near the Hurley Smelter to treat contaminated water collected from the management systems described in B and C above. Chino shall revegetate the cover consistent with the plan required by Conditions 15 through 19. The final closure plan is subject to the requirements of Condition 90. Chino shall submit for NMED approval at least 180 days prior to construction detailed engineering designs for the Lake One Area reclamation plan. As-built drawings and final design specifications for surface grading and cover placement shall be included with the CDQA report required by Condition 18.

Building and Cleanup Plan

24. Any buildings necessary for post-closure treatment and disposal of ground water or surface water shall remain in place and be maintained until NMED concurs that use of the building is no longer required. Chino shall abate contaminated soils that are potential source areas for ground water contamination in accordance with Sections 20.6.2.1203, 20.6.2.3109.E.1 and 20.6.2.4103 NMAC, as approved by NMED, in and around all of the buildings and facilities that will remain in place.

25. Chino shall abate contaminated soils that are potential source areas for ground water contamination in accordance with Sections 20.6.2.1203, 20.6.2.3109.E.1 and 20.6.2.4103 NMAC, as approved by NMED, in and around all buildings and facilities, approved by MMD to be left for an industrial post mining land use.

26. Chino shall submit a building removal plan to NMED for approval at least 60 days prior to any building removal or demolition. The building removal plan shall address any potential discharges of leachate that could cause an exceedances of applicable ground water standards, including soils that are potential source areas for ground water contamination and 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. Building demolition shall be performed as approved by MMD to meet NMMA requirements.

27. Chino shall remove, sell, use, manage or dispose of all reagents, explosives and other hazardous chemicals according to applicable state and federal laws.

28. Chino shall seal or implement other NMED approved management practices at the Groundhog, Oswaldo 2, and Star Shafts in order to minimize underground conduits for contaminated water and to prevent disposal of future wastes unless otherwise approved by NMED. Within 180 days of Cessation of Operation of the Chino Mines Facility, Chino shall submit to NMED for approval a schedule for completion of this condition.

Pipeline Removal

29. Chino shall remove and properly dispose of the tailing, process water and concentrate pipelines located in the pipeline corridor, and PLS and raffinate pipelines as soon as they are no longer needed for site operations, water treatment, or other post-closure water management, unless Chino demonstrates that leaving the pipelines in place will not result in exceedences of the standards of 20.6.1 NMAC and Section 20.6.2.3103 NMAC and NMED approves of salvage or plugging and burial of the pipelines. Any residual tailing, sediments or contaminated water shall be removed from the above-referenced pipelines prior to closure. At least 180 days prior to scheduled removal activities, Chino shall submit a pipeline closure work plan to NMED for approval outlining specific closure procedures for pipelines designed to contain tailing, process water, concentrate, PLS and raffinate. Prior to pipeline removal Chino shall triple rinse all pipelines except the nitrogen pipeline to ensure removal of all potential contaminants contained in the pipelines. During pipeline removal, Chino shall inspect the entire pipeline area for any evidence of past spills and characterize the impacts and potential impacts of any such spills. Chino shall document all areas where there is evidence of spills and propose to NMED appropriate corrective actions pursuant to the provisions of Section 20.6.2.1203 NMAC. Corrective actions shall include an evaluation of cleanup alternatives. Following pipeline removal, Chino shall remove all soil and tailing associated with the pipeline bedding that was constructed of acid generating tailing unless Chino makes the demonstration that the applicable surface water and ground water standards will be met pursuant to 20.6.1 and 20.6.2 NMAC.

Abatement of Ground Water Contamination

30. Chino shall continue to operate existing ground water contamination interceptor and abatement systems in accordance with this Supplemental Discharge Permit after Cessation of Operation as needed to protect ground water and surface water quality. These systems must be operated until monitoring indicates that ground water standards have been achieved and maintained for two consecutive years. Any changes to these systems must be proposed to and approved by NMED prior to the change being implemented. All abatement plan submittals shall be submitted pursuant to the appropriate Operational Discharge Permit(s) or to this Supplemental Discharge Permit, as

approved by NMED. NMED may require these systems to be expanded based on the results of ongoing ground water sampling or future investigations as necessary to ensure that the requirements of the WQA and the WQCC Regulations are met.

31. Chino shall collect, treat and properly dispose of all Leach Ore Stockpile, Waste Rock Pile and Tailing Impoundment leachate and ground water, water pumped from the underground mine workings and collected stormwater from the Chino Mines Facility, if such leachate or water exceeds the standards set forth in Section 20.6.2.3103 or 20.6.2.4103 NMAC or contains a toxic pollutant as defined in Section 20.6.2.1101 NMAC. Collection, treatment and disposal shall be done in accordance with Sections 20.6.2.3000 through 3114 and 4000 through 4115 NMAC. The leachate and water shall be collected in synthetically lined impoundments that are approved by NMED, or alternatively, Chino shall make a demonstration of ground water protection for alternative systems without a synthetic liner that are approved by NMED .

32. Chino shall investigate all known potential sources of ground water contamination at the Chino Mines Facility, define the extent and magnitude of ground water contamination, and propose an appropriate abatement plan in accordance with Sections 20.6.2.3109.E.1 or 20.6.2.4000 through 4115 NMAC. The abatement plans shall be incorporated into the appropriate Operational Discharge Permit. If the Stage 1 and 2 abatement plans indicate that the abatement plan may qualify under Section 20.6.2.4103.F NMAC, Chino shall petition the WQCC for alternative abatement standards consistent with the terms and conditions of this Supplemental Discharge Permit. Chino shall file the petition for alternative abatement standards with the WQCC pursuant to Sections 20.1.3.300 and 20.6.2.4103.F NMAC no later than four years after the Effective Date of this Supplemental Discharge Permit.

    A. If the WQCC does not approve the petition for alternative abatement standards before the expiration date of this Supplemental Discharge Permit, Chino shall submit an application to modify this Supplemental Discharge Permit based upon the results of the studies described in the studies required in Conditions 79-93. Chino shall submit its application to modify within 90 days after WQCC disapproval of the petition for alternative abatement standards or within 90 days after the expiration date of this Supplemental Discharge Permit, whichever date is first.

    B. If the WQCC approves alternative abatement standards that are not consistent with the terms and conditions of this Supplemental Discharge Permit, Chino shall submit an application to modify this Supplemental Discharge Permit to ensure that ground water quality meets the approved alternative abatement standards. Chino shall submit its application to modify within 90 days after WQCC approval

of alternative abatement standards.

33. In the event of Cessation of Operation at the Chino Mines Facility prior to an orderly drain down of process solutions (e.g. PLS, raffinate, make-up water) in the Leach Ore Stockpiles, pipeline and Reservoirs, Chino shall continue to operate and maintain pumps, containment structures and collection systems in accordance with Conditions 30, 31 and 85 through 87 for water treatment and sludge disposal, or Chino shall propose an alternative for NMED approval to ensure compliance with Sections 20.6.2.3000 through 3114 and 4000 through 4115 NMAC.

Water Rights

34. Within 15 days after the Effective Date of this Permit, Chino shall provide NMED with documentation of the water rights owned by Chino Mines Company that will be dedicated to Chino's water treatment system (hereinafter referred to as "Water Rights.")

35. Within 15 days after the Effective Date of this Permit, Chino shall provide NMED with a title opinion from a New Mexico licensed attorney opining that the Water Rights described in Condition 34 above are owned by Chino Mines Company with free and clear title and are not subject to any other claims of ownership or encumbrances.

36. Within 90 days of the Effective Date of this Supplemental Discharge Permit, Chino shall place the Water Rights in a trust. The purpose of the trust shall be to dedicate the Water Rights to Chino's water treatment system described in this Permit. The trust shall provide for full use and enjoyment by NMED of the water rights, in the event of forfeiture of financial assurance, when NMED determines that such use and enjoyment is necessary to effectuate the water treatment system objectives of this Supplemental Discharge Permit. The trust shall provide for retention by Chino Mines Company of full use and enjoyment of the Water Rights during periods of active mining, closure and post-closure at the Chino Mines Facility, so long as such use and enjoyment does not in any way interfere with effectuating the water treatment system objectives of this Supplemental Discharge Permit. The trust shall provide for the reconveyance of the Water Rights to Chino Mines Company if and when NMED determines that the water treatment objectives of the Supplemental Discharge Permit have been achieved. NMED shall be the beneficiary of the trust. The trust shall be in substantially the same form as the form of trust attached hereto as Exhibit 1.

37. Upon execution of the trust referred to in Condition 36 above, Chino shall record the deeds and other conveyance documents evidencing the transfer of title of the Water Rights from Chino Mines to the trust. The conveyance documents shall be filed in all applicable forums, including the Office of the State Engineer, the property records of the

county or counties in which the Water Rights are located, and in any judicial proceeding in which an adjudication of the Water Rights is pending.

38. Within 180 days of the Effective Date of this Supplemental Discharge Permit, Chino shall file with the Office of the State Engineer a written request seeking a determination that the commingling proposal set forth in this Supplemental Discharge Permit constitutes a beneficial use of Chino's Water Rights in furtherance of the mining and industrial purposes currently permitted by the State Engineer. If the State Engineer concurs with Chino that the commingling proposal described in this Supplement Discharge Permit is consistent with the purposes for which the Chino Water Rights are currently permitted, then Chino shall not be required to file a further application with the State Engineer.

39. In the event that the State Engineer does not concur that Chino's commingling proposal is consistent with the purpose for which Chino Water Rights are currently permitted, then Chino, without waiving its right to seek judicial review of the State Engineer's decision, file an application for permit authorization or approval to apply the Water Rights for the purpose of use provided for in the Chino water treatment system within 90 day of the of the decision from the Office of the State Engineer. In the event that the Office of the State Engineer does not approve the expanded purposes of use or approves the purposes of use in a manner that is not consistent with the terms and conditions of this Supplemental Discharge Permit, Chino shall apply to modify this Supplemental Discharge Plan in order to comply with all applicable provisions of the WQA and WQCC Regulations. Chino shall file the application to modify within 90 days of disapproval from the Office of State Engineer.

Water Treatment and Sludge Disposal

40. Chino shall construct, operate and maintain a water treatment system, in accordance with the design described in the Chino CCP - March 2001, to treat through a combination of chemical lime precipitation and commingling, all contaminated water to applicable WQCC water quality standards. In the Northern Area, the water treatment plant shall be designed with a useful operating life of a minimum of 100 years and a normal and maximum operating capacity of 1,200 gpm and 1,700 gpm respectively, to treat all contaminated waters in the Northern Area. The operating life shall consider replacement costs for the water treatment system. In the Southern Area, contaminated water shall be commingled with treated Northern Area effluent and other available water streams including fresh water, to create a combined effluent that meets applicable WQCC water quality standards. Operation of the plant shall commence within eighteen (18) months of the Cessation of Operation in the Northern Area at the Chino Mines Facility. Treated water shall be discharged in accordance with all applicable federal, state, and local laws,

regulations, and permits.

41. Chino shall pump and treat any contaminated water left in the Open Pit to the maximum extent practicable using the approved water treatment system in order to ensure that the applicable requirements of 20.6.4 NMAC, Sections 20.6.2.3000 through 3114, and 20.6.2.4000 through 4115 NMAC are met.

42. Sludge produced from the water treatment plant operation and maintenance shall be managed and disposed of in accordance with the plan required by Condition 85.

Closure and Post-Closure Monitoring, Reporting, and Other Requirements

43. Chino shall perform closure monitoring for each portion of the Chino Mines Facility for the purpose of determining but not limited to 1) nature and extent of ground water contamination and 2) containment system capture effectiveness during the closure period (i.e., from the date of Cessation of Operations until the date of Certification of Closure for that portion of the Chino Mines Facility under Condition 71). Chino shall submit all closure monitoring results under the appropriate approved Chino Operational Discharge Permits as outlined in Conditions 63 and 64.

44. Chino shall begin post closure monitoring upon Certification of Closure for any closed area, and shall perform such monitoring for a minimum of 100 years following certification.

45. Upon notification from NMED that the operations of a contamination interceptor or abatement system may cease in accordance with Condition 30, Chino shall continue the approved monitoring program for a minimum of 30 years or for the remainder of the 100 year post-closure monitoring period, whichever is longer, to ensure that there is no rebound in contaminant concentrations. If monitoring indicates that any ground water standard is exceeded after shut down of the contamination interceptor or abatement system, system operation shall resume in accordance with Conditions 44 and 45.

46. Upon NMED approval that post-closure monitoring is complete, Chino shall submit a schedule for abandonment of all appropriate monitoring wells. All monitoring wells shall be abandoned pursuant to *NMED Monitoring Well Construction and Abandonment Guidelines* and according to regulations issued by the Office of the State Engineer in Section 19.27.7 NMAC, unless an alternative completion is approved by NMED.

47. Chino shall conduct water quality monitoring, analysis and other monitoring and provide periodic reports as required by Conditions 48 through 65. Chino may request a modification to the frequency of sampling and reporting requirements of Conditions 48

through 65 consistent with the provisions of Section 20.6.2.3109.C NMAC. After two (2) years of post closure monitoring at any given closed area, NMED may amend the monitoring frequency, locations and analytical parameters or other measurements set forth in specific post-closure monitoring Conditions 44 through 65 for good cause shown. Any request from Chino for monitoring and reporting reductions shall include a justification for the monitoring reduction and a map showing selected well locations. Following any change in the monitoring requirements, Chino may propose to revise the closure cost estimate as required by Condition 102.

