

**DISCHARGE PERMIT RENEWAL AND MODIFICATION
FREEPORT MCMORAN TYRONE, INC., DP-455
GETTYSBURG AND SAVANNAH OPEN PITS &
6B, 6C AND 7B LEACH STOCKPILES
DRAFT June 18, 2010**

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification, DP-455, to Freeport McMoRan Tyrone, Inc. (Tyrone) 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 NMED's purpose in issuing this Discharge Permit Renewal and Modification, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from the Gettysburg and Savannah Pits and the 6B, 6C and 7B Leach Stockpiles that may move directly or indirectly into ground and surface water, so as to protect ground and surface water for present and potential future use as domestic and agricultural water supply and other uses; to abate pollution of ground and surface water; and to protect public health. In issuing this Discharge Permit, NMED has determined that the requirements of 20.6.2.3109.C NMAC have been met.

Facility Description

The facilities that currently produce discharges that move directly or indirectly into groundwater are the Gettysburg Pit, the 6C Leach Stockpile contained within the pit and the 7B Leach Stockpile located west of the pit. This Discharge Permit Renewal and Modification also incorporates facilities previously covered under DP-670 and includes the Savannah Pit and the 6B Leach Stockpile.

Leach solution (raffinate) is applied to the 6C Leach Stockpile (approximately 47 acres) and pregnant leach solution (PLS) is collected in a clay-lined perched collection pond located at an elevation of 6290 amsl. The PLS is transferred via pipeline to the synthetically lined 6C-2 PLS Collection Pond/ Booster Station, which also collects PLS directly from the toe of the 6C Leach Stockpile. PLS that bypasses these two systems is collected in the unlined Gettysburg Pit Collection Pond located in the bottom of the pit.

Raffinate is also applied to the 7B Leach Stockpile (approximately 81 acres) and is collected as PLS in the 7B PLS Collection Pond and a side-slope drain that transfers additional PLS to the collection pond. PLS is transferred from the 7B PLS Collection Pond via HDPE pipeline to the SX/EW Plant for copper removal. Overflow from the 7B PLS Collection Pond reports to an infiltration trench in the 6B Leach Stockpile. Impacted storm water, PLS and surfacing ground water that gathers in the Gettysburg Pit is collected in the unlined pit bottom and pumped via pipeline to the 6C-2 Booster Station and then to the 7B PLS Collection Pond. PLS collected in the 7B pond is pumped via HDPE pipelines to the SX/EW Plant for removal of copper.

Permit Modification

DP-455 is being modified by this Discharge Permit to include the 6B Leach Stockpile and the Savannah Pit previously covered under DP-670. Raffinate is applied to the top surface of the 6B Leach Stockpile (105 acres) that was deposited as backfill in the East Main Pit. PLS is collected in a clay-lined sump in the pit bottom and removed by three extraction wells. The PLS is pumped to the East Main Booster consisting of a barge pump in a synthetically lined collection pond. From the booster, the PLS is transferred via HDPE pipeline to the SX/EW Plant for removal of copper. Located north of the East Main extraction wells, is the 5750 extraction well intended as a backup system to manage additional flows during storms and for upset conditions. The well is capable of pumping PLS to the East Main Booster or to an infiltration trench in the 1B Leach Stockpile (DP-383). Pit water currently emanating in the Savannah pit bottom is pumped to an unlined booster station at the 5750 elevation and then pumped to the 6B Leach Stockpile for infiltration or back into the raffinate circulation system. The Savannah Pit is authorized to store mine pit water up to an elevation of 5750 feet amsl.

Location of Discharge

The Gettysburg Pit, Savannah Pit, and the 6B, 6C & 7B Leach Stockpiles are located at the Tyrone Mine approximately 10 miles southwest of Silver City in, Sections 22, 23, 25, 26 and 27, T19S, R15W, Grant County, New Mexico.

Quantity, Quality, and Flow Characteristics of the Discharge

The 6B, 6C and 7B Leach Stockpiles are leached with a sulfuric acid solution (raffinate) which removes metals from the mined ore as it passes through the stockpile. In addition to leaching, these stockpiles and the open pits contain sulfide minerals which, when oxidized, generate acid solutions. These acid solutions react with in situ minerals, which produces acid rock drainage (ARD) and associated metals and sulfate contamination. The leachate from ARD and from the leaching process has moved directly or indirectly into surface and ground water. The regulated discharges under this Discharge Permit include raffinate and its copper-bearing equivalent PLS, stockpiled ore and ARD. The PLS has a TDS concentration up to 100,000 mg/l. The raffinate, PLS and ARD exceed the water quality standards under WQCC Regulations in Section 20.6.3103.A NMAC for Arsenic, Cadmium, Chromium, Fluoride, and Lead; Section 20.6.2.3103.B for Copper, Iron, Manganese, pH, Sulfate, TDS, and Zinc; and Section 20.6.2.3103.C for Aluminum, Cobalt and Nickel. The maximum permitted discharge rate of raffinate applied to the 6C and 7B Leach Stockpiles is approximately 11,088,000 gallons per day (gpd) (7,500 gallons per minute (gpm)). The maximum permitted discharge rate of raffinate to the 6B Leach Stockpile is 7,200,000 (5,000 gpm).

Characteristics of Groundwater

The facilities covered by this Discharge Permit are located in an actively dewatered area of the Tyrone Mine. Depth to ground water ranges from ground surface (0 feet bgs) at the bottom of

the Gettysburg and Savannah pits to a maximum of 560 feet at the pit perimeters. The total dissolved solids concentration is approximately 500 milligrams per liter.

General

Tyrone's Discharge Plan for DP-455 consists of the Discharge Permit Renewal applications for DP-455 and DP-670 submitted on August 12, 2009, and a supplemental request for permit modification submitted on April 13, 2010. In addition, the Discharge Plan includes applicable information and materials submitted as part of the original discharge plan for DP-455 approved on January 15, 1988 and renewed on January 15, 1995 and December 13, 2004. This Discharge Plan also includes applicable information and materials submitted as part of the original discharge plan for DP-670 approved on July 30, 1990, modified on May 7, 1995, and renewed on August 8, 1995 and December 13, 2004. The discharge shall be managed in accordance with the Discharge Plan as conditioned by this Discharge Permit.

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

Issuance of this Discharge Permit does not relieve Tyrone 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 and nuisance orders.

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. Tyrone is discharging effluent or leachate from the Gettysburg and Savannah Pits and the 6B, 6C and 7B Leach Stockpiles so that such effluent or leachate may move directly or indirectly into groundwater within the meaning of 20.6.2.3104 NMAC.
2. Tyrone is discharging effluent or leachate from the Gettysburg and Savannah Pits and the 6B, 6C and 7B Leach Stockpiles so that such effluent or leachate may move into groundwater of the State of New Mexico which has an existing concentration of 10,000 milligrams or less of total dissolved solids within the meaning of 20.6.2.3101.A NMAC.
3. The discharge from the Gettysburg and Savannah Pits and the 6B, 6C and 7B Leach Stockpiles is not subject to any of the exemptions of 20.6.2.3105 NMAC.

III. PERMIT CONDITIONS

Tyrone shall comply with the following conditions, which are enforceable by NMED.

OPERATIONS

1. Tyrone shall conduct the operational requirements set forth below, including investigations, in accordance with the WQCC Regulations at Sections 20.6.2.3106.C and 3107 NMAC to ensure compliance with 20.6.1 and 20.6.2 NMAC.

Discharge Authorizations

2. Tyrone is authorized to manage the following permitted discharges. [20.6.2.3106 NMAC][20.6.2.3109 NMAC]
 - a. Tyrone is authorized to discharge a maximum of 7,200,000 gpd (5,000 gpm) of acidic leach solution (raffinate) to the top surface of the 6B Leach Stockpile for the purpose of extracting copper. Tyrone is also authorized to discharge mine water to the 6B Leach Stockpile from the dewatering of the Savannah Pit in order to lower the pit lake elevation.
 - b. Tyrone is authorized to discharge a maximum of 11,088,000 gpd (7,700 gpm) of raffinate to the top surfaces of the 6C and 7B Leach Stockpiles for the purpose of extracting copper.
 - c. Tyrone is authorized to collect PLS in the 6C-2 Collection Pond, the 7B Collection Pond and the East Main Collection Pond. Tyrone is authorized to collect PLS in Gettysburg pit bottom with an operational pit lake level not to exceed 5630 feet amsl.
 - d. Tyrone is authorized to store mine water in the Savannah Pit with the pit lake level not to exceed an elevation of 5750 feet amsl.

Stockpile Limits

3. The 6B, 6C and 7B Leach Stockpiles shall not exceed the land surface areas of 105, 67 and 81 acres respectively. Tyrone may only expand the footprint or land surface area of these stockpiles for the purpose of facility closure as approved through the Supplemental Discharge Permit for Closure DP-1341, or through a permit modification to DP-455. [20.6.2.3106 and 3107 NMAC].

Pipelines

4. Upon discontinuing the operation of a pipeline, all PLS or process water within each pipeline shall be released to an authorized discharge location or otherwise properly contained, transferred or disposed of in a manner that does not result in discharges to non-authorized areas. After emptying, each pipeline shall be rinsed or sectioned and thoroughly drained to ensure residual contaminants are removed. Discharges of PLS and process water from

pipelines in non-authorized areas must be reported under 20.6.2.1203 NMAC. All changes in pipeline operations that result in removal of pipeline fluids in unauthorized discharge areas must be reported semi-annually in accordance with Conditions 19 and 20 below.
[20.6.2.3109 NMAC]

Pit Water Levels

5. *Gettysburg Pit:* Tyrone shall maintain the fluid level in the Gettysburg Pit Collection Pond below the water level in the adjacent monitoring wells 455-2005-02, GLD-5A, EM-2, 455-2007-01, 455-2008-02, and 455-2008-03. Tyrone shall maintain the PLS fluid level at or below 5630 feet amsl. High level alarms shall be set between 5627 and 5628 feet amsl to preserve additional volume as freeboard for short-term storage of PLS in the event of operational upset conditions. Tyrone shall maintain a spare PLS pump and motor available for immediate replacement of existing equipment in the event of malfunction or failure.
[20.6.2.3109 NMAC]
6. *Savannah Pit:* Tyrone is authorized to store mine pit water in Savannah Pit. Tyrone is not authorized to discharge leach solutions, leach ore or waste rock to the Savannah Pit without prior approval by NMED. When storing mine water in the Savannah Pit, Tyrone shall maintain the water at a level not to exceed the elevation of the Savannah Pit Booster Station at 5750 feet amsl. [20.6.2.3109 NMAC]

MONITORING, REPORTING AND OTHER REQUIREMENTS

Monitoring Well Installation

7. Within 180 days of issuance of this Discharge Permit, Tyrone shall install a monitoring well northeast of the Savannah Pit in the vicinity of Monitoring Well 670-2005-02. The location of the new well shall be approved by NMED prior to installation. The well shall be completed in the regional aquifer and Tyrone shall confer with NMED as necessary regarding well completion as the well is being installed. The monitoring well shall be constructed according to *NMED Monitoring Well Construction and Abandonment Guidelines* or an alternate method approved by NMED. Construction and lithologic logs shall be submitted to NMED within 30 days of well completion. [20.6.2.3107 NMAC]

Monitoring Well Abandonment

8. Tyrone shall provide NMED at least 30 days notification of the anticipated destruction or removal of any monitoring wells required under DP-455. In the event of unintentional well destruction or damage requiring well abandonment, Tyrone shall notify NMED as soon as possible. The notification shall include a description of monitoring well abandonment procedures and propose a replacement well location for NMED approval. Monitoring well abandonment shall be performed in accordance with *NMED Monitoring Well Construction and Abandonment Guidelines* or alternate method approved by NMED. [20.6.2.3107 NMAC]

9. Tyrone shall conduct the following monitoring, reporting, and other requirements set forth in Conditions 10 through 16 below. A summary of monitoring requirements is attached to this Permit as Table 1. [20.6.2.3107 NMAC].

Monitoring Well Sampling

10. Tyrone shall sample Monitoring Wells 455-2005-01, 455-2005-02, GLD-3A, GLD-5A, 670-2005-01, 670-2005-02, EM-2 and the new monitoring well required in Condition 7 as follows. [20.6.2.3107 NMAC]
- a. Depth to the water table and water level elevations shall be measured quarterly to nearest hundredth of a foot (.01 ft.) amsl.
 - b. Samples shall be collected from each well quarterly and analyzed for the water parameters listed in Conditions 17a, 17b and 17c below.

Analytical results and water level elevations shall be reported as required in Conditions 19 and 20 below.

11. Tyrone shall sample Monitoring Wells 455-2007-01, 455-2008-02 and 455-2008-03 as follows. [20.6.2.3107 NMAC]
- a. Depth to the water table and water level elevations shall be measured daily to nearest hundredth of a foot (.01 ft.) amsl. In the event of a transducer failure, monitoring of water levels with the remaining transducers in the adjacent wells shall be allowed for 60 days until repairs can be completed. In the event all transducers fail, monitoring of water levels may be reduced to a monthly frequency for 60 days until the equipment is repaired or replaced.
 - b. Samples shall be collected semi-annually in Monitoring Well 455-2007-01 and analyzed for the water parameters listed in Conditions 17a, 17b and 17c below.

Analytical results and water level elevations shall be reported as required in Conditions 19 and 20 below below.

Collection Ponds

12. Tyrone shall collect samples the Gettysburg Pit Collection Pond, 6C-2 Collection Pond, 7B Collection Pond and the East Main Booster annually and conduct analyses for the water parameters listed in Conditions 17b and 17c. Analytical results shall be reported as required in Conditions 19 and 20 below below. [20.6.2.3107 NMAC]

Seepage Collection

13. Tyrone shall monitor the 7R2B Seepage Collection System as follows. [20.6.2.3107 NMAC]

- a. Samples shall be collected quarterly and analyzed for the parameters listed in Conditions 17b and 17c below.
- b. The seepage flow rate shall be recorded twice per week using a NMED approved metering device.

The analytical results and daily flow rates shall be reported as required in Conditions 19 and 20 below below.

Pit Water

14. Tyrone shall measure the elevation of the Savannah Pit water and the Gettysburg Pit Collection Pond monthly to nearest hundredth of a foot (.01 ft.) amsl. Water level elevations shall be reported as required in Conditions 19 and 20 below below. [20.6.2.3107 NMAC]
15. Tyrone shall collect a water sample from water stored in the Savannah Pit semi-annually and analyze for the parameters listed in Conditions 17b and 17c. Analytical results shall be reported as required in Conditions 19 and 20 below below.[20.6.2.3107 NMAC]

Discharge Volumes

16. Tyrone shall measure the following discharge volumes using appropriate metering devices and/or calculation methods. Discharge volumes and dates shall be reported semi-annually as required in Conditions 19 and 20 below below. [20.6.2.3107 NMAC]
 - a. The daily volumes of raffinate (gpd) discharged to the tops of each of the 6B, 6C and 7B Leach Stockpiles.
 - b. The daily volumes of PLS (gpd) pumped from the Gettysburg Pit Collection Pond, 6C-2 Collection Pond, 7B Collection Pond and East Main Booster.
 - c. The daily volume of water pumped to the Savannah Pit.

Analysis

17. Tyrone shall analyze samples of ground water and samples from collection ponds for the specific parameters listed below. Samples of surface water from the collection ponds and the Savannah Pit lakes shall be analyzed for total and dissolved concentrations of the metal parameters and general chemistry parameters listed below and shall exclude field parameters. Samples of groundwater from monitoring wells shall be analyzed for dissolved concentrations of the metal parameters and general chemistry parameters listed below. [20.6.2.3107 NMAC]
 - a. Field parameters (to be performed in the field): temperature, pH and electrical conductivity.

- b. General chemistry parameters: calcium, sulfate, