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 SCOTT – E

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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William C. Olson, Bureau Chief

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Deputy Secretary

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CHINO MINES COMPANY
ENVIRONMENT, LAND & WATER DEPT

20100907-007

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

September 1, 2010

Timothy E. Eastep, Manager
Environment, Land and Water
Chino Mines Company
Freeport-McMoRan Gold and Copper, Inc.
210 Cortez Avenue, Box 7
Hurley, NM 88043

RE: Discharge Permit Amendment, DP-484, Chino Mine: Discharge of Impacted Storm Water from the Lower Lined Pond to the Termination Tank

Dear Mr. Eastep:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the request from Freeport – McMoRan Chino Mines Company, Inc. (Chino) titled *Lower Lined Pond* (Request), dated August 26, 2010. In the Request, Chino proposes to amend the January 14, 2005 Discharge Permit Renewal and Modification (DP-484) to allow impacted storm water from the Lower Lined Pond (DP-214) to be discharged directly to the Termination Tank.

The facilities permitted under DP-484 are located approximately 5 miles south of Hurley in Sections 19, 20, 21, 28, 29, and 30 of T19S, R12W in Grant County.

Background

DP-484 covers approximately 1,600 acres, including Tailing Pond 7, the Interceptor Well System, the Termination Tank, the 750 Tank, the Decant Line from Tailing Pond 7 to Axiflo Lake, and the Pipeline from the Termination Tank to Tailing Pond 7. Tailing Pond 7 receives up to 24,500,000 gallons per day (gpd) of tailings slurry, up to 1,000,000 gpd of domestic wastewater from the Tri-City sewage collection system, up to 300,000 gpd of domestic wastewater from the Hurley area, and up to 1,440,000 gpd of treated mine water (including domestic wastewater from the Ivanhoe Concentrator). During upset conditions, Axiflo Lake (DP-214) may receive discharges permitted for Tailing Pond 7.

The Amendment of DP-484 is described as follows.

The Lower Lined Pond collects impacted storm water from Lake One. That water is currently permitted to be pumped to Axiflo Lake at a rate of 5,000 gallons per minute (gpm). The Request proposes to bypass Axiflo Lake and deliver Lower Lined Pond impacted storm water directly to the Termination Tank for discharge to Tailing Pond 7.

Pursuant to the Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC), amendment of DP-484 is hereby approved. In approving this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.2.3109.C NMAC have been met.

Permit Conditions

The approved amendment to DP-484 is described under Condition 3 (Flow Description), Subpart A, which shall read as follows:

3.A The Termination Tank, which discharges via gravity to Tailing Pond 7, may receive flows from the following areas.

1) Up to 24.5 million gpd of tailing slurry from the Ivanhoe Concentrator;
2) Up to 2.6 million gpd of treated water from the Metals Recovery Unit (MRU) No. 2;
3) Up to 3,000 gpm from the Southern Hurley-Smelter Stormwater Pond and up to 6,000 gpm from the Northern Hurley-Smelter Stormwater Pond during upset conditions;
4) Up to 1 million gpd of treated effluent from the Tri-City sewage collection system;
5) Up to 300,000 gpd of untreated domestic wastewater from the Town of Hurley and Hurley Smelter areas;
6) Up to 1,000 gpm of mine waste water from the Ivanhoe Concentrator;
7) Pursuant to emergency response plans for high intensity rainfall events, up to 6,000 gpm from Reservoir 17 to the Tailings Thickeners, where the water may be discharged to Tailing Pond 7;
8) Up to 5,000 gpm of impacted storm water from the Lower Lined Pond (Lake One).

Other Requirements

The terms and conditions contained herein and those in DP-484 shall be complied with by Chino and are enforceable by NMED pursuant to 20.6.2.3104 NMAC and NMSA 1978 74-6-5 and 75-6-10. Please be advised that this Discharge Permit Amendment does not relieve Chino of liability should its operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations.

Period of Approval

Pursuant to 20.6.2.3109.H.4 NMAC, the term of this Discharge Permit Amendment for DP-484 shall be the same as the remaining term of DP-484. Approval of this Discharge Permit Amendment does not relieve Chino of its responsibility to comply with the Water Quality Act

(WQA), the WQCC Regulations, and any other applicable federal, state, and/or local laws and regulations.

If at any time in the future Chino intends to change the disposition of any discharge relating to this amendment, Chino is required to notify NMED prior to changing the discharge.

Please contact Greg Huey of the Mining Environmental Compliance Section at (505) 827-1046 with any questions.

Sincerely,

Mary Ann Menetrey
Ground Water Quality Bureau

MAM:gmh

cc: William Olson, Bureau Chief, GWQB
Chris Eustice, Permit Lead, MMD
Sally Smith, GRIP

→ Neal Hall

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JAN 26 2005

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2-0058211-002

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

January 14, 2005

Richard Mohr, General Manager
Chino Mines Company
210 Cortez St.
Hurley, NM 88043

RE: Discharge Permit Renewal and Modification, Tailing Pond 7 DP-484

Dear Mr. Mohr:

The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit, DP-484 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.

The 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 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 20.6.2.3109.H.4 NMAC, the term of the Discharge Permit shall be five years from the date of issuance and will expire on **January 14, 2010**. You must submit an application for renewal at least 120 days before the permit expiration date.

Sincerely,

William C. Olson
Chief, Ground Water Quality Bureau
New Mexico Environment Department

enc:

1) Discharge Permit

xc: William Van Dran, CEGEP (1)
Rod Ventura. NMELC
Sally Smith, GRIP (1)
Karen Garcia, MMD (1)
District III Office, Las Cruces (1)
NMED Silver City Field Office (1)
Mary Ann Menetrey, Program Manager, MECS-GWQB (1)
Administrative Record Files: DP-484 (1)

DISCHARGE PERMIT RENEWAL AND MODIFICATION
CHINO MINES COMPANY, DP-484
TAILING POND 7
January 14, 2005

I. INTRODUCTION

The New Mexico Environment Department (NMED) renews and modifies this Discharge Permit, DP-484, 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.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control discharges of water contaminants from the Tailing Pond 7 at the Chino Mine 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 and surface water. In issuing this Discharge Permit, NMED has determined that the requirements of 20.6.2.3109.C NMAC have been met.

DP-484, as issued in the last renewal dated June 30, 1993 for the Tailing Pond 7 facility, is briefly described as follows:

> Chino may discharge the following to Tailing Pond 7: Up to 24.5 million gallons per day of tailings slurry, up to one million gallons per day (gpd) of domestic wastewater from the Tri-City sewage collection system, up to 300,000 gpd of domestic wastewater from the Hurley area, and up to 1,000 gallons per minute of treated mine water (which includes domestic wastewater from the Ivanhoe Concentrator). Tailing Pond 7 covers 1,563 acres and is located 5 miles south of Hurley in Sections 19, 20, 21, 28, 29, and 30 of T19S, R12W, Grant County.

The modification to DP-484 is briefly described as follows:

> The termination tank receives the tailing slurry from the concentrator and transfers tailing material for deposition. The termination tank, the pipelines from the termination tank to Tailing Pond 7, and the decant water pipeline from Tailing Pond 7 to Axiflo Lake are additional components incorporated into DP-484 as part of this modification. The pipelines from the termination tank to Tailing Pond 7 and the termination tank are located in Sections 7, 8, and 17 of T19S, R12W, Grant County. The decant water pipeline from Tailing Pond 7 to Axiflo Lake is located in Sections 8, 9, 16, 20, and 21 of T19S, R12W, Grant County. The modification of DP-484 also includes the following discharges to the termination tank: up to 300,000 gpd of domestic wastewater from Hurley and the Smelter septic system; up to 2.6 million gpd of treated water from the Metal Recovery Unit (MRU) No. 2 at the Hurley Smelter; and stormwater from the Smelter area. Under upset conditions, Chino may discharge up to 6,000 gpm from Reservoir 17 into the Ivanhoe Concentrator thickener tanks which discharges to the tailings pipelines, up to 3,000 gpm from the Southern Hurley Stormwater Pond and up to 6,000 gpm from the Northern Hurley Smelter

Stormwater Pond. The modification also includes the discharge of up to 5 million gpd of contaminated groundwater from the interceptor well system located down gradient of Tailing Pond 7, which is pumped back onto Tailing Pond 7.

Quantity, Quality and Flow Characteristics of the Discharge:

Discharges from Tailing Pond 7 and associated facilities move directly or indirectly into ground water. The tailing slurry exceeds domestic water supply standards under Section 20.6.2.3103.B NMAC for the constituents sulfate and total dissolved solids (TDS). The tailing slurry and Pond 7 water may exceed water quality standards under section 20.6.2.3103.A for selenium and section 20.6.2.3103.C for molybdenum. The domestic wastewater contains nitrogen compounds and the treated mine water contains sulfate and TDS above water quality standards. In addition to process waters that exceed water quality standards, the tailing material contains sulfides that have the potential to generate acid and mobilize contaminants.

Characteristics of Ground Water:

In the vicinity of Tailing Pond 7 the depth to ground water ranges from 50 to 200 feet below ground surface, and the TDS concentration is approximately 400 milligrams per liter (mg/l).

Activities That Produce the Discharge:

When in operation, copper ore is delivered to the Ivanhoe Concentrator, which is located adjacent to the Open Pit. The ore is crushed and mixed with water, and copper and molybdenum concentrates are produced via conventional froth and floatation processes. The concentrator also produces a thickened tailings slurry with an average solids content of approximately 48 percent solids by weight that is transferred by pipeline from the Ivanhoe Concentrator to a distribution ("termination") tank located 9 miles south at the Tailings Impoundments. From the distribution tank the slurry is transferred to the surface of Tailing Pond 7. Tailing Pond 7 is currently the only active Tailing Impoundment at the Chino Mine. The decanted water from Tailing Pond 7 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 tailing water discharged to Tailing Pond 7 is approximately 15,600,000 gpd. Tailing Pond 7 is unlined, therefore, some seepage moves 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 and 9,900 gpd of domestic wastewater from the Town of Hurley and the Hurley Smelter sewage systems are commingled with the tailing and disposed of on Tailing Pond 7. Process waters from the Hurley Smelter are managed to remove and recycle metals, treated with lime and/or magnesium oxide, than discharged to Tailing Pond 7.

During concentrator operation, an estimated 7.78 million gpd of decanted process water from Tailing Pond 7 and 4.32 million gpd of fresh make-up water from wells are stored in Axiflo Lake prior to pumping to the concentrator. South of Tailing Pond 7, the Seepage Interceptor System pumps approximately 2.16 million gpd of contaminated ground water to the top of Tailing Pond 7 in the decant area, where the water may be pumped to Axiflo Lake. Contaminated ground water from tailing Pond 7 exceeds water quality standards under the WQCC regulations under Section 20.6.2.3103 NMAC for TDS and sulfate.

Storm water runoff from the surface of portions of Tailing Ponds 6E, 6W and 7 is discharged to the Tailing Pond 7 decant area.

General:

The Discharge Plan consists of letters and documents submitted by Chino to NMED dated November 7, 1997, June 19, 1998, and January 5, 2001. In addition, the Discharge Plan includes information and materials submitted as part of the original plan approved on October 31, 1988, modified on January 22, 1993, and renewed on June 30, 1993. The discharge shall be managed in accordance with the Discharge Plan as conditioned by this permit.

Pursuant to 20.6.2.3109.E NMAC, NMED reserves the right to modify permit requirements in the event that NMED determines that the requirements of 20.6.2 NMAC are being, or may be, violated or the standards of 20.6.2.3103 NMAC are being, or may be, violated. This may include a determination by NMED that operational practices approved under this Discharge Permit are not protective of ground and surface water quality, and that a modification is necessary to protect the water quality and/or abate water pollution. Permit modifications may include, but are not limited to, lining or relining impoundments, changing discharge locations, changing waste management practices, expanding monitoring requirements, and/or implementing abatement of water pollution.

Issuance of this Discharge Permit does not relieve Chino of its responsibility to comply with all conditions or requirements of the WQA, WQCC Regulations, and any other applicable Federal, State and/or local laws and regulations such as zoning requirements or nuisance orders.

The following abbreviations may be used in this permit:

Abbreviation	Explanation	Abbreviation	Explanation
Chino	Chino Mines Company	NMED	New Mexico Environment Department
gpd	gallons per day	NMSA	New Mexico Statutes Annotated
gpm	gallons per minute	TDS	total dissolved solids
mg/L	Milligrams per liter	WQA	Water Quality Act
NMAC	New Mexico Administrative Code	WQCC	Water Quality Control Commission

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. Chino is discharging effluent or leachate from Tailing Pond 7 and associated facilities so that such effluent or leachate may move directly or indirectly into ground water within the meaning of 20.6.2.3104 NMAC.

2. Chino is discharging effluent or leachate from Tailing Pond 7 and associated facilities so that such effluent or leachate may move into the ground water of the State of New Mexico, which has an existing concentration of 10,000 mg/L or less of total dissolved solids within the meaning of 20.6.2.3101 A NMAC.

3. The discharge from the unlined tailing pond is not subject to any of the exemptions of 20.6.2.3105 NMAC.

4. Chino is required to abate ground water and surface water contamination pursuant to 20.6.2.3107.A(11) and 3109.E(1) NMAC because, the discharges of effluent or leachate from the Chino Mine Facility have contaminated groundwater (of the State of New Mexico which has an existing concentration of 10,000 mg/l or less of TDS and which is at a place of withdrawal for present or reasonably foreseeable future use) above the standards and requirements in 20.6.2.3103 NMAC and Water Quality Standards for Interstate and Intrastate Streams in New Mexico have been and may be violated in surface water due to discharges.

III. PERMIT CONDITIONS

The following conditions shall be complied with by Chino and are enforceable by NMED.

OPERATIONAL PLAN

1. Chino shall implement the following operational plan, including investigations, in accordance with the WQCC Regulations at 20.6.2.3106.C and 3107 to ensure compliance with 20 NMAC Chapter 6, Parts 1 and 2. [20.6.2.3106 and 3107 NMAC]

Design Capacity:

2. Chino shall not exceed the design capacity of the Tailing Impound 7, which consists of a dam maximum height of 230 feet and covers approximately 1,563 acres based on Chino Closure Closeout Plan March, 2001 and Seismic Stability Considerations Woodward Clyde Consultants May 17, 1988 reports.

Flow Description:

3. Chino is authorized to manage discharges as follows:

   A. The Termination Tank, which collects flows and discharges via gravity to Pond 7, may receive flows from the following areas:

      1) Up to 24.5 million gpd of tailing slurry from the Ivanhoe Concentrator;
      2) Up to 2.6 million gpd of treated water from the Metals Recovery Unit (MRU) No. 2;
      3) Up to 3,000 gpm from the Southern Hurley-Smelter Stormwater Pond and up to 6,000 gpm from the Northern Hurley-Smelter Stormwater Pond during upset conditions;
      4) Up to 1 million gpd of untreated domestic wastewater from the Tri-City sewage collection system, until the Tri-City wastewater treatment plant is operational (anticipated start date of January 2007), after which time the flow must be treated effluent;
      5) Up to 300,000 gpd of untreated domestic wastewater from the Town of Hurley and Hurley Smelter areas and;
      6) Up to 1,000 gpm (as in 1993 permit) of mine water from the Ivanhoe Concentrator.
      7) Pursuant to emergency response plans for high intensity rainfall events, Chino may pump up to 6,000 gpm from Reservoir 17 to the Tailings Thickeners, where the water may be discharged to Tailings Pond 7.

      Water collected in the Termination Tank discharges to Tailing Pond 7.

   B. Tailing Pond 7 is an unlined tailings impoundment that may receive flow from the following areas until Tailings Pond 7 has reached its design capacity, or until discharge of tailings to Tailing Pond 7 from the Ivanhoe Concentrator ceases, whichever comes first:

      1) Tailing slurry from the Termination Tank and discharges that may be commingled with tailings as described and not to exceed the flow rates in Condition 3A;
      2) Storm water runoff from Tailing Ponds 6E and 6W which may also include storm water runoff from Tailing Ponds B, C and 4, up to a maximum total volume of approximately

2,015 acre-feet based on the 6-hour probable maximum precipitation event for the area (Screening - Level Overtopping Study. January 31, 1999); and,

3) Up to 5 million gpd of ground water from the Interceptor Well System.
4) Surface water quality of Tailings Pond 7 shall not have pH values below 6.0, or greater than pH 9.0.

[20.6.2.3106 NMAC]

Whitewater Creek Diversion:

4. Chino shall inspect the Old Whitewater Creek Diversion and seepage containment system, quarterly, for the presence of seepage water. The inspections and the presence of water shall be reported in the semi-annual monitoring reports described in Condition 12. If seepage is present, Chino must follow Condition 16. [20.6.2.3107 NMAC]

MONITORING, REPORTING, AND OTHER REQUIREMENTS

5. Chino shall conduct the monitoring, reporting and other requirements listed below. A summary of monitoring requirements is attached as Table 1; the monitoring schedule can be found in Table 2. [20.6.2.3107 NMAC]

Sampling and Field Measurements:

6. Ground Water Monitoring: Chino shall monitor ground water quality as follows:

   A. Pumping wells PW-1, PW-2 or PW-2R (replacement pumping well to be constructed in late 2004), PW-3, PW-4, PW-5, PW-6, PW-7 or PW-7R (replacement pumping well to be constructed in late 2004), PW-8, PW-9 PW-10, PW-11, PW-12, PW-15, PW-16, PW-17, PW-18, PW-19, PW-20 and BLTCMP (Composite of Bolton Wells BW-9, 12, 13, 15, and 16) shall be sampled as follows:
      1) Chino shall sample each well quarterly for the field parameters as described in Condition 10A.
      2) Chino shall record on a quarterly basis the depth to the water table to the nearest hundredth of a foot (0.01 ft).
      3) Chino shall collect samples for each well on a semi-annual basis and analyze for the indicator parameters as described in Conditions 10B and 10D.
      4) Chino shall collect samples from each well on an annual basis and analyze for the water parameters listed in Conditions 10C and 10E below. [20.6.2.3107 NMAC]

   Results shall be reported as required in Condition 12 below. [20.6.2.3107 NMAC]

B. Monitoring wells 7AS, 7BS, 7CS, 7FS, 7ES, 7DS, 7GS, 7JS, 7KS, 7LS, 7MS, DM-19D, NW-4 and NW-6 shall be sampled as follows:

1) Chino shall record on a quarterly basis the depth to the water table to the nearest hundredth of a foot (0.01 ft).
2) Chino shall collect samples for each well on a quarterly basis and analyze for the indicator parameters as described in Condition 10B and 10D.
3) Chino shall collect samples from each well on a semi-annual basis and analyze for the water parameters listed in Condition 10C and 10E below. [20.6.2.3107 NMAC]

Analytical results and depth to water measurements shall be reported as required in Condition 12 below. [20.6.2.3107 NMAC]

C. Monitoring wells DM-19S, B-1, B-2, 484-96-1, 484-96-2, 484-96-3, 484-96-4, 484-96-5, 484-97-1, 484-97-2, 484-97-3D, 484-97-3S, 484-97-4, 484-97-5, 484-97-6, 484-99-1, 7BD, 7ED, 7HS, NW-1, NW-2, NW-3, NW-5, NW-11, NW-13 and WM shall be sampled as follows:

1) Chino shall record on an annual basis the depth to the water table to the nearest hundredth of a foot (0.01 ft).
2) Chino shall collect samples for each well on an annual basis and analyze for the indicator parameters as described in Condition 10B.
3) Chino shall collect samples from each well on an annual basis and analyze for the water parameters listed in Condition 10C and 10D below. [20.6.2.3107 NMAC]

Analytical results and depth to ground water measurements shall be reported as required in Condition 12 below. [20.6.2.3107 NMAC]

D. All monitoring wells installed after the issuance of this Discharge Permit shall be sampled on a quarterly basis as follows:

1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01ft).

2) Chino shall record field parameters as described in Condition 10A.

3) Samples shall be collected from each well quarterly and analyzed for the water parameters listed in Conditions 10B, 10C and 10D below. [20.6.2.3107 NMAC]

Analytical results and depth to ground water measurements shall be reported as required in Condition 12 below. [20.6.2.3107 NMAC]

7. <u>Tailing Pond 7:</u>

A. Tailing Pond 7 water that is pumped at the floating barge and sent to Axiflo Lake, referred to as the tailing decant return water (TDRW), shall be sampled at the decant line valve prior to entering Axiflo Lake. If pumps are not functioning the sample will be obtained from the Pond 7 TDRW inlet barge area. Sampling shall occur as follows:

   1) Chino shall sample monthly for field parameters as described in Condition 10A below.

   2) Chino shall sample quarterly for the parameters in Conditions 10B, 10C and 10D below.

   Analytical results shall be reported as required in Condition 12 below. [20.6.2.3107 NMAC]

8. Flow Measurements – Chino shall measure daily flow rates using appropriate metering devices for the following discharges:

   A. Volumes of water pumped from the interceptor wells to Tailings Pond 7;
   B. Total cumulative flow to the Termination Tank;
   C. Volumes from Termination Tank to Pond 7;
   D. Volumes of Hurley and Tri-city sewage discharge;
   E. Volumes of MRU No.2 treated effluent;
   F. Volumes of decant from Tailing Pond 7 to Axiflo Lake;
   G. Total monthly tailing slurry discharged to Tailing Pond 7 (tons); and
   H. Total monthly tailing solid discharged to Tailing Pond 7 (tons). [20.6.2.3107 NMAC]

   Flow measurement data shall be reported as required in Condition 12 below. [20.6.2.3107 NMAC]

9. Additional Data – Chino shall record the following data at the specific frequencies:

   A. Daily precipitation; and
   B. Water Balance Data on a monthly basis.

   Additional data shall be reported as required in Condition 12 below. [20.6.2.3107 NMAC]

Analysis:

10. Chino shall analyze samples of ground water for dissolved concentrations of the analytes listed below. Samples collected from surface impoundments shall be analyzed for dissolved and total concentrations of the analytes listed below.

    A. Field parameters: pH, specific conductance and temperature.

B. Indicator Parameters: Suite A above plus sulfate and total dissolved solids.

C. General chemistry parameters: calcium, magnesium, sodium, potassium, alkalinity, fluoride and chloride.

D. Metals parameters: aluminum, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury (total concentration only), molybdenum, nickel, selenium, and zinc.

E. Other parameters: Nitrate-nitrogen and TKN plus any other parameters as identified during ongoing investigations of potential source areas and as required by NMED. [20.6.2.3107 NMAC]

Methodology:

11. Unless otherwise approved in writing by NMED, Chino shall conduct sampling and analysis in accordance with the most recent edition of 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 Code of Federal Regulations Part 136. [20.6.2.3107 NMAC]

Reporting:

12. Chino shall submit a quarterly report by January 31st, April 30th, July 30th, and October 31st of each year and shall use the following format:

A. A brief written summary of all activities related to the discharge conducted during the preceding three months. This may include operational activities, discharge flow volumes, spills, maintenance, repairs, well drilling, water management, construction or demolition of structures, water quality trends, precipitation and trends in water levels.

B. A single table in a paper and electronic format (EXCEL spreadsheet) of water quality data with only those constituents analyzed and water levels measured during that event, shown in columns. Tabulated electrical conductivity will include the measured field values and corrected values to 25 degrees Celsius. Monitor sites will be shown in rows. Values exceeding standards shall be bolded. Any constituent not analyzed for a particular site will be shown as "NA", and any site not sampled will be shown as "NS" with an associated reason, and any site not measured for water levels will be shown as "NM" with an associated reason. The report shall include a table showing water level data for all applicable monitoring wells for the sample period. The report shall include figures showing the sample locations and the analytical results obtained for the sample period with exceedances of applicable water quality standards presented in bold text.

C. Copies of the original laboratory data sheets shall be included.

In addition to the above information, the *annual* monitoring reports, due by January 31st, shall contain the following:

D. An annual summary of precipitation;

E. A potentiometric surface map that includes the most recent water level data presented in tabular form;

F. A summary of laboratory QA/QC methods used.

G. Graphs with water quality trends and hydrographs. At a minimum, graphs with the previous 5 years of indicator parameter data shall be presented for TDS, sulfate, and hydrographs. The graphs shall present data for 5 years prior to, and including, the most recent sampling event.

In order to provide a more detailed and comprehensive assessment of the entire tailing impoundment/Whitewater Creek area, Chino may choose to combine the annual monitoring reports for DP-214, DP-484 and DP-1340. [20.6.2.3107 NMAC]

13. Chino shall submit an annual written summary that evaluates the interceptor well performance, which should include, at a minimum, a potentiometric surface map and a sulfate and TDS iso-concentration map. This report shall be submitted by January 31st of each year. [20.6.2.3107 NMAC]

ABATEMENT PLAN

14. Ground water standards have been exceeded within the area covered under this Discharge Permit. An abatement plan to address this ground water contamination shall be submitted to NMED for approval as part of the site-wide abatement plan required pursuant to Condition 32 of the Supplemental Discharge Permit for Closure, DP-1340. The abatement plan shall be conducted in two stages. Stage one of the abatement plan shall include a schedule to investigate all known areas of ground water and surface water contamination within the area covered by the DP-484 for the Tailing Pond 7, and define the extent magnitude of ground water contamination in accordance with Sections 20.6.2.3109.E.1 or 20.6.2.4000 NMAC through 4115 NMAC. Stage two of the abatement plan shall include an analysis of abatement alternatives pursuant to 20.6.2.4106.E.2 NMAC and the selection of an abatement alternative in accordance with the abatement regulations.

15. Chino shall operate the Interceptor Well System continuously such that the contaminant plume is completely contained. This system must be operational until monitoring indicates that the WQCC ground water standards have been achieved and maintained for two consecutive years (eight quarters); unless an alternative system is required to abate ground water contamination as part of the abatement plan required under Condition 14 that allows the Interceptor Well System to cease operation. If the annual evaluation report in Condition 13 indicates that complete capture and containment of the plume is not being attained, then Chino shall propose for NMED approval immediate measures to stop plume migration through increased pumping in current extraction wells or the addition of new extraction well(s). NMED may require this system to be modified or expanded based on the result of ongoing ground water sampling, future investigations, or approval of the abatement plan for Tailing Pond 7 described under Condition 14. [20.6.2.3106 NMAC]

CONTINGENCY PLAN

Ground Water Exceedances:

16. In the event that monitoring indicates ground water or surface water standards are exceeded, or the extent or magnitude of existing ground water contamination is significantly increasing, Chino shall collect a confirmatory sample from the monitoring well(s) within 15 days to confirm the initial sampling results. Within 30 days of the confirmation of ground water or surface water contamination or significant increases in existing contamination, Chino shall submit a plan to NMED to abate contamination, which includes a site investigation to define the source, nature and extent of contamination; a proposed abatement option, and a schedule for its implementation. The site investigation and abatement option shall be consistent with the requirements and provisions of 20.6.2.4101, 4103. 4106 C and E, 4107 and 4112 NMAC.

Stage One of the abatement plan shall be implemented within 30 days of NMED approval. An abatement plan required under this Condition may be incorporated into any abatement plan required under Condition 14. [20.6.2.3107.A 10 NMAC]

Operational Failures:

17. In the event of a pipeline break, pump failure, pond overflow or other system failure at the facility, the tailing slurry, decant water, intercepted ground water and other discharges shall be contained, pumped and/or transferred to areas of the facility that impose minimal impacts to ground water quality. Failed components shall be repaired or replaced as soon as possible and no later than 72 hours from the time of failure. [20.6.2.3107A(10) NMAC]

18. If NMED or Chino identifies any other failure or potential failure of the Discharge Permit Renewal and Modification or system not specifically noted above, NMED may require Chino to develop for NMED approval, contingency plans and schedules to address such a failure. [20.6.3.3104 NMAC]

Spill Reporting:

20. In the event of a spill or release that is not prescribed under this Discharge Permit, Chino shall initiate the notifications and the corrective actions as required in 20.6.2.1203 NMAC. Chino shall take immediate corrective actions to contain and remove or mitigate the damage caused by the discharge. Within 24 hours after the discovery of the discharge, Chino shall verbally notify NMED and provide the information required by 20.6.2.1203 A.1 NMAC. Within 7 days of discovering the discharge, Chino shall submit a written report to NMED verifying oral notification and providing any additional information or changes. Chino shall submit a corrective action report within 15 days after the discovery of the discharge. [20.6.2.1203 NMAC]

Cessation of Tailing Discharges:

21. In the event that Chino ceases to discharge tailings slurry to Tailing Pond 7 for a period exceeding 180 days, Chino shall submit a plan (with a schedule) to NMED for approval within the 180-day period proposing alternative discharge locations for any remaining discharges to Tailing Pond 7.

CLOSURE PLAN

22. Chino shall maintain a closure plan for the entire Tailing Pond 7 area pursuant to the Supplemental Discharge Permit for Closure, DP-1340. In the event that Chino modifies or expands the Tailing Pond 7 pursuant to Discharge Permit, DP-484 in a manner that exceeds

the scope of the proposed closure plan, Chino shall propose changes to the closure plan accordingly. [20.6.2.3107.A.11 NMAC]

FINANCIAL ASSURANCE

23. Pursuant to the Supplemental Discharge Permit for Closure, DP-1340, Chino shall maintain financial assurance for Tailing Pond 7 and associated facilities in an amount sufficient to cover the cost of all required closure activities including post-closure monitoring and site maintenance. [20.6.2.3107.A.11 NMAC]

GENERAL TERMS AND CONDITIONS

Record Keeping:

24. Chino shall maintain at its facility a written record of all data and information on monitoring of ground water, surface water, seepage, and meteorological conditions pursuant to this 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. [20.6.2.3107. NMAC]

25. Such data and information as described in Condition 22, shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples. [20.6.2.3107.A NMAC]

26. Chino shall maintain a written record of any spills, seeps, or leaks of effluent, leachate or process fluids not authorized by this Discharge Permit. [20.6.2.3107.A NMAC]

27. Chino shall maintain a written record of the operation, maintenance and repair of all facilities/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 Discharge Permit. This record shall include repair, replacement or calibration of any monitoring equipment and repair or replacement of any equipment used in the conveyance of process waters throughout this permit area. [20.6.2.3107.A NMAC]

28. 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 Discharge Permit and DP-1340, Chino shall retain copies of all data, records, reports, and other documents generated pursuant to this Discharge Permit. Such record retention period may be increased by NMED at any time upon written notice to Chino. [20.6.2.3107.A NMAC]

29. All such data, records, reports, and other documents generated pursuant to this Discharge Permit, shall be provided to NMED upon request. [20.6.2.3107.A NMAC]

Inspection and Entry

30. Chino shall allow the Secretary or an authorized representative of NMED, upon the presentation of credentials, to:

    a. Enter any property or premises owned or controlled by Chino during regular business hours or at other reasonable times upon Chinos premises or at another location where records are kept under the conditions of this Discharge Permit or any Federal or WQCC regulation.

    b. Inspect and copy, during regular business hours or at other reasonable times, records required to be kept under the conditions of this Discharge Permit or pursuant to State or Federal water quality regulations.

    c. Inspect any facility, equipment (including monitoring and control equipment for treatment works), practices or operations regulated or required under this Discharge Permit or under any Federal or WQCC regulations.

    d. Sample or monitor at reasonable times for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the New Mexico Water Quality Act, any effluent, water contaminant, or receiving water at any location before or after the discharge. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

31. Nothing in this 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. [20.6.2.3107 NMAC]

Duty to Provide Information

32. 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 Discharge Permit, or to determine whether Chino is in compliance with this Discharge Permit. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

33. Nothing in this 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. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

Spills, Leaks and Other Unauthorized Discharges

34. This Discharge Permit authorizes only those discharges specified herein. Any discharge not authorized by this Discharge Permit or any other Chino Discharge Permit is a violation of the WQCC Regulations at 20.6.2.3104 NMAC. Chino must report any such discharge to NMED, and it must take corrective action to contain and remove or mitigate the damage caused by the discharge in accordance with 20.6.2.1203 NMAC and, if applicable, condition 20 of this Discharge Permit. [20.6.2.1203 NMAC]

Modifications/Amendments

35. 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 Discharge Permit pursuant to 20.6.2.3109.E, F, or G NMAC prior to any increase in the quantity of a discharge, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit. [20.6.2.3107 NMAC]

Enforcement

36. Any violation of the requirements and conditions of this 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 WQA § 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 Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to the WQA §§ 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 the WQA § 74-6-5, the WQCC regulations, or this 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 the WQA § 74-6-10.2, criminal penalties may also apply. In any action to enforce this Discharge Permit, Chino waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. Chino does not waive any objection relating to the truth or accuracy of the data. [74-6 WQA]

Compliance with Other Laws

37. Nothing in this 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. [74-5-5.K WQA]

Liability

38. The approval of this Discharge Permit does not relieve Chino of liability should operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations. [20.6.2.1220 NMAC]

Right to Appeal

39. Chino may file a petition for a hearing before the WQCC on this Discharge Permit. Such petition must be made in writing to the WQCC within thirty (30) days after Chino receives this Discharge Permit. Unless a timely petition for a hearing is made, the decision of NMED shall be final. [74-6-5.N WQA]

Transfer

40. Prior to any transfer of ownership, control, or possession of the Chino Mine or any portion thereof, Chino shall notify the proposed transferee in writing of the existence of this 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. [20.6.2.3111 NMAC]

Term

41. The term of this Discharge Permit is five (5) years, and the Permit will automatically expire five (5) years from the date it is issued. To renew this Discharge Permit, Chino must submit an application for renewal at least 120 days before that date. [74-6-5.H and 20.6.2.3109.H NMAC]

Issued this fourteenth day of January, 2005

William C. Olson, Chief
Ground Water Quality Bureau
New Mexico Environment Department

Under authority delegated by the Secretary of the New Mexico Environmental Department

CHINO TAILING POND 7, DP-484
MONITORING SUMMARY

Monitoring Reports are due by 31-JAN, 30-APR, 31-JUL, 31-OCT

Table 1: Monitoring and Reporting Summary

Annual Sampling Frequency	Annual Reporting Frequency	Number of Sites	Sampling Description
4	4	31	**W** – Water levels quarterly.
2	2	26	**W** – Water levels annually.
1	1	26	**B** – pH, Specific Conductance, Temperature, Sulfate (SO_4) and TDS for monitoring wells.
4	4	19	**B** – pH, Specific Conductance, Temperature, Sulfate (SO_4) for reservoirs, ponds and wells.
4	4	19	**A** – pH, Specific Conductance and Temperature for reservoirs, ponds and wells.
4	4	3	**C** - Tabulated data and sign lab sheets for pH, Temp, Specific Conductance, SO_4, TDS, Alk-HCO_3, alk- CO_3, Ca, Mg, Na, K, F and Cl.
4	4	20	**D** - Tabulated data and sign lab sheets for Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mo, Se, Ni and Zn.
2	2	14	**C** - Tabulated data and sign lab sheets for pH, Temp, Specific Conductance, SO_4, TDS, Alk-HCO_3, alk- CO_3, Ca, Mg, Na, K, F and Cl.
2	2	20	**D** - Tabulated data and sign lab sheets for Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mo, Se, Ni and Zn.
1	1	45	**C** - Tabulated data and sign lab sheets for pH, Temp, Specific Conductance, SO_4, TDS, Alk-HCO_3, alk- CO_3, Ca, Mg, Na, K, F and Cl.
1	1	26	**D** - Tabulated data and sign lab sheets for Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mo, Se, Ni and Zn.
4	4	NA	Activities Report Quarterly.
4	4	NA	Copies of laboratory data sheets.
4	4	NA	Daily volume of discharge to Pond 7.
4	4	NA	Monthly discharge of ground water pumped from SXIW-2 to Reservoir 7.
4	2	NA	Inspection report for presence of seepage water in Old Whitewater Creek Diversion and seepage containment system.
1	1	NA	Pond 7 Potentiometric Map.
1	1	NA	Southern Area Potentiometric Map.
1	1	NA	Hydrographs and water quality trends.
1	1	NA	Summary of laboratory QA/QC.
365	4	1	Daily precipitation data.
365	4	NA	Daily volumetric flow rates of: water pumped from interceptor wells, inflow to termination tank, termination tank outflow to Pond 7, Hurley and Tri-City sewage, MRU #2 treated effluent, TDRW decant from Pond 7 to Axiflow Lake, tailing slurry discharged to Pond 7 and tailing solids discharged to Pond 7.

Table 2 Monitoring Schedule

Area / Sub-Area	Locations	Sampling					Notes
		type	Monthly	Quarterly	Semi-Annually	Annually	
Zone 1							
1.	PW-1	ew		A,W	B,D	C,E	
2.	PW-4	ew		A,W	B,D	C,E	
3.	PW-5	ew		A,W	B,D	C,E	
4.	PW-8	ew		A,W	B,D	C,E	
5.	PW-20	ew		A,W	B,D	C,E	
6.	7G(S)	mw		B,D,W	C,E		
7.	7L(S)	mw		B,D,W	C,E		
8.	7M(S)	mw		B,D,W	C,E		
9.	NW-2	mw				B,C,D,W	
10.	NW-6	mw		B,D,W	C,E		
11.	NW-13	mw				B,C,D,W	
12.	484-96-3	mw				B,C,D,W	
13.	484-96-5	mw				B,C,D,W	
Zone 2							
14.	PW-3	ew		A,W	B,D	C,E	
15.	PW-6	ew		A,W	B,D	C,E	
16.	PW-9	ew		A,W	B,D	C,E	
17.	PW-10	ew		A,W	B,D	C,E	
18.	PW-19	ew		A,W	B,D	C,E	
19.	7F(S)	mw		B,D,W	C,E		
20.	7E(S)	mw		B,D,W	C,E		
21.	7E(D)	mw				B,C,D,W	
22.	NW-5	mw				B,C,D,W	
23.	484-96-1	mw				B,C,D,W	
24.	484-96-2	mw				B,C,D,W	
25.	484-96-4	mw				B,C,D,W	
Zone 3							
26.	PW-2 (or PW-2R)	ew		A,C	B,D	C,E	
27.	PW-7 (or PW-7R)	ew		A,C	B,D	C,E	
28.	PW-11	ew		A,W	B,D	C,E	
29.	PW-12	ew		A,W	B,D	C,E	
30.	7D(S)	mw		B,D,W	C,E		
31.	7K(S)	mw		B,D,W	C,E		
32.	NW-1	mw				B,C,D,W	
33.	NM-3	mw				B,C,D,W	
34.	NW-4	mw		B,D,W	C,E		
35.	NW-11	mw				B,C,D,W	
36.	B-1	mw				B,C,D,W	
37.	B-2	mw				B,C,D,W	
38.	484-97-3(S)	mw				B,C,D,W	
39.	484-97-3(D)	mw				B,C,D,W	

Area Sub-Area	Locations	Sampling type	Monthly	Quarterly	Semi-Annually	Annually	Notes
Zone 4							
40.	PW-15	ew		A,W	B,D	C,E	
41.	PW-16	ew		A,W	B,D	C,E	
42.	PW-17	ew		A,W	B,D	C,E	
43.	PW-18	ew		A,W	B,D	C,E	
44.	7A(S)	mw		B,D,W	C,E		
45.	7B(S)	mw		B,D,W	C,E		
46.	7B(D)	mw				B,C,D,W	
47.	7C(S)	mw		B,D,W	C,E		
48.	484-97-1	mw				B,C,D,W	
49.	484-97-2	mw				B,C,D,W	
50.	484-97-4	mw				B,C,D,W	
51.	484-97-5	mw				B,C,D,W	
52.	484-97-6	mw				B,C,D,W	
53.	484-99-1	mw				B,C,D,W	
Other Sampling Locations							
54.	7H(S)	mw				B,C,D,W	
55.	7J(S)	mw		B,W	C,D,E		
56.	WM	mw				B,C,D,W	
57.	DM-19(S)	mw				B,C,D,W	
58.	DM-19(D)	mw		B,D,W	C,E		
59.	TDRW	sw	A	B,C,D			
60.	BLTCMP	mw		A,W	B,D	C,E	

Explanation to Abbreviations and Symbols

Type:
- mw = monitoring well
- ew = extraction well
- sw = surface water
- spg = spring
- sp = seep

Sampling Quarters:
- Q1 = Jan-Mar
- Q2 = Apr-Jun
- Q3 = Jul-Sep
- Q4 = Oct-Dec

Sampling Analytical Suites:
- A = Field parameters: Temp, pH, specific conductance
- B = Indicator parameters: suite A, sulfate, TDS
- C = General Chemistry inorganic suite: alk-HCO_3, alk-CO_3, Ca, Mg, Na, K, F, Cl,
- D = Metals parameters: Al, As, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Se, Ni and Zn
- E = NO_3 & TKN

W = Depth to water measurement to the nearest 0.01 foot.
*3xBC = establish water quality with a minimum of three sampling events for B and C.
**monthly Lake 1 = During 1st 12-months of leaching Lake 1 material, monthly for B and C.