Sampling, Field Measurements and Periodic Inspections

48. Ground Water Monitoring Wells. Chino shall conduct closure and post-closure monitoring in accordance with the appropriate Operational Discharge Permits for monitoring wells which were subject to monitoring at the time of or following site closure. Chino shall record the depth to water to the nearest hundredth of a foot (0.01 ft) in all on-site monitoring wells. Samples shall be analyzed for the water parameters listed in Condition 61. Monitoring well data shall be reported as required in Condition 63.

49. Ground Water Supply Wells. Chino shall sample and analyze ground water quality in any private supply well within a reasonable proximity to the Chino Mine when the well owner or NMED requests an analysis and there is a reasonable basis. Chino shall make a good faith effort to obtain access to private wells for which NMED requests analysis. Samples shall be collected and analyzed for the water parameters listed in Condition 61. Analytical results shall be reported as required in Condition 63.

50. Seeps and Springs. Chino shall monitor water quality of all existing seeps and springs within a reasonable proximity to the Tailing Impoundments, Waste Rock Piles and Leach Ore Stockpiles on the Chino Mines Facility and any other seeps and springs which were subject to monitoring at the time of or following site closure. Samples shall be collected from each seep and spring once per quarter and shall be analyzed for the water parameters listed in Condition 61. Active seep and spring locations shall be recorded on a map and flow rates shall be measured, to the extent practicable, in gallons per minute from each flowing seep and spring once per month. Seep and spring locations, analytical results, and flow rates shall be reported as required in Condition 63.

51. Seepage Interception Ponds. Chino shall conduct quarterly closure and post-closure monitoring of water quality at seepage interception ponds until closure of these impoundments is completed. Seepage interception ponds are located along the western side of the West Leach Ore Stockpile behind catchment dams 10, 11, 12, 13, 14, 14-1, 14-2, 15, 16, 17, 18, 19 and 20; along the north and east sides of the Lampbright Leach Ore Stockpiles; and along the northwest side of the North Leach Ore Stockpile. If water is

present, a sample shall be collected and analyzed for the parameters listed in Condition 61. Analytical results shall be reported quarterly as required in Condition 63.

52. Surface Water. Chino shall conduct quarterly closure and post-closure monitoring of surface water quality at Axiflo Lake, James Canyon Reservoir, Whitewater Creek Diversion and all Reservoirs until closure of these impoundments is completed. Reservoirs in the Northern Area include Reservoirs 2, 3A, 4A, 5, 6, 7, 8, 9 and the PLS Pond on the west side of South Stockpile. Stormwater retention occurs near the former precipitation plant at dams 15, 16, 17 and 20. Reservoirs used for stormwater control shall be sampled semiannually if water is present at time of sampling for the parameters listed in Condition 61 and reported as required in Condition 63.

53. Interceptor Systems. Chino shall continue to monitor the Pond 7, SX/EW Plant, West Leach Ore Stockpile and any other seepage or remediation interception system components that may be in place following facility closure. Locations to be monitored include extraction wells and any new collection points added to any seepage interceptor system installed after issuance of this Supplemental Discharge Permit. The extraction wells shall be sampled semiannually following site closure. Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft) in all extraction wells on a quarterly basis. The total cumulative flow rate of intercepted and extracted water shall also be monitored and recorded. Samples shall be analyzed for the parameters listed in Condition 61. Analytical results, water level measurements and flow rates shall be reported as required below in Conditions 63 and 64.

54. Tailing Impoundment Draindown. Within one year after approval of this Supplemental Discharge Permit, Chino shall prepare a potentiometric map depicting tailing draindown for Ponds 6 and 7. Water level measurements may be supplemented with data from other moisture monitoring equipment as approved by NMED. The potentiometric map shall be revised annually and submitted with the report required by Condition 63 due on or before January 15 of each year.

55. Temperature, Oxidation-Reduction Potential (Redox) and/or Oxygen monitoring. Chino shall monitor temperature, redox and/or oxygen profiles within the South, West, North Pit and Lampbright Leach Ore Stockpiles. Based upon results from the cover test plot study required by Condition 82, Chino shall propose one or more of the above monitoring methods for NMED approval. Results shall be revised quarterly and submitted as required below in Conditions 63 and 64.

56. Entry. Chino shall inspect and maintain the fencing or other management systems to prevent access of wildlife and unauthorized humans to the Open Pit, Reservoirs, impoundments or any sump that contains waters that may be harmful or toxic.

57. Piezometers. Following cessation of operations, Chino shall record the depth to water to the nearest hundredth of a foot (0.01 ft) in all on-site piezometers existing at the time of site closure. Monitoring and reporting frequency shall be semiannually. Any changes to the piezometer network shall be reported to NMED. Chino shall install additional piezometers as necessary to monitor draindown conditions.

58. Revegetation. To ensure that revegetation is protective of water quality, Chino shall, at a minimum, perform closure and post-closure monitoring of revegetation pursuant to schedules and monitoring requirements approved by MMD. Any proposed changes to the closure or post-closure revegetation monitoring plan to meet NMMA requirements shall be submitted to NMED to ensure monitoring is protective of water quality. Chino shall provide NMED with a copy of revegetation monitoring results, including photographic documentation, in annual reports to NMED. At such time as MMD's revegetation monitoring requirements under the NMMA have been met, revegetation monitoring shall continue under the authority of NMED pursuant to this Supplemental Discharge Permit and the NMED/MMD Joint Powers Agreement dated January 24, 2001.

59. Erosion. Chino shall visually inspect closed 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 features shall be inspected in accordance with professionally recognized standards (e.g., Natural Resource Conservation Service standards). The inspections shall be conducted monthly for the first year following completion of closure construction activities, and quarterly thereafter. Reclaimed areas shall additionally be inspected for evidence of erosion after storm events of one inch or greater in any 24 hour period measured at the nearest rain guage. Chino shall verbally report evidence of major rill, gully, or sheet erosion on any reclaimed area within 24 hours of discovery. Chino shall provide a written report within 30 days of the discovery describing the nature and extent of erosion and steps taken repair the erosion. NMED may require that additional actions are taken relative to the erosion.

60. Meteorological Data. Chino shall conduct post-closure monitoring of site-specific meteorological conditions at both the Northern Area and the Southern Area. Meteorological conditions that shall be recorded include air temperature, relative humidity, wind speed, wind direction, precipitation, and net solar radiation and evaporation. A summary of daily meteorological data shall be reported annually for evaluation of cover performance under this Supplemental Discharge Permit.

Analysis

61. All surface water samples obtained pursuant to the post-closure monitoring requirements

of this Supplemental Discharge Permit shall be analyzed for both total and dissolved concentrations of the analytes listed below. Samples collected from ground water monitoring wells, the ground water remediation systems such as the Pond 7 Seepage Interceptor System, seeps, and springs shall be analyzed for dissolved concentrations of the analytes listed below.

a. Field parameters (analysis to be performed in the field): temperature, pH and electrical conductivity.

b. General chemistry parameters: calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulfate, chloride, nitrate, fluoride, and total dissolved solids.

c. Metals parameters: aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, selenium, silver, vanadium, and zinc.

d. Additional parameters as NMED requires on case by case basis: Eh, uranium, gross alpha, cyanide, mercury (total concentration only), total Polynuclear Aromatic Hydrocarbons (PAHs), Benzene, Ethyl benzene, Toluene and Xylene (BTEX), ammonia and Total Kjeldahl Nitrogen (TKN).

Methodology

62. Unless otherwise approved in writing by NMED, Chino shall conduct sampling and analysis in accordance with the most recent edition of the following documents:

a. American Public Health Association, *Standard Methods for the Examination of Water and Wastewater.*

b. U.S. Environmental Protection Agency, *Methods for Chemical Analysis of Water and Waste.*

c. U.S. Geological Survey, *Techniques for Water Resource Investigations of the U.S. Geological Survey.*

d. American Society for Testing and Materials, *Annual Book of ASTM Standards,* Part 31, Water.

e. U.S. Geological Survey, et al., *National Handbook of Recommended Methods*

for Water Data Acquisition.

f. Surface water monitoring must also be conducted according to test procedures approved under Title 40 of Federal Regulations Part 136.

Reporting

63. All closure and post-closure ground water, surface water, seep, spring, interceptor system, tailing draindown and piezometer monitoring data shall be reported quarterly under the applicable Chino Operational Discharge Permits. Following closure of any portion of the Chino Mines Facility, Chino shall amend the Chino Operational Discharge Permits so that the frequency of monitoring, the parameters monitored and the results of all monitoring tasks are consistent with those indicated in Condition 44 of this Supplemental Discharge Permit. Chino may request to combine discharge permits for purposes of closure or post-closure monitoring and reporting, or may request to terminate discharge permits and incorporate remaining closure and post-closure activities under this Supplemental Discharge Permit.

64. After the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED quarterly reports under this Supplemental Discharge Permit on or before January 15, April 15, July 15 and October 15 of each year. The reports shall contain a description of any work completed during the preceding quarter towards final closure of the Chino Mines Facility. This requirement includes, but is not limited to: 1) status of closure activities and related studies for the Open Pit, each Tailing Impoundment, each Waste Rock Pile, each Leach Ore Stockpile, the Hurley Smelter, Reservoirs and mine infrastructure; 2) any maintenance and repair work conducted for any closure component and 3) closure and post-closure monitoring results for revegetation, erosion and preventative measures to restrict access.

65. Chino shall prepare two potentiometric maps annually that include data from all monitoring wells, extraction wells, piezometers, seeps and springs. One potentiometric map shall cover the Southern Area (bounded by the town of North Hurley to 2 miles South of Tailing Pond 7) and one shall cover the Northern Area (bounded by Bayard, Hanover Creek, South and the Tributary 2 area east of the Lampbright Leach Ore Stockpiles). The potentiometric maps shall be submitted to NMED with the first report required by Condition 64 on or before January 15 of each year. Chino shall submit two orthophoto maps of the Chino Mines Facility every 30 months. One orthophoto map shall cover the Southern Area (bounded by the town of North Hurley to 2 miles South of Tailing Pond 7) and one shall cover the Northern Area (bounded by Bayard, Hanover Creek, South and the Tributary 2 area east of the Lampbright Leach Ore Stockpiles).

Post-Closure Maintenance

66. Chino shall perform quarterly inspections and annual evaluations of all seepage interceptor systems, including the Pond 7 Seepage Interceptor System and ground water remediation systems, and perform maintenance as necessary to ensure that all water contaminants are handled in a manner that is protective of ground water quality. Maintenance may include, but is not limited to the following: 1) purging of extraction wells; 2) upgrading or replacement of seepage barriers; and 3) servicing or replacement of components of the ground water extraction and remediation systems. The inspection results and any maintenance performed by Chino on seepage interception system components shall be reported annually as part of the appropriate Chino Operational Discharge Permits.

67. Chino shall perform maintenance on all reclaimed areas, including final covers, revegetation and any associated drainage and diversion structures, as necessary to preserve the integrity of the final covers and to ensure that the requirements of the WQA and the WQCC Regulations are met. Based on monitoring of revegetation and erosion required by Conditions 58 and 59, Chino shall provide recommendations for maintenance work in quarterly monitoring reports, including a schedule for completion of the work.

68. Chino shall routinely inspect and maintain all structures, facilities, supplies and equipment whose failure may impact ground water. Inspections and maintenance shall include but are not limited to: 1) stormwater retention Reservoirs; 2) the water treatment plant; 3) pumps and pipelines to deliver water to the water treatment plant; and 4) seepage collection ponds. Ground and surface water that exceeds the ground water quality standards in Section 20.6.2.3103 NMAC shall be handled and stored in a manner that is consistent with applicable regulatory requirements.

Implementation of Closure Plan

69. Chino shall provide notice informing NMED of Cessation of Operation within 15 days of the Cessation of Operations. Unless NMED has granted an extension as described below, or as provided by an approved extension consistent with the standby provisions of the New Mexico Mining Act, Chino shall implement the closure plan for any portion of the Chino Mines Facility within 180 days of Cessation of Operation of that portion of the facility, or according to the schedule established pursuant to Condition 76, unless operations resume within 180 days of the cessation. For Tailing Impoundment 7, Chino shall implement the closure plan within one year of cessation of tailing deposition, or according to the schedule established pursuant to Condition 70, whichever is later. Closure of Tailing Impoundments 1, 2, 4, B, C, 6E, 6W shall be implemented within one year after the Effective Date of this Supplemental Discharge Permit and shall be

completed sequentially for each Tailing Impoundment according to the schedule established pursuant to Condition 70, whichever is later. Chino may request NMED approval of an extension of the schedule for the implementation of all or portions of the closure plan if the request includes an adequate operational and interim closure plan for the period of extension to ensure that the requirements of the WQA and the WQCC Regulations are met. The extension shall not be longer than the remaining term of the existing discharge permit. Upon initiation of the discharge permit renewal process, stand-by requirements and proposed schedules for implementation of the closure plan shall be re-evaluated by NMED.

70. Within 180 days after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a comprehensive schedule for implementation and completion of surface shaping, final cover placement, drainage, revegetation and other reclamation activities as appropriate for the Tailing Impoundments 1, 2, 4, B, C, 6E, 6W, 7; Leach Ore Stockpiles; Waste Rock Piles; Reservoirs and any other areas requiring closure under this Supplemental Discharge Permit. The schedule shall detail the step-by-step progression of surface shaping, final cover placement, drainage, revegetation and other reclamation activities including the proposed duration for each step.

71. As soon as practicable following the completion of closure activities for all or part of the Chino Mines Facility, Chino shall submit to NMED a written request for Certification of Closure. The request shall be signed by a responsible company official, certifying that closure has been completed in accordance with the conditions of this Supplemental Discharge Permit. If NMED approves the request, it will issue a written Certification of Closure for that portion of the Chino Mines Facility covered by the request. If NMED does not approve the request, it will notify Chino in writing of the activities that Chino must undertake to complete closure.

Contingency Plan

72. In accordance with Section 20.6.2.1203 NMAC, Chino shall report and remedy any discharge not approved in this Supplemental Discharge Permit or an Operational Discharge Permit. This requirement includes, but is not limited to, corrective action to contain and remove or mitigate the condition, oral notification of NMED within 24 hours after discovery of the condition, written notification of NMED within one week after discovery of the condition, submittal of a corrective action report within fifteen days after discovery of the condition, and submittal of an abatement plan in accordance with Section 20.6.2.1203.A.9 NMAC or, if required by NMED in accordance with Conditions 30 through 33 of this permit.

73. For areas where the closure activities described in this Supplemental Discharge Permit

will require relocation of permitted monitoring wells, toe control systems and seepage collection systems, Chino shall submit a plan to NMED for approval at least 60 days prior to initiation of closure activities that includes a schedule for abandonment and replacement of all affected monitoring wells, toe control systems and seepage collection systems. The plan shall outline specific wells or systems to be replaced and shall include post-closure monitoring requirements consistent with this Supplemental Discharge Permit. All new monitoring wells shall be constructed pursuant to *NMED Monitoring Well Construction and Abandonment Guidelines* and according to regulations issued by the Office of the State Engineer in Section 19.27.7 NMAC, unless an alternative completion is approved.

74. If Chino discovers a significant increase in the extent or magnitude of ground or surface water contamination upon Cessation of Operations, during closure or post-closure monitoring, or a significant increase in discharge volume from any seep or existing discharge point, Chino shall notify NMED within five days of discovery of the increase pursuant to the applicable approved Chino Operational Discharge Permit(s) or this Supplemental Discharge Permit. If NMED discovers such an increase, it will notify Chino. Within 60 days of discovery or receipt of notification, whichever is earlier, Chino shall submit to NMED for approval an abatement plan including an implementation schedule to address source control and abatement of the contamination in accordance with Section 20.6.2.3109.A.1 NMAC. Upon NMED approval, Chino shall implement the abatement plan in accordance with the implementation schedule. The approved abatement plan and schedule shall be submitted pursuant to the appropriate Operational Discharge Permit(s) or this Supplemental Discharge Permit as approved by NMED.

75. Within 240 days of the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a contingency plan to address failure of any component of the closure plan, including but not limited to failure of collection, containment or treatment systems, failure of covers or revegetation, failure of surface run-on and run-off controls, or failures in slope stability, that may result in an exceedance of water quality standards or otherwise threaten public health or the environment. The contingency plan shall provide criteria for determination of closure component failures, including cover erosion criteria. Chino shall submit to NMED annual updates of the contingency plan to incorporate relevant details as the closure plan is implemented.

76. If information collected after closure of Tailing Impoundments, Waste Rock Piles or Leach Ore Stockpiles indicates that the comprehensive cover performance evaluation and cover and revegetation test plot study required by Conditions 81 and 82 did not accurately predict actual cover performance, and if NMED determines the cover is not protective of ground water quality, Chino shall submit to NMED for approval a proposed work plan including a schedule to remedy such failure, which may include redesign of the final

covers. Upon NMED approval, Chino shall implement the work plan according to the approved schedule.

77. If NMED or Chino identifies any other potential failure of this Supplemental Discharge Permit or system not specifically noted above, NMED may require Chino to develop and submit to NMED for approval contingency plans and schedules to address such a failure.

78. Within 240 days after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval an Emergency Response Plan that identifies operational parameters and provides contingencies for operational failures associated with pumping water from the Open Pit, Reservoirs, lakes, sumps or any other type of impoundment that contains water that may be harmful or toxic. The plan shall include normal operational water levels for all impoundments and contingencies to be implemented if water level elevations are exceeded. Chino shall submit to NMED annual updates of the Emergency Response Plan to incorporate relevant details as the closure plan is implemented.

Additional Studies

79. The approved schedule for implementation and completion of any studies described in this Permit may be adjusted by NMED upon request by Chino to coordinate with the requirements for the same or similar studies to be performed under the permit revision issued by the MMD approving Chino's closeout plan under the NMMA.

80. Chino shall perform a supplemental stability study. Within 240 days after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a work plan including an implementation schedule for a supplemental stability study to evaluate the long term physical stability of Waste Rock Piles and Leach Ore Stockpiles after site closure. The study shall evaluate and quantify changes in the engineering parameters resulting from the natural weathering process of the Waste Rock Pile and Leach Ore Stockpile materials that may ultimately affect long-term stability. At a minimum, the work plan shall propose methods and analyses to account for changes in chemical and physical properties of the stockpile materials from the time of deposition to present day and to a specified time during post-closure. The study shall include an evaluation of the shear strength of materials on the surface of the Waste Rock Piles and Leach Ore Stockpiles as well as the interior of the Waste Rock Piles and Leach Ore Stockpiles over a reasonable range of expected values for saturated and unsaturated conditions.

81. Chino shall perform a comprehensive cover performance evaluation. Within 90 days after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to

NMED for approval a work plan including an implementation schedule for a comprehensive cover performance evaluation. The purpose of the comprehensive cover performance evaluation is to evaluate the type and thickness of the proposed cover materials and to further characterize the physical and hydraulic properties of the proposed cover materials for the Tailing Impoundments, Waste Rock Piles and Leach Ore Stockpiles. The study shall be designed to determine whether the covers described in this Supplemental Discharge Permit and/or alternative cover systems will ensure that the requirements of the WQA and the WQCC Regulations are met. The study shall include an evaluation of the feasibility of limiting infiltration through the proposed covers or alternative covers to 1% or less of mean annual precipitation in conjunction with the study required in Condition 93. The evaluation report may include, at a minimum, the information necessary to evaluate the development of alternate abatement standards required by Conditions 30 through 33, a prediction of the post-closure impacts of Leach Ore Stockpile, Waste Rock Pile and Tailing Impoundment seepage to ground water quality based on a calibrated soil atmosphere model, calibrated ground water flow model(s), and geochemical modeling. Within three years of NMED approval of the work plan, Chino shall submit to NMED the comprehensive cover performance evaluation. The comprehensive cover performance evaluation shall be updated annually with available data from the cover and revegetation test plot study required by Condition 82 and any other applicable studies, when available. Based on the results of the comprehensive cover performance evaluation, NMED may require Chino to reevaluate the cover design required in Conditions 15 through 19 and amend or modify the cover design as necessary.

82. Chino shall perform a cover, erosion and revegetation test plot study. Within 90 days after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a work plan including an implementation schedule for a cover, erosion, and revegetation test plot study. The purpose of the study is, at a minimum, to evaluate: net infiltration through the store and release cover with differing cover thicknesses; feasibility of construction and construction techniques required during cover placement; erosion rates of covered and uncovered slopes; vegetation success; and the potential upward migration of acidic solutions from the Tailing Impoundments, Waste Rock Piles and Leach Ore Stockpiles. In addition, the study shall be designed to evaluate how site revegetation will be protective of water quality and shall incorporate measurement of revegetation parameters as required by MMD. The test plots shall be designed to include, at a minimum, cover depths of 24, 36 and 48 inches for Waste Rock Pile and Leach Ore Stockpile test plots; and 18, 24 and 36 inches for the Tailing Impoundment test plots. For the Waste Rock Pile and Leach Ore Stockpile test plots, cover depths of 24, 36 and 48 inches shall be evaluated at interbench slope angles of 2.0:1, 2.5:1, and 3.0:1. An uncovered angle of repose test plot shall also be evaluated. At a minimum, the study shall incorporate the following: 1) measurement of chemical parameters including pH,

electrical conductivity, and selected metals from water samples; 2) collection of daily site-specific meteorological data; 3) instrumentation to measure in situ soil moisture content and to measure infiltration through the covers and to calibrate numerical modeling; 4) measurements of vegetation success and erosion on varying slope angles and 5) temperature measurements within the test plots. The study shall be coordinated with the comprehensive cover performance evaluation study required by Condition 81 above. Chino shall submit to NMED annual reports summarizing the results of the study, including recommendations for improvement. Within 180 days prior to renewal of this Supplemental Discharge Permit, Chino shall submit a report that evaluates the test plot results as they relate to the requirements of the WQA and WQCC Regulations and the conditions of this Supplemental Discharge Permit. The study shall propose additional test plots, if necessary. The cover and revegetation test plot study shall be conducted for a minimum of seven years and shall be continued until NMED makes a determination, in consultation with MMD, that the study may be discontinued. For any given test plot, the cover thickness, seed mixture, and fertilizer application rate should not be modified during the evaluation period. Chino shall construct cover test plots using equipment and material that are proposed to construct final full-scale covers. Test plots shall be of a large enough scale to approximate actual reclamation practices to be performed at the site.

83. Chino shall perform a hydrologic study. Within 180 days after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a work plan including an implementation schedule for a study to evaluate the hydrologic conditions beneath the Tailing Impoundments, Waste Rock Piles and Leach Ore Stockpiles, including collection of temperature, water quality and water level data. The data from the hydrologic study may be used to develop an abatement plan(s). The study shall be submitted as an update to the Comprehensive Ground Water Characterization Study (CGCS) and shall be designed to determine whether the proposed closure activities will ensure that the requirements of the WQA and the WQCC Regulations are met. Chino shall update the boundaries for the Open Pit Capture Zone depicted in figure 3.5.2 N Potentiometric Surface Map North Area in the Phase III Comprehensive Groundwater Characterization Study (CGCS) Phase III Report submitted on January 1999 by Golder Associates.

84. Chino shall perform a supplemental Leach Ore Stockpile and Waste Rock Stockpile mass loading study. Within 180 days after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a supplemental Leach Ore Stockpile and Waste Rock Pile mass loading study work plan including an implementation schedule. The work plan shall include: internal Leach Ore Stockpile and Waste Rock Pile sampling to determine moisture profiles, temperature profiles, particle size distribution profiles, and internal structure of each Leach Ore Stockpile and Waste Rock

Pile; internal sampling results; sampling and analysis of seepage at Leach Ore Stockpile and Waste Rock Pile toes as well as seepage from test plots required by Condition 81 may be used to calibrate the transport model for test plot seepage. Additionally, Chino may propose an empirical or a numerical three dimensional geochemical contaminant transport model based on the internal stockpile sampling results.

85. Chino shall develop a detailed sludge handling plan and cost estimate. Within three years of the Effective Date of this Supplemental Discharge Permit, Chino shall provide to the NMED a report containing a detailed plan and cost estimate for the management of by-product sludge from the water treatment system. At a minimum, the plan shall address the locations and design of sludge management areas, volumes and tonnages of sludge, an operational plan, compliance with applicable waste management regulations (including chemical characterization of the sludge), and long-term sludge stabilization. Based on the results of this report, Chino may petition or NMED may require Chino to amend or modify this Supplemental Discharge Permit to ensure protection of ground water and surface water. Within 90 days of the Effective Date of this Supplemental Discharge Permit, Chino shall provide a schedule for completion of each of the components of this report. Within one year of the Effective Date of this Supplemental Discharge Permit, Chino shall begin to provide annual progress reports on the status of the above report.

86. Chino shall perform a water treatment system sustainability study. Within three years of the Effective Date of this Supplemental Discharge Permit, Chino shall provide to the NMED a report containing the following: (a) an identification of the sources of water, and associated water rights for dilution water to be used as part of the water treatment system required by Condition 40; (b) a computer modeled analysis of the sustainability of the water sources proposed for use in commingling for a period of at least 100 years; (c) an analysis of the potential impacts on ground water of land application of the final effluent stream; (d) an analysis of potential impact on ground water of land application to the commingling water source wells; (e) an identification of the discharge point(s) for the final effluent stream; and (f) a description of the proposed beneficial use for the final effluent stream, e.g. a description of a framework for the formation of an irrigation district. Within 90 days of the Effective Date of this Supplemental Discharge Permit, Chino shall provide a schedule for completion of each of the components of this study. Within one year of the Effective Date of this Supplemental Discharge Permit, Chino shall begin to provide annual progress reports on the status of the above components of the studies.

87. In the event that results from Condition 86 demonstrate that the proposed water treatment system will not comply with Conditions 40 and 41, Chino shall propose an alternative water treatment system to NMED for review and approval. This proposal shall include a feasibility study that compares the approved water treatment system with proposed

alternative(s), impacts to ground water and surface water, a cost estimate and implementation schedule. The proposed design document shall specify how the selected water treatment system will meet the numerical standards of Section 20.6.2.3103 NMAC. Within 180 days of NMED approval, Chino shall submit detailed design specifications and operating protocols for the selected water treatment system, including the management of by-product sludge.

88. Chino shall perform a process solution elimination study. Within 180 days after the Effective Date of this Supplemental Discharge Permit, Chino shall submit for NMED approval a work plan including an implementation schedule for a process solution elimination study. The purpose of the study is to evaluate alternatives and identify environmentally sound and cost effective methods to treat or eliminate the process solutions following Cessation of Operation or closure at the Chino Mines Facility. The study shall evaluate factors including but not limited to treatment plant size, pump size(s), number of pumps, pump rating, type of emitters, acreage and number of leach piles in the evaporation circuit. Based upon the study results, Chino shall submit to NMED for approval a method for process water elimination.

89. Chino shall perform a slag characterization study to determine the potential effects on ground water. Within one year after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a work plan with an implementation schedule that addresses characterization of the slag in the Hurley Smelter Area. The characterization results shall be presented in a final report along with a proposed closure plan and an implementation schedule. Closure of the slag pile shall be based on the results of the characterization. The report shall be submitted pursuant to the Operational Discharge Permit DP-214. The report shall evaluate whether the proposed plan will ensure that the requirements of the WQA and the WQCC Regulations are met. After NMED approval of the Chino slag pile characterization study report and closure plan and within one year following Cessation of Operation of the Hurley Smelter, Chino shall submit to NMED detailed engineering drawings for the approved plan. Chino shall commence implementation of the approved reclamation of the slag pile within 180 days of NMED approval of the detailed engineering drawings.

90. Chino shall perform a Lake One Area characterization study. Within one year after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a report that addresses characterization of the sediments and ground water in the Lake One Area, a detailed analysis of closure alternatives for the Lake One Area, and a selection of one alternative as the proposed plan including an implementation schedule. The Lake One characterization study shall include, an evaluation of the extent and magnitude of ground water and sediment contamination, and an evaluation of the connection between shallow and regional ground water. The analysis of closure

alternatives shall evaluate how the proposed closure plan will ensure that the requirements of the WQA and the WQCC Regulations are met. At a minimum, the analysis of closure alternatives shall include 1) excavation of all contaminated sediments above and below the water table and reprocessing or disposal of the sediments in a location approved by NMED; 2) the interim closure plan required by Condition 23 that includes cover, ground water pumping and water treatment; and 3) other closure alternatives. Upon NMED approval of an alternative, Chino shall commence implementation of the Lake One Area closure plan according to the implementation schedule approved by NMED.

91. Within one year after the Effective Date of this Supplemental Discharge Permit, Chino shall perform a Reservoir and impoundment study. The study shall be designed to determine which of the existing Reservoirs, lakes, sumps or any other type of impoundment will be needed during closure and post-closure for stormwater retention or seepage interception, and shall include a revised Table 5-6 from the Chino CCP - March 2001 and an implementation schedule for completion of reclamation.

92. Chino shall perform a supplemental Northern Area Ground Water Flow Model Study. Within 90 days after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a work plan including an implementation schedule for a study designed to model and characterize the impacts and potential future impacts to ground water in the Northern Area as a result of Cessations of Operations. The study shall be submitted as a supplement to the Northern Area Ground water Flow Model and shall address the comments of the third party review of the Northern Area Ground Water Flow Model Study obtained through a contract with Chino. Chino shall supplement existing data with additional information as needed.

93. Chino shall perform a feasibility study. Within 180 days after the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a work plan including an implementation schedule for a feasibility study (a detailed analysis of closure alternatives) designed to evaluate closure alternatives for each facility to be closed. The evaluation shall include a range of options for each alternative; for example, partial to full regrading of the Waste Rock Piles and Leach Ore Stockpiles. At a minimum, alternatives to be evaluated shall include: a) relocation, regrading, cover placement, and revegetation; b) stormwater collection; c) leachate collection; d) contaminated ground water collection and remediation; e) Open Pit reclamation, including partial backfill; f) water treatment; and g) appropriate combinations of the foregoing. Results of the analysis of alternatives shall be described in detail and summarized. The study shall be designed to determine whether the proposed closure alternatives will ensure that the requirements of the WQA and the WQCC Regulations

are met. At a minimum, alternatives shall be evaluated based on the following criteria: a) percentage reduction in infiltration, concentration, volume, and mobility of water contaminants; b) effectiveness in attaining ground water and surface water quality standards; c) technical feasibility; d) stability and durability; e) cost, including but not limited to capital costs, operating costs, incremental facility operating costs, impacts on mine reserve base and associated anticipated mine life. The feasibility study shall include a cost estimate for each alternative evaluated including implementation, long-term maintenance and long-term financial assurance requirements. Also, the study shall evaluate the effect of source control on Leach Ore Stockpiles and Waste Rock Piles within the Open Pit Capture Zone on water quality; the possibility of narrowing the boundaries of the Open Pit Capture Zone; and whether ground water exceedances could be reduced or eliminated by implementing source control measures, such as regrading, cover, revegetation and water management. This feasibility study shall incorporate data and other information derived from the other additional studies required in this Supplemental Discharge Permit. The study shall be completed within four years after the Effective Date of this Supplemental Discharge Permit. Upon completion, Chino shall submit to NMED for approval a feasibility study report detailing the options evaluated and a proposed course of action.

94. If the results of the studies described above in Conditions 80 through 93, other studies performed under this Supplemental Discharge Permit, or studies performed under the Chino Operational Discharge Permits, the Administrative Order on Consent (December 24, 1994) or studies performed under the NMMA indicate that additional or alternative closure actions are necessary to comply with the requirements of the WQA and the WQCC Regulations are met., Chino shall petition or NMED may require Chino to amend or modify this Supplemental Discharge Permit to ensure protection of ground water and surface water.

Financial Assurance

95. Chino shall maintain financial assurance in an amount sufficient to cover the cost of a third party to implement the closure plan required by Conditions 1 through 94 of this Supplemental Discharge Permit. The financial assurance shall ensure that the closure plan will be implemented if at any time after Cessation of Operation at the Chino Mines Facility, or any portion thereof, Chino is unable, unwilling, or otherwise fails to implement closure of the facility or portion thereof.

96. Within 30 days of the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a cost estimate for completion of each of the additional studies provided for in Conditions 80 through 93. The cost estimate submittal shall include a line item cost for each additional study provided for in Conditions 80 through

93. The submittal shall include supporting documentation justifying the cost basis for each study, and shall take into consideration the costs for work plan preparation, field work, sampling, field instrumentation, consultant fees, laboratory analyses, data evaluation, computer simulation, indirect costs, progress reports, responses to NMED comments and final reports.

97. Within 60 days of the date of the Effective Date of this Supplemental Discharge Permit, Chino shall submit to NMED for approval a draft of its proposed financial assurance instruments that meet the requirements of Conditions 95 through 102.

98. Within 30 days after NMED approval of the draft financial assurance instrument, Chino shall execute the financial assurance instrument sufficient to provide sufficient funds to pay the estimated costs of implementing the closure plan, which total $390,700,000 in current dollars plus the cost for additional studies as determined through Condition 96. The financial assurance instrument shall be structured to provide for payment of the estimated costs of implementing the closure plan over the life of this closure plan, as shown in the estimated annual cash flows presented in Exhibit 2 and 3, subject to an annual escalation rate of 3.17 percent for water treatment costs and 3.64 for other costs. Alternatively, the financial assurance instrument shall be structured to provide for a lump sum payment of the net present value of the estimated costs of implementing the closure plan based upon an annual escalation rate of 3.17 percent for water treatment costs and 3.64 percent for other costs and discount rates of 5% for the first 12 years and 8% for years 13 through 100. Discount and escalation rates shall not be applied to the costs for additional studies. A combination of the foregoing two types of financial assurance instruments may be used subject to NMED approval. The instruments shall name NMED (or NMED and Energy, Minerals and Natural Resources Department (EMNRD) for joint financial assurance) as the beneficiary. The instruments shall be in a form provided by NMED. The instruments shall be maintained until the financial assurance is released.

99. Within 30 days after NMED approval of the draft trust agreement, Chino shall establish a trust fund to fund closure activities as provided for in Condition 95 and shall execute a trust agreement. The trust fund shall name NMED (or NMED and EMNRD for joint financial assurance) as the beneficiary. The trust agreement shall be in a form provided by NMED. It shall incorporate the provisions of Condition 101. The trust fund shall be maintained until the financial assurance is released.

a. Upon execution of the trust agreement, an emergency fund in the amount of $1,000,000 shall be deposited in the trust fund to cover immediate water management costs (e.g. pumps, piping, personnel, electricity) should NMED need to proceed with forfeiture of the financial assurance prior to completion of mine closure. Alternatively, Chino may provide financial assurance instruments that assure payment of the above

amount on terms acceptable to NMED.

b. Upon forfeiture of the financial assurance, the forfeited amounts shall be deposited directly into the trust fund to fund closure activities.

c. Upon forfeiture of the financial assurance, a separate long-term water treatment fund in the amount of approximately $253,000,000 in current dollars shall be deposited in the trust fund to cover the costs of construction, implementation, operation (including the addition of chemicals), maintenance, and monitoring of the water treatment and seepage interceptor system. Alternatively, Chino may provide financial assurance in a form subject to NMED approval that assures annual payments equivalent to the estimated cash flows for these costs.

d. The emergency fund, the long-term water treatment fund, and any other amounts deposited in the trust fund shall be maintained in separate accounts.

100. Chino shall provide NMED with an original signed and notarized copy of each of the financial assurance instruments within 35 days after NMED approval of the draft financial assurance instruments.

101. The financial assurance, including any revised financial assurance, shall meet the following standard requirements:

a. The financial assurance shall be executed in an amount equal to the NMED approved closure cost estimate. The closure cost estimate shall include direct costs associated with third party implementation of the closure plan, contingency costs and NMED oversight and administration costs, including indirect costs.

b. Except as provided herein, NMED shall be named as the sole beneficiary in the financial assurance instrument. Chino may select a joint financial assurance instrument to meet the requirements of NMED and EMNRD. If a joint instrument is selected, both NMED and EMNRD shall be named as joint beneficiaries and the joint instrument shall meet the requirements of both agencies.

c. The financial assurance instruments shall remain in effect throughout the term of this Supplemental Discharge Permit, including the post-closure period, and until released by NMED. The financial assurance shall remain in place at all times, including lapses in discharge permit coverage, late discharge permit renewal or temporary shut down of facilities covered under this Supplemental Discharge Permit.

d. The financial assurance shall include a method for adjustments due to inflation, new

technologies, and NMED approved revisions to the closure plan based on continued investigations.

e. No more than once every 12 months Chino may request that NMED review remaining closure measures, including alternative closure measures that NMED has approved. The request for closure review shall describe the closure measures completed and shall contain an updated cost estimate for remaining closure measures. If NMED approves the description of completed closure measures and the cost estimate for remaining closure measures, NMED will adjust the amount of financial assurance to reflect the revised cost estimate.

f. The financial assurance shall be evaluated, and if necessary, revised to comply with WQCC financial assurance regulations if and when such regulations are promulgated and become effective.

g. The financial assurance shall include a provision, which requires the financial assurance provider to provide at least 120 days written notice to NMED and Chino prior to cancellation or non-renewal of the financial assurance. Chino shall obtain an NMED approved alternate financial assurance mechanism within 60 days of such notice. If Chino fails to obtain alternate financial assurance within 60 days, the current financial assurance shall become immediately payable to the trust fund.

h. If NMED determines that implementation of the closure plan is required and that Chino is unable or unwilling or will otherwise fail to conduct or complete the closure requirements of this Supplemental Discharge Permit, then NMED may proceed with forfeiture of all or part of the financial assurance. Prior to beginning a forfeiture proceeding, NMED will provide written notice, by certified mail return receipt requested, to Chino and to the surety, if applicable, informing them of the determination to forfeit all or a portion of the financial assurance. The written notice will state the reasons for the forfeiture and the amount to be forfeited. The amount shall be based on the total cost of performing closure, including post-closure monitoring and maintenance, in accordance with this Supplemental Discharge Permit and all applicable laws and regulations. NMED will also advise Chino and the surety, if applicable, of the conditions under which forfeiture may be avoided. Such conditions may include, without limitation, an agreement by Chino, by a surety, or by an NMED approved third party to perform closure, including post-closure monitoring and maintenance, in accordance with this Supplemental Discharge Permit and all applicable laws and regulations, and a demonstration that such person has the financial ability and technical qualifications to do so. All financial assurance forfeited shall become immediately payable to the trust fund or as otherwise provided in the approved instruments. Forfeited funds shall be used to complete performance of the closure plan. If the forfeited amount is insufficient, Chino shall be liable for the remaining

costs. If the amount forfeited is more than necessary, the excess amount shall be refunded to the person from whom it was collected.

i. All or part of the financial assurance shall be released or modified when NMED determines that the corresponding closure and post-closure measures covered by the financial assurance have been completed according to the closure plan requirements of this Supplemental Discharge Permit.

102. Within thirty days of NMED approval of a revised closure plan, or upon a determination that the existing financial assurance is inadequate, Chino shall propose a revised closure cost estimate and financial assurance instruments which incorporate the provisions of Condition 101 above. Within 30 days of NMED approval of the revised financial assurance instrument, Chino shall execute the revised financial assurance instruments and submit signed, notarized copies to NMED.

IV. STANDARD PERMIT REQUIREMENTS

Record Keeping

103. Chino shall maintain at its facility a written record of all data and information on monitoring of groundwater, surface water, leachate, wastewater, and meteorological conditions conducted pursuant to this Supplemental Discharge Permit, including the following:

a. The date, exact time, and exact location of each sample collection or field measurement;

b. The name and job title of the person who performed each sample collection or field measurement;

c. The date of the analysis of each sample;

d. The name and address of the laboratory and the name and job title of the person that performed the analysis of each sample;

e. The analytical technique or method used to analyze each sample or take each field measurement;

f. The results of each analysis or field measurement, including the raw data; and

g. A description of the quality assurance and quality control procedures used.

104. Such data and information shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples.

105. Chino shall maintain a written record of any spills, seeps, or leaks of leachate, effluent, or process fluids not authorized by this Supplemental Discharge Permit or an Operational Discharge Permit.

106. Chino shall maintain a written record of the operation, maintenance, and repair of all facilities and equipment used to treat, store, or dispose of wastewater; to measure flow rates, to monitor water quality, or to collect other data required by this Supplemental Discharge Permit. This record shall include repair, replacement, or calibration of any monitoring equipment and repair or replacement of equipment used in Chino's waste or wastewater treatment and disposal system.

107. Notwithstanding any company record retention policy to the contrary, until such time as NMED determines that all closure measures have been completed in accordance with the requirements of this Supplemental Discharge Permit, Chino shall retain copies of all data, records, reports, and other documents generated pursuant to this Supplemental Discharge Permit, including those listed in Conditions 43 through 65 above. Such record retention period may be increased by NMED at any time upon written notice to Chino.

108. All such data, records, reports, and other documents, including those listed in Conditions 43 through 65 above, shall be provided to NMED upon request.

Submittals

109. Chino shall submit three hard copies and one electronic copy of all required studies, work plans and technical reports to NMED. All studies, work plans and technical reports shall be evaluated for technical completeness and adequacy by NMED and, if applicable, shall contain the signature and stamp of the certified and registered Professional Engineer overseeing the submittal preparation. If NMED disapproves the proposed work plan, NMED shall provide a written notice of deficiency. Chino shall have 90 days to resolve deficiencies and obtain NMED approval. If NMED and Chino are unable to reach agreement within 90 days, Chino shall be in violation of this Supplemental Discharge Permit. All work plans and associated schedules submitted under this Supplemental Discharge Permit, once approved by NMED, shall be incorporated herein as an enforceable part of this Supplemental Discharge Permit.

Inspection and Entry

110. In accordance with NMSA 1978, § 74-6-9.B and E, and Section 20.6.2.3107.D NMAC, Chino shall allow any authorized representative of NMED, upon the presentation of credentials, to enter any property or premises owned or controlled by Chino during regular business hours or at other reasonable times for the following purposes:

    a. To inspect and copy any data, records, reports, or other documents generated pursuant to this Supplemental Discharge Permit or pursuant to state or federal water quality regulations, including those listed in Conditions 103 through 108above.

    b. To inspect any equipment, device, monitoring system, well, collection system, pipeline or other conveyance system, treatment works, or other system or facility required by this Supplemental Discharge Permit or by state or federal water quality regulations.

    c. To sample or monitor any leachate, water contaminant, effluent, or receiving groundwater or surface water at any location before, after, or during discharge.

    d. To sample or monitor any well or other collection system.

111. Nothing in this Supplemental Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation.

Duty to Provide Information

112. In accordance with the NMSA 1978, §§ 74-6-5.I(4) and 74-6-9.B and Section 20.6.2.3107.D NMAC, within a reasonable time after a request from NMED, which time may be specified by NMED, Chino shall provide NMED with any relevant information to determine whether cause exists for modifying, terminating, or renewing this Supplemental Discharge Permit, or to determine whether Chino is in compliance with this Supplemental Discharge Permit.

113. Nothing in this Supplemental Discharge Permit shall be construed as limiting in any way the information gathering authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation.

Modifications/Amendments

114. Pursuant to Section 20.6.2.3107.C NMAC, Chino shall notify NMED of any changes to

its wastewater collection or disposal system, including any changes in the wastewater flow rate or the volume of wastewater storage, or of any other changes to its mining operations or processes that would result in any significant change in the discharge of water contaminants. Chino shall obtain NMED approval, as a modification to this Supplemental Discharge Permit pursuant to Sections 20.6.2.3109.E, F, or G NMAC, prior to any increase in the quantity of leachate discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Supplemental Discharge Permit.

Transfer

115. Pursuant to Section 20.6.2.3111 NMAC, prior to the transfer of any ownership, control, or possession of the Chino Mines Facility or any portion thereof, Chino shall notify the proposed transferee in writing of the existence of this Supplemental Discharge Permit and include a copy of this Permit with the notice. Chino shall deliver or send by certified mail to NMED a copy of the notification and proof that such notification has been received by the proposed transferee.

Enforcement

116. Any violation of the requirements and conditions of this Supplemental Discharge Permit, including any failure or refusal to allow NMED to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject Chino to an enforcement action. Pursuant to NMSA 1978, § 74-6-10.A and B, such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, suspending or terminating the Supplemental Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to NMSA 1978 §§ 74-6-10.C and 74-6-10.1, civil penalties of up to $15,000 per day of noncompliance may be assessed for each violation of NMSA 1978, § 74-6-5, the WQCC regulations, or this Supplemental Discharge Permit, and civil penalties of up to $10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. For certain violations specified in NMSA 1978, § 74-6-10.2, criminal penalties may also apply.

In any action to enforce this Supplemental Discharge Permit, Chino waives any objection to the admissibility as evidence of any data generated pursuant to this Supplemental Discharge Permit.

Unless otherwise specified in this Supplemental Discharge Permit, all conditions of this permit may be removed or terminated through modification of the Supplemental

Discharge Permit pursuant to WQCC Regulations and the WQA.

Compliance With Other Laws

117. Nothing in this Supplemental Discharge Permit shall be construed in any way as relieving Chino of its obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders.

Right To Appeal

118. Pursuant to the Section 74-6-5.N of the WQA, Chino may file a petition for a hearing before the WQCC on this Supplemental Discharge Permit. Such petition must be made in writing to the WQCC within 30 days after Chino receives notice of the Supplemental Discharge Permit. Unless a timely petition for a hearing is made, the decision of NMED shall be final.

Term

119. Pursuant to the Section 74-6-5.H of the WQA, and Section 20.6.2.3109.H NMAC, this Supplemental Discharge Permit expires five years from the Effective Date. To renew the Supplemental Discharge Permit, Chino must submit to NMED an application for renewal at least 180 days before the expiration date.

Issued this 24th day of February, 2003

Marcy Leavitt for M. Leavitt

Marcy Leavitt, Chief
Ground Water Quality Bureau
New Mexico Environment Department

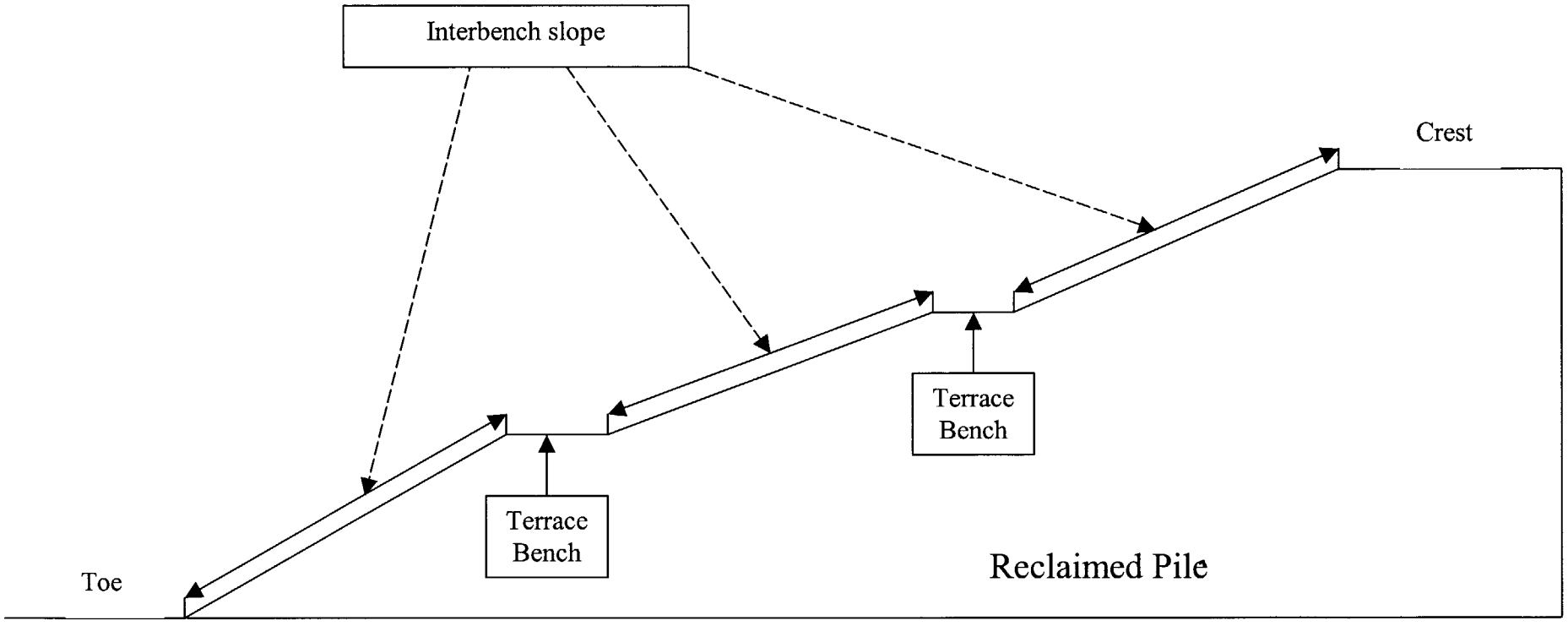

Figure 1. Graphical definition of Interbench Slope

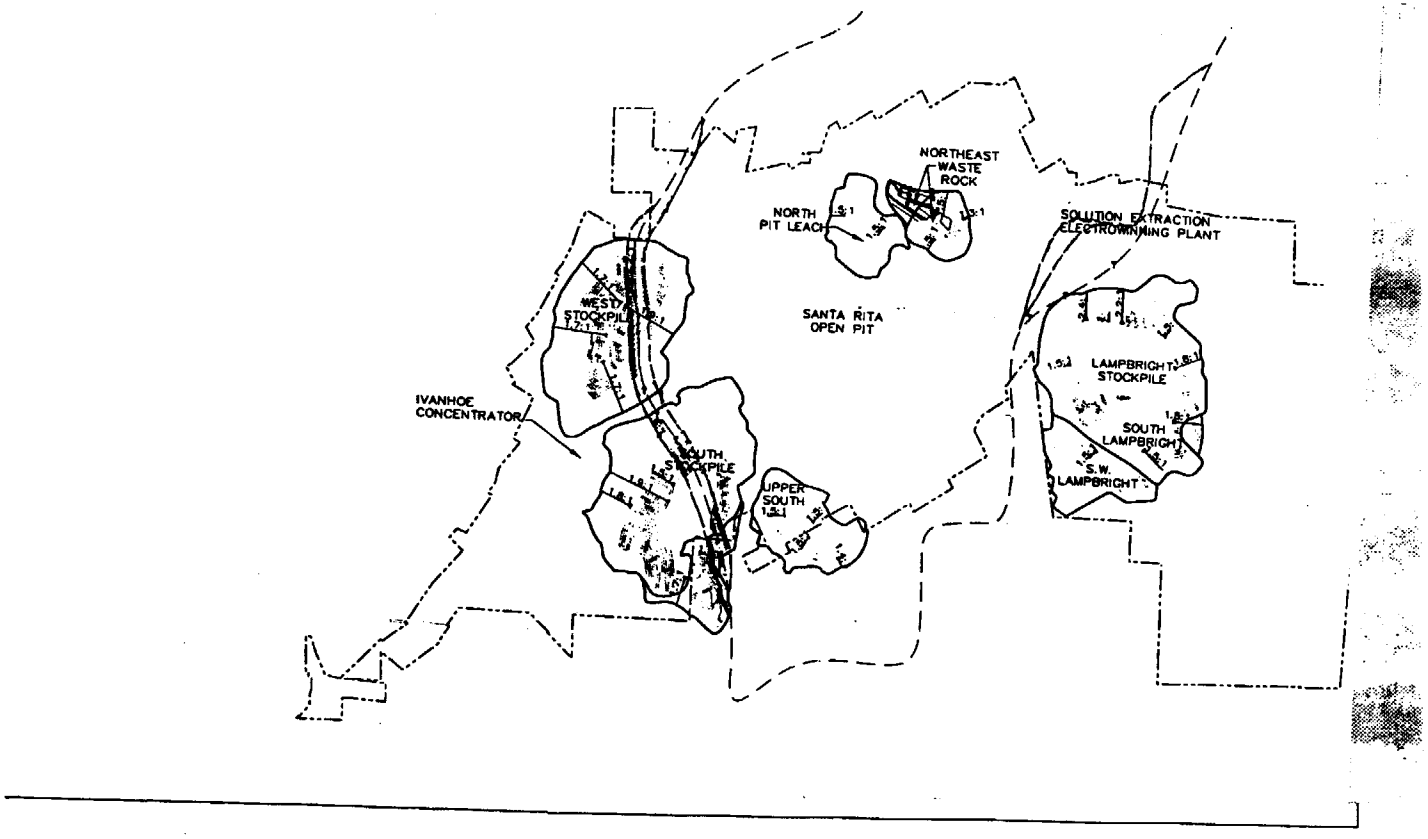

Figure 2 Open Pit Capture Zone

EXHIBIT 1
CHINO MINES COMPANY WATER RIGHTS TRUST AGREEMENT

This irrevocable Water Rights Trust Agreement ("Agreement") is made and entered into on _____, 2003, by **Chino Mines Company**, a New Mexico general partnership, the **New Mexico Environment Department** ("NMED") and _____ ("Trustee").

RECITALS

A. Chino Mines Company owns, operates, manages, and maintains a large open pit copper mine in Grant County, New Mexico.

B. The open pit mine is located in Township 17 & 18S Range 12W in the vicinity of the community formerly known as Santa Rita, New Mexico ("Santa Rita Pit"). Additional facilities and infrastructure associated with the mine are located in the vicinity of Hurley, New Mexico.

C. In addition to the Santa Rita Pit, the Chino mine facilities include leach and waste stockpiles, tailings ponds and various facilities for the extraction and processing of copper ore including a mill, a concentrator, a smelter, an SX/EW plant and related infrastructure including out buildings, maintenance facilities, water wells, pipelines, and other fixtures, all of which Chino utilizes in its mining and smelting operations ("Chino Assets").

D. The Chino Assets include extensive Mimbres basin surface and underground water rights permitted or licensed by the New Mexico State Engineer to Chino for use in connection with Chino's copper mining operations. The groundwater that Chino uses in its mining operations includes water used for domestic consumption and makeup water for Chino's copper ore extraction, leaching and manufacturing processes ("Process Water").

E. On February 24, 2003, pursuant to the New Mexico Water Quality Act ("WQA") and the regulations promulgated by the New Mexico Water Quality Control Commission ("WQCC"), NMED approved a mine closure plan and issued, with conditions, a supplemental discharge permit for closure to prevent or abate violations of groundwater standards resulting from any discharges of effluent or leachate that may continue after closure at the Chino mine ("DP-1340").

F. To facilitate and accomplish the long-term ground water remediation and other objectives of DP-1340 Chino proposes to establish this irrevocable trust.

G. To accomplish the purposes of the Trust, Chino intends to grant and transfer certain of its water rights to the Trust, which water rights are more fully described in Exhibit A attached hereto (the "Trust Water Rights").

H. Chino anticipates that it will continue to utilize the Trust Water Rights in connection with copper mining operations pursuant to an Agreement for Use of Water Rights

with the Trustee.

I. As the Chino mine transitions from an active mining operation to a post-closure mining property, Chino intends to utilize the Trust Water Rights to, among other uses, protect and remediate groundwater at the Chino Mines Facility. In accordance with DP-1340, Chino intends a) to utilize sumps to remove water from the floor of the pit, b) to operate interceptor wells to capture migrating groundwater in the vicinity of the pit, c) to construct a water treatment facility to remove contaminants from the captured effluent, d) to mix the treated effluent with additional water to reduce sulfate and total dissolved solids (TDS), and e) to otherwise comply with its obligations under DP-1340.

J. DP-1340 describes in detail the ground water remediation, treatment and monitoring responsibilities of Chino at closure. At closure, DP-1340 allows Chino to mix treated effluent with additional water to reduce sulfate and TDS. DP-1340 additionally requires Chino to make the rights to the additional water used for mixing available to NMED in the event that Chino fails to fulfill its obligations under DP-1340 and forfeits the financial assurance required thereunder.

K. In order to harmonize the continuing use of the Trust Water Rights in active mining with the requirement of DP-1340 to make water available for mixing and other objectives in connection with closure activity, the Trustee intends to execute an Agreement for Use of Water Rights with Chino granting to Chino the continuing right to put the Trust Water Rights to beneficial use at the Chino Mine ("2003 Use Agreement"). A copy of the 2003 Use Agreement is attached hereto and marked Exhibit "B."

L. The Trustee is willing to hold the Trust Water Rights in trust and to protect and preserve the Trust Water Rights so that the purposes of this Trust are accomplished as more fully set forth herein. The Trustee further covenants to faithfully discharge all of the duties of a Trustee hereunder.

AGREEMENT

Now, therefore, for valuable consideration, the receipt of which is hereby acknowledged, Chino, NMED, and the Trustee agree that Chino shall transfer the Trust Water Rights to the Trustee to be held in trust under the terms of this Agreement. Furthermore, the Trustee agrees to hold, manage and distribute the trust assets pursuant to the terms of this Agreement.

ARTICLE 1
NAME OF TRUST, PURPOSE AND REMAINDER INTEREST

1.1 Name. This Agreement and the trust created hereunder may be referred to as the "Chino Mines Company Water Rights Trust" (the "Trust").

1.2 Beneficiary. The beneficiaries of the Trust are NMED and Chino.

1.3 Dual Purpose. The Trust shall have dual purposes:

a. Environmental Protection. Chino is transferring the Trust Water Rights into trust to assure NMED as a beneficiary of the Trust that NMED will have access and recourse to the Trust Water Rights for use in connection with the objectives of DP-1340 in the event Chino fails to fulfill its obligations under DP-1340 and forfeits the financial assurance required thereunder.

b. Chino's Business Objectives. The Trust shall accommodate and cooperate with Chino's continuing use and enjoyment of the Trust Water Rights both in its mining and smelting operations and in any other activity or beneficial use permissible under the laws of the State of New Mexico and not in conflict with the ground water remediation and water treatment provisions of DP-1340. To that end, the Trustee is executing the 2003 Use Agreement. With the exception of the 2003 Use Agreement, the Trustee shall not sell, lease or transfer the Trust Water Rights or in any manner encumber or compromise its title to the Trust Water Rights without the written consent of Chino and NMED provided that the Trustee may from time to time transfer Trust Water Rights to Chino that are no longer required to comply with the conditions set forth in DP-1340 with the written approval of NMED, which consent shall not be unreasonably withheld.

1.4 Responsibility for Compliance with DP-1340. Responsibility for compliance with DP-1340 rests exclusively with Chino. Under no circumstances shall the Trustee incur any liability or obligation under DP-1340. However, in the event Chino fails to comply with its obligations, the Trustee shall after consultation with NMED, ensure that the Trust Water Rights are available to implement all water treatment uses contemplated in DP-1340.

1.5 Contingent Remainder. Chino shall be entitled to the remainder interest in the Trust Estate. Upon completion of the ground water remediation, water treatment requirements, post-closure requirements and other objectives of DP-1340, NMED shall certify that the objectives of DP-1340 have been accomplished. Upon certification, or a like finding by a court of competent jurisdiction, the Trustee shall reconvey and transfer to Chino or its successor in interest the entire Trust Estate including the Trust Water Rights and all remaining assets in the Trust.

ARTICLE 2
TRUST PROPERTY

2.1 Initial Trust Estate. Chino hereby transfers and delivers to Trustee all of its right, title, and interest in and to the Trust Water Rights, to have and to hold the same and any other property which the Trustee, pursuant to any of the provisions hereof at any time, may hereafter hold or acquire, together with undistributed income therefrom, (all of such property being hereinafter referred to collectively as the "Trust Estate") under the terms and conditions hereafter set forth.

2.2 2003 Use Agreement. Following the transfer of the Trust Water Rights into trust,

the Trustee shall lease and demise use of the Trust Water Rights to Chino for an initial term of five years by executing the 2003 Use Agreement.

2.3 Intention of the Parties. It is the intention of the parties that upon execution of the 2003 Use Agreement, Chino's interest in the Trust Water Rights shall include:

a. Its rights under the 2003 Use Agreement and all extension, renewals and modifications thereof, and

b. Its contingent remainder interest in the Trust Water Rights as more fully set forth in Article 1 hereof.

It is likewise the intention of the parties that the Trustee's right, title and interest in the Trust Estate and the Trust Water Rights shall be subject only to the rights and obligations of Chino under the 2003 Use Agreement and DP-1340, and that the Trustee shall protect and defend its title to the Trust Water Rights until such time as NMED or a court of competent jurisdiction certifies that the purposes and objectives of the Trust have been accomplished.

2.4 Additional Property. Chino and any other person or entity having the prior written approval of Chino shall have the right at any time to increase the Trust Estate by delivering property to the Trustee.

2.5 Trustee's Discretion. Notwithstanding any other provisions contained herein, the Trustee may accept or decline to accept additions from any source.

ARTICLE 3
IRREVOCABILITY

3.1 No Amendment. This Trust is irrevocable and shall not be subject to amendment or alteration by Chino, NMED or the Trustee except by order of a court of competent jurisdiction. Chino, NMED and the Trustee each hereby expressly acknowledge that they each shall have no right or power, whether alone or in conjunction with others, in whatever capacity, to alter, amend, revoke, or terminate any trust created herein, or any of the terms of this Agreement, in whole or in part, or to alter the designation of the persons who shall possess or enjoy the Trust Estate or the income therefrom.

ARTICLE 4
TRUSTEE'S POWERS

4.1 Limited Powers. The Trustee shall be vested with the following specific powers and discretion in addition to the powers conferred by NMSA 1978, § 45-7-401 or any other powers conferred upon the Trustee by law that are necessary to accomplish the following powers:

(a) Consultation with Chino and NMED. The Trustee shall have the power to consult and confer with Chino and NMED on any matters affecting the administration

and management of the Trust Water Rights, the Trustee's title to the Trust Water Rights, the 2003 Use Agreement and DP-1340.

(b) Use Agreement Renewal. The Trustee and Chino may renew and extend the 2003 Use Agreement without the consent of NMED provided Chino is not then in default under the 2003 Use Agreement or has not then forfeited the financial assurance required by DP-1340. Chino and the Trustee may amend or modify the 2003 Use Agreement, however, only with the written consent of NMED.

(c) Participation in Judicial Proceedings. The Trustee shall have the power to take all steps reasonably necessary to protect, defend and conserve the Trust Estate in any judicial or administrative proceeding contesting, challenging or affecting directly or indirectly a) the Trustee's title to the Trust Water Rights, b) the places, purposes and priority of use of the Trust Water Rights as set forth in the permits and licenses issued by the New Mexico State Engineer and recognized in the judicial decrees of the State of New Mexico, c) the right of Chino to beneficially use the Trust Water Rights as provided in the 2003 Use Agreement and any extensions, modifications or amendments thereof, and d) its right to cause the Trust Water Rights to be put to beneficial use in connection with the post-mining water treatment objectives set forth in DP-1340.

(d) Delegation. Without compromising or limiting in any manner the powers set forth in the preceding paragraph, the Trustee may delegate various duties to Chino associated with protecting, defending and conserving the Trust Water Rights. These delegations may include a) the ministerial record keeping, water rights administration and filing responsibilities set forth in New Mexico law and the regulations of the office of the State Engineer, b) filing applications on behalf of the Trustee for changes in place or purpose of use of the Trust Water Rights with the Office of the State Engineer, and c) providing legal counsel to the Trustee in any matter or proceeding in which in the judgment of the Trustee there is a unity of interest as between NMED, Chino and the Trustee. Any delegation which the Trustee shall make pursuant to this paragraph shall be (a) in writing with notice to NMED and (b) revocable by the Trustee in its sole discretion.

(e) Petition the Office of the New Mexico State Engineer. The Trustee shall have the power to file such petitions, applications and notices with the New Mexico State Engineer's Office as he may deem appropriate and to take any other administrative steps reasonably necessary to protect and defend the Trust Water Rights against forfeiture or abandonment, provided the Trustee takes no action to impair Chino's rights under the 2003 Use Agreement.

(f) Consideration of DP-1340. In carrying out his fiduciary responsibilities and accomplishing the environmental remediation purposes of the Trust, the Trustee shall have the right and the power to consider DP-1340 as it may be amended from time to time and to rely upon DP-1340 as authoritative guidance and advice to the Trustee.

(g) Reconveyance to Chino. The Trustee shall have the power to reconvey or

transfer to Chino particular assets from the Trust Estate including certain of the Trust Water Rights, in the event of a written instruction from NMED or a declaration of a court of competent jurisdiction that certain of the Trust Water Rights are no longer necessary to accomplish the objectives of DP-1340.

(h) Employ Advisors. The Trustee shall have the power to employ attorneys, hydrologists and other consultants as may be necessary from time to time to carry out the purposes of the Trust. Notwithstanding the preceding sentence, in the interest of the efficient administration of the Trust, the Trustee may from time to time accept the services of attorneys and other consultants employed by Chino or NMED, as the case may be, unless the Trustee concludes that a conflict exists between the interests of the Trust and Chino or NMED sufficient to justify the retention of independent advisors.

(i) No Power to Sell Without Consent. Except as otherwise provided herein, the Trustee shall have no power to sell, pledge, lease, encumber or transfer the Trust Water Rights without the advance written consent of both Chino and NMED.

(j) Inform Chino and NMED. The Trustee shall have the power and the duty to apprise Chino and NMED in connection with any aspect of the business of the Trust that may affect the Trust's right and title in and to the Trust Water Rights, including without limitation anything that would adversely affect the Trustee's ability to cause the Trust Water Rights to be used to accomplish the objectives of DP-1340.

(k) Trustee Records and Reports. The Trustee shall keep or cause to be kept and maintained adequate books and records reflecting all income and principal transactions, which books and records shall be open at all reasonable times for inspection by Chino, NMED and their duly authorized representatives. The Trustee shall furnish statements to Chino and NMED at least as often as annually. The Trustee shall furnish to Chino and NMED a copy of the annual federal income tax return for the Trust within thirty (30) days after such return is filed with the Internal Revenue Service. The Trustee shall maintain a complete file concerning all matters affecting the Trust Water Rights commencing with the dates of transfer of the Water Rights into Trust.

(l) Valuation and Trust Tax Returns. The Trustee shall have no obligation to do valuations of the Trust Estate or prepare and file tax returns on behalf of the Trust except as required by the Internal Revenue Code of 1986, as amended, and the applicable laws of the State of New Mexico.

(m) Fiduciary Responsibilities. Unless otherwise provided herein, the Trustee, as a fiduciary, shall be subject to and shall perform all duties in accordance with all New Mexico rules of law relating to fiduciaries and Trustees as they may be amended from time to time.

(n) Liability of Third Parties. No persons paying money or delivering any property to any Trustee need see to its application.

(o) Reliance by Trustee. Except as otherwise specifically provided in this Agreement, the Trustee may rely upon any notice, certificate, affidavit, letter, facsimile, or other paper or documents believed by the Trustee to be genuine, or upon any evidence deemed by the Trustee to be sufficient in making any payment or distribution hereunder. The Trustee shall incur no liability for any payment or distribution made in good faith and without actual notice or knowledge of a change, condition, or status affecting any person's interest in the trust.

ARTICLE 5
ANNUAL REPORTS

5.1 Annual Reports from Chino and NMED. To assist the Trustee in the performance of his duties, Chino shall and NMED may submit separate annual reports to the Trustee describing significant developments, new activities, or changed circumstances affecting the beneficial use of the Trust Water Rights under the 2003 Use Agreement, any major developments in connection with implementation of DP-1340, any significant regulatory developments, and any litigation or quasi judicial administrative proceeding that may bear upon the Trust Water Rights.

5.2. Reliance. The Trustee shall be entitled to rely upon the written representations of Chino and NMED in carrying out his fiduciary duties to the beneficiaries of the Trust.

ARTICLE 6
TERMINATION OF TRUST

6.1 Termination of Trust. The Trust shall terminate upon:

(a) upon written certification by the NMED that the objectives of DP-1340 or any succeeding discharge permit have been accomplished or that the objectives of DP-1340 or any succeeding discharge permit do not require the continuation of the Trust, or;

(b) upon certification by a court of competent jurisdiction to the same effect or;

(c) such earlier date, if any, to the extent it is required by the New Mexico Statutory Rules Against Perpetuities.

Upon the termination of the Trust, the Trustee shall distribute the assets of the Trust to Chino if it is then in existence and if not then to its successor in interest. If Chino dissolves prior to the termination of the Trust, Chino shall notify the Trustee of the successor in interest of the Trust Estate.

ARTICLE 7
APPOINTMENT OF TRUSTEES

7.1 Power of Appointment. Chino shall have the power to appoint the initial trustee with NMED approval.

7.2 Initial Trustee. _____ is hereby appointed to serve as the initial trustee of the Trust.

7.3 Successor Trustee. If for any reason or at any time the initial trustee, or a successor trustee is unwilling or unable to act, such Trustee shall appoint a successor trustee as follows:

(a) The Trustee shall notify Chino and NMED of the Trustee's decision to resign not less than 90 days in advance of the Trustee's proposed resignation.

(b) Chino and NMED shall within 45 days separately submit to the Trustee the names of one or more successor trustee candidates licensed to practice law in New Mexico with experience in water law and/or environmental law and who has not been employed in any capacity by Chino or NMED during the two preceding years.

(c) The Trustee shall select a successor trustee from the candidates submitted by Chino and NMED. If the lists reflect one or more consensus candidates, the Trustee shall select from among the consensus candidates. Otherwise, the Trustee shall select his successor from among the candidates proposed, using his or her best judgment and taking into consideration the qualifications of the candidates and any reasoned objections that may have been expressed in writing by NMED or Chino.

(d) If a Trustee is removed or resigns or is unable to serve because of death or disability prior to the appointment of a successor trustee, then Chino or NMED may apply to the District Court in Santa Fe County or Bernalillo County for the appointment of a successor trustee.

ARTICLE 8
COMPENSATION OF TRUSTEE

8.1 Compensation. The Trustee shall be entitled to reasonable compensation for services in administering, managing and distributing the Trust Estate and to reimbursement for expenses; provided, however, that the Trustee may charge all or any part of the Trustee's regular annual compensation against the principal of the Trust, regardless of any rule of law or statute to the contrary, if there is not enough income to pay such compensation. It is the intention of Chino and NMED that the income from the 2003 Use Agreement shall be sufficient to meet the reasonable expenses of the Trust and compensation for services rendered by the Trustee. Responsibility for the expenses and compensation of the Trustee shall rest with Chino.

ARTICLE 9
RESIGNATION OR REMOVAL OF TRUSTEE

9.1 Resignation of Trustee. In the event that any Trustee desires to resign, such Trustee shall have the right to resign at any time by giving 90 days written notice to Chino and NMED, provided, however, that no such resignation by a Trustee shall become effective until the date on which a written acceptance by a successor trustee is delivered to the resigning Trustee.

9.2 Removal of Trustee. Chino or NMED may petition the District Court of Santa Fe County or Bernalillo County, New Mexico, for removal of any Trustee for failure to administer the Trust expeditiously for the benefit of the beneficiaries, or for other failure to perform the general duties of a trustee in accordance with the standards of care and performance as set forth herein; provided, however, that the removal of the Trustee shall not become effective until the date on which a written acceptance by a Successor Trustee is delivered to the removed Trustee or said District Court.

(a) Conflict of Interest. It shall be a conflict of interest for the Trustee to provide professional services to either Chino or NMED in connection with any matter related or unrelated to the business and purposes of the Trust, except with the express written consent of both Chino and NMED.

ARTICLE 10
MISCELLANEOUS PROVISIONS

10.1 The Trustee. Whenever in this Agreement reference is made to "the Trustee," such reference shall be deemed to include not only the initial Trustee, but also any and all successor trustees at any time qualified and acting hereunder, and all rights and powers given in this Agreement to the Trustee shall be vested in such successor Trustees.

10.2 Additional References. Whenever in this Agreement referenced is made to "DP-1340," such reference shall be deemed to include not only the initial permit, but also any subsequent changes therein or amendments and modifications thereof. Likewise, references to the "2003 Use Agreement" shall be deemed to include any and all extensions and renewals thereof, as well as any amendments or modifications.

10.3 Spendthrift Clause. No interest in the Trust established herein shall be transferable or assignable or be subject to the claims of any beneficiary to the Trust or its creditors.

10.4 Binding Effect. This Agreement shall extend to and be binding upon the heirs, executors, administrators, legal representatives, assignees, and successors, respectively of Chino, NMED and the Trustee.

10.5 Captions. The captions and paragraph headings of this Agreement are not necessarily descriptive, or intended or represented to be descriptive of all the provisions thereunder, and in no manner shall such captions and paragraph headings be deemed or interpreted to limit the provisions of this Agreement.

10.6 Numbers and Genders. Whenever used herein, unless the context shall otherwise provide, the singular number shall include the plural; the plural the singular, and the use of any gender shall include all genders.

10.7 Severability. If any provision of this Agreement, or the application of such provisions to any person or circumstances, shall be held invalid, the remainder of this Agreement, or the application of such provisions to persons or circumstances other than those to which it is held invalid shall not be affected thereby.

10.8 Governing Law. The validity, construction, and effect of this Agreement, the administration thereof and the rights and obligations of the parties and the Trustee shall be governed by the laws of the State of New Mexico. This trust shall be construed in accordance with the statutes of New Mexico governing irrevocable trusts as said statutes may be amended from time to time.

IN WITNESS WHEREOF, the parties have executed this Chino Mines Company Water Rights Trust Agreement on the date first above written.

Chino Mines Company,
a New Mexico General Partnership

By:_____

Title:_____

New Mexico Environment Department

By_____
Ron Curry

Title: Secretary

ACKNOWLEDGMENT

STATE OF NEW MEXICO
COUNTY OF SANTA FE

This instrument was acknowledged before me on _____, 2003, by _____, on behalf of Chino Mines Company, a New Mexico General Partnership.

(Seal)

_____
Notary Public

My commission expires:_____

ACKNOWLEDGMENT

STATE OF NEW MEXICO
COUNTY OF SANTA FE

This instrument was acknowledged before me on _____, 2003, by _____, Secretary of the New Mexico Environment Department, on behalf of the New Mexico Environment Department.

(Seal)

_____
Notary Public

My commission expires:_____

ACCEPTANCE BY TRUSTEE

_____ hereby accepts appointment as Trustee of the Chino Mines Company Water Rights Trust under agreement dated _____, 2003.

Trustee

By:_____
Name:_____
Title:_____

Exhibit B
AGREEMENT FOR USE OF WATER RIGHTS
Pursuant to Chino Mines Company Water Rights Trust Agreement

This Agreement for Use of Water Rights ("2003 Use Agreement") is entered into this _____ day of _____, 2003, by and between _____, Trustee of the Chino Mines Company Water Rights Trust ("Trust") dated _____, and Chino Mines Company ("Chino"), with the approval of the New Mexico Environmental Department ("NMED").

RECITALS

Whereas, Chino is responsible for the operation, management and maintenance of the Chino Mine ("the Mine");

Whereas, the Trust holds title to certain water rights formerly owned by Chino ("Trust Water Rights") labeled Exhibit A to the Trust Agreement and incorporated herein by reference;

Whereas, Chino wishes to put the Trust Water Rights to beneficial use in connection with its ongoing mining operations at the Chino mine and other purposes; and

Whereas, the Trust Agreement specifies that the Trustee and Chino shall enter into an agreement to provide for the continuing use of the Trust Water Rights by Chino at the Mine for mining purposes, including all purposes required by or related to the conditions set forth in the supplemental discharge permit for closure, DP-1340 ("DP-1340), as well as any other purpose not in conflict with the Trust Agreement attached as and DP-1340 issued by NMED, and incorporated herein by reference, or applicable law.

Now therefore, the Trustee and Chino agree as follows.

I. Use of Water

A. Grant of Use. The Trust grants to Chino the right consistent with the laws of New Mexico:

i. to put the Trust Water Rights to beneficial use in connection with its continuing mining operations at the Chino mine near Hurley, New Mexico for the duration of mining activity at the mine,

ii. to use the Trust Water Rights to implement DP-1340,

iii. to put the Trust Water Rights to beneficial use for any other purpose not in conflict with the ground water remediation and water treatment provisions of DP-1340, and

iv. to use, sell, convey, exchange or transfer the treated effluent from Chino's water treatment facility.

B. Applications Permissible. The Trust expressly grants to Chino the right to request in accordance with applicable law changes in use, purpose or point of diversion of the Trust Water Rights provided any such action by Chino does not conflict with the ground water remediation and water treatment obligations of Chino as set forth in DP-1340.

C. Lawful Purpose. At all times the Trust Water Rights shall be used by Chino in accordance with the laws of the State of New Mexico and all applicable rules and regulations of the New Mexico Office of the State Engineer.

II. No Conveyance of Any Right, Title or Interest

This 2003 Use Agreement conveys no right, title or interest in the Trust Water Rights to Chino other than the limited right to beneficially use the Trust Water Rights as set forth in this agreement. The Trust shall remain the owner of the Trust Water Rights and retains all right title and interest to the Trust Water Rights.

III. Maintenance of the Trust Water Rights

A. The Trustee shall retain the ultimate authority to protect and preserve the Trust Water Rights as set forth in the Trust Agreement.

B. Chino shall be responsible for placing the Trust Water Rights to beneficial use in its mining operations at the Mine and to fulfill the obligations of DP-1340.

C. Chino shall maintain the Trust Water Rights in good standing and shall be responsible to timely make any and all necessary filings with the Office of the State Engineer including but not limited to meter readings, extensions of time, or any other required filing. Chino shall provide copies of all such filings to the Trustee.

IV. Trustee's Delegation to Chino

A. In the event of judicial or administrative proceedings initiated by others to contest, challenge or otherwise affect the Trust Water Rights, the Trustee hereby delegates to Chino primary responsibility for defending and protecting in such proceedings the interests of the Trust. Similarly, should it become necessary to initiate a judicial or administrative proceeding, after consultation, the Trustee delegates to Chino responsibility for commencing such proceedings. Nothing herein shall limit the Trustee's right to revoke this delegation should the Trustee conclude that the Trust's interest would be better served by employing independent counsel.

B. Chino will keep NMED and the Trustee fully informed of any judicial or administrative proceeding affecting the Trust Water Rights.

V. Water Use Fee

A. Payment. In consideration of the water use rights provided for herein, Chino shall make an annual payment to the Trust of $5,000 per annum for the initial term of the Trust ("Water Use Fee"). The first year payment shall be made upon execution of this Agreement and thereafter on each anniversary date of the execution of this Agreement.

B. Water Use Fee Not to Exceed Reasonable Expenses of the Trustee. It is the intention of the parties that Chino assume the administrative burden of compliance with the rules and regulations of the Office of the State Engineer. It is understood, however, that the Trustee will incur expenses each year in connection with the exercise of his fiduciary duties and that, through the mechanism of this Water Use Fee, Chino shall be responsible for the reasonable expenses of the Trustee.

C. Payments to Accrue. Any portion of the Water Use Fee not required to satisfy the current expenses of the Trustee shall accrue on the books of the Trust.

D. Adjustments. If and when the accrual amount reaches $20,000, Chino and the Trustee shall negotiate a reduction in the annual Water Use Fee for subsequent years. Likewise, if the reasonable expenses of the Trustee shall average more than $5,000 per year, Chino and the Trustee shall negotiate an increase in the annual Water Use Fee.

E. Renewals. The Water Use Fee for any extension or renewal of this Agreement shall be negotiated between Chino and the Trustee and shall reflect the reasonably anticipated expenses of the Trustee.

VI. Default

This agreement may be terminated only upon a) the consent of the parties or b) Chino's default under this Agreement, after written notice and a reasonable opportunity to cure. Either of the following shall constitute an act of default:

A. A determination by a court of competent jurisdiction that Chino's use of the Trust Water Rights is in conflict with the obligations of Chino as set forth in DP-1340 or that Chino must forfeit the financial assurance required thereunder,

B. Any act or failure to act by Chino that materially impairs the right, title and interest of the Trust in and to the Trust Water Rights.

VII. Recordation

This 2003 Use Agreement shall be recorded with the New Mexico Office of the State Engineer.

VIII. Term

This 2003 Use Agreement shall become effective on the date of execution by both parties and is subject to an initial term of six years. The agreement shall be automatically renewed by Chino for one or more successive ten year terms, when Chino signifies to the Trustee in writing prior to the expiration of the agreement its intention to renew and be bound by the terms of this agreement for an additional ten year term.

IX. Miscellaneous

A. Definitions. All defined terms used in this 2003 Use Agreement shall have the same meaning as the defined terms in the Chino Mines Company Water Rights Trust Agreement dated _____, 2003.

B. Binding Effect. This Agreement shall extend to and be binding upon the heirs, executors, administrators, legal representatives, and successors, respectively of Chino and the Trustee.

C. Governing Law. The validity, construction, and effect of this Agreement, the administration thereof, and the rights and obligations of the parties and the Trustee shall be governed by the laws of the State of New Mexico.

D. Third Party Beneficiary. The Trust and Chino intend that the New Mexico Environment Department shall be a third party beneficiary under this 2003 Use Agreement.

In witness whereof, the parties have executed this 2003 Use Agreement on the date first above written.

Chino Mines Company,
a New Mexico General Partnership

By:_____
Name:_____

Title:_____

Chino Mines Company Water Rights Trust

By_____
Name:_____

Title: Trustee_____

EXHIBIT 2
TABLE 9.1

NEW MEXICO CLOSURE PLAN - CHINO
PROJECT CASH FLOW
FEBRUARY 9, 2002

Sum of amount	TYPE								
YEAR	dist	maint	pits	res	st piles	tails	wtp	wtpC	Grand Total
y01						$8,300,138	$4,574,803	$13,337,639	$23,854,643
y02		$180,939				$5,811,032	$4,690,986		$10,682,957
y03		$180,939		$550,946		$6,028,631	$3,122,950		$10,472,951
y04		$180,939		$550,946		$5,746,667	$2,375,914		$9,443,951
y05	$520,751	$180,939		$550,946		$5,734,471	$2,375,914		$9,952,506
y06	$930,842	$180,939		$550,946	$8,355,677	$4,195,954	$2,375,914		$17,179,757
y07	$930,842	$180,939			$8,355,677	$139,369	$2,363,322		$11,970,150
y08	$930,842	$180,939			$12,363,122	$139,369	$2,360,571		$15,974,844
y09	$930,842	$180,939	$781,067		$11,662,329	$139,369	$2,357,820		$16,052,366
y10	$930,842	$180,939			$12,192,589	$139,369	$2,355,598		$15,799,338
y11	$930,842	$180,939			$11,481,528	$139,369	$2,355,598		$15,088,276
y12	$403,582	$180,939			$5,373,469	$139,369	$2,351,683		$8,449,042
y13	$45,763	$180,939			$103,291	$139,369	$2,346,604		$2,815,967
y14	$45,763	$180,939			$103,291	$139,369	$2,337,610		$2,806,973
y15	$45,763	$180,939			$103,291	$139,369	$2,332,742		$2,802,105
y16	$45,763	$180,939			$103,291	$139,369	$2,321,209		$2,790,572
y17	$45,763	$180,939			$103,291	$139,369	$2,320,468		$2,789,831
y18	$45,763	$180,939			$103,291	$139,369	$2,318,669		$2,788,032
y19	$45,763	$180,939			$103,291		$2,315,072		$2,645,066
y20	$45,763	$180,939			$103,291		$2,311,580		$2,641,574
y21	$45,763	$180,939			$103,291		$2,307,982		$2,637,976
y22	$45,763	$180,939			$103,291		$2,270,207		$2,600,201
y23	$45,763	$180,939			$103,291		$2,270,207		$2,600,201
y24	$45,763	$180,939			$103,291		$2,270,207		$2,600,201
y25		$180,939					$2,270,207		$2,451,147
y26		$180,939					$2,270,207		$2,451,147
y27		$180,939					$2,270,207		$2,451,147
y28		$180,939					$2,270,207		$2,451,147
y29		$180,939					$2,270,207		$2,451,147
y30		$180,939					$2,270,207		$2,451,147
y31		$180,939					$2,270,207		$2,451,147
y32		$180,939					$2,270,207		$2,451,147
y33		$180,939					$2,270,207		$2,451,147
y34		$180,939					$2,270,207		$2,451,147
y35		$180,939					$2,270,207		$2,451,147
y36		$180,939					$2,270,207		$2,451,147
y37		$180,939					$2,270,207		$2,451,147
y38		$180,939					$2,270,207		$2,451,147
y39		$180,939					$2,270,207		$2,451,147
y40		$180,939					$2,270,207		$2,451,147
y41		$180,939					$2,270,207	$640,881	$3,092,028
y42		$180,939					$2,270,207		$2,451,147
y43		$180,939					$2,270,207		$2,451,147
y44		$180,939					$2,270,207		$2,451,147
y45		$180,939					$2,270,207		$2,451,147
y46		$180,939					$2,270,207		$2,451,147
y47		$180,939					$2,270,207		$2,451,147
y48		$180,939					$2,270,207		$2,451,147
y49		$180,939					$2,270,207		$2,451,147
y50		$180,939					$2,270,207		$2,451,147
y51		$180,939					$2,270,207	$1,650,085	$4,101,231
y52		$180,939					$2,270,207		$2,451,147
y53		$180,939					$2,270,207		$2,451,147
y54		$180,939					$2,270,207		$2,451,147
y55		$180,939					$2,270,207		$2,451,147
y56		$180,939					$2,270,207		$2,451,147
y57		$180,939					$2,270,207		$2,451,147
y58		$180,939					$2,270,207		$2,451,147
y59		$180,939					$2,270,207		$2,451,147
y60		$180,939					$2,270,207		$2,451,147
y61		$180,939					$2,270,207		$2,451,147
y62		$180,939					$2,270,207		$2,451,147
y63		$180,939					$2,270,207		$2,451,147
y64		$180,939					$2,270,207		$2,451,147
y65		$180,939					$2,270,207		$2,451,147
y66		$180,939					$2,270,207		$2,451,147
y67		$180,939					$2,270,207		$2,451,147
y68		$180,939					$2,270,207		$2,451,147
y69		$180,939					$2,270,207		$2,451,147
y70		$180,939					$2,270,207		$2,451,147
y71		$180,939					$2,270,207		$2,451,147

EXHIBIT 2
TABLE 9.1

NEW MEXICO CLOSURE PLAN - CHINO
PROJECT CASH FLOW
FEBRUARY 9, 2002

Sum of amount	TYPE								
YEAR	dist	maint	pits	res	st piles	tails	wtp	wtpC	Grand Total
y72		$180,939					$2,270,207		$2,451,147
y73		$180,939					$2,270,207		$2,451,147
y74		$180,939					$2,270,207		$2,451,147
y75		$180,939					$2,270,207		$2,451,147
y76		$180,939					$2,270,207		$2,451,147
y77		$180,939					$2,270,207		$2,451,147
y78		$180,939					$2,270,207		$2,451,147
y79		$180,939					$2,270,207		$2,451,147
y80		$180,939					$2,270,207		$2,451,147
y81		$180,939					$2,270,207	$640,881	$3,092,028
y82		$180,939					$2,270,207		$2,451,147
y83		$180,939					$2,270,207		$2,451,147
y84		$180,939					$2,270,207		$2,451,147
y85		$180,939					$2,270,207		$2,451,147
y86		$180,939					$2,270,207		$2,451,147
y87		$180,939					$2,270,207		$2,451,147
y88		$180,939					$2,270,207		$2,451,147
y89		$180,939					$2,270,207		$2,451,147
y90		$180,939					$2,270,207		$2,451,147
y91		$180,939					$2,270,207		$2,451,147
y92		$180,939					$2,270,207		$2,451,147
y93		$180,939					$2,270,207		$2,451,147
y94		$180,939					$2,270,207		$2,451,147
y95		$180,939					$2,270,207		$2,451,147
y96		$180,939					$2,270,207		$2,451,147
y97		$180,939					$2,270,207		$2,451,147
y98		$180,939					$2,270,207		$2,451,147
y99		$180,939					$2,270,207		$2,451,147
y100		$180,939					$2,270,207		$2,451,147
Grand Total	$7,058,545	$17,912,998	$781,067	$2,203,786	$71,023,886	$37,489,323	$233,919,376	$16,269,486	$386,658,465

Note:

dist = Capital cost for other disturbed areas
Cost of re-seeding at 5% of the revegetation cost in years 13 through 24

maint = Closeout (earthwork) maintenance

pits = Capital cost for closeout of open pits

res = Capital cost for reservoirs/dams/impoundments

st piles = Capital cost for closeout of the stockpiles
Stockpile outslopes outside of pit capture zone at 2.5 to 1 except for West Stockpile at 2 to 1.
Cost of re-seeding at 5% of the revegetation cost in years 13 through 24

tails = Capital cost for the closeout of the tailings ponds
Capital cost of the Lake One water treatment plant included in year 1
Cost of re-seeding at 5% of the revegetation cost years 7 through 18

wtp = Operating and Maintenance cost for the Chino water treatment plant @ 1200 gpm for years 2 through 100
Operating and Maintenance cost for the Lake One water treatment plant for years 2 through 100
Chino water treatment plant influent with constant chemistry through duration of treatment
Lake One water treatment plant influent chemistry improves after year 6 of schedule
O&M cost includes power at price of $ 0.0648 per kWhr
$ 0.0613 in operating cost estimate tables plus 5.8125% GRT
Lime cost at $65.0 per ton
Water sampling cost based on 75 sample locations and sample interval per detailed schedule of 2-1-02
Includes cost of electrical procurement contractor for years 1 through 100
Includes cost of stand-by electric power generator O&M for years 1 through 100
Includes cost of electric substation O&M for years 1 through100
Includes cost of water evaporation system by recirculation plan for years 1 through 3

wtpC = Capital cost for the Chino water treatment plant
Replacement of the transformer & switch in years 41 & 81
Stand-by Generator installation cost in year 1 and replacement in year 51.

Gross Receipts tax at rate of 5.8125% included on all costs

EXHIBIT 3
NMED Addendum to Cost Estimate

From the "Stockpiles Pushdown" table, Section 7 of CCP

Segment	Section	Dec 20 $ (2.5:1)	Feb 11 $ (2:1)	Difference
W1	A	$ 439,843	$ 116,112	$ 323,731
W3	D	$ 539,043	$ 374,769	$ 164,274
W4	E	$ 780,558	$ 104,455	$ 676,103
			Subtotal	$ 1,164,108
			Indirects	$ 551,450
			Total	$ 1,715,558

Cost to Maintain 24 hour operation at Water Treatment plant
4 operations Labor instead of 3 as presented in Table 8.2p cost est. 2/11/02
for year 22 following cessation of Operation to year 100.

Item	Annual Increase	No. Years	Feb 11 Cost	Total inc. 79 yrs
Operations Labor	$26,000	79	$0	$2,054,000
Overtime	$1,900	79	$0	$150,100
Benefits	$7,800	79	$0	$616,200
			Subtotal	$2,820,300
			GRT = 5.8125%	$163,930
			Total	$2,984,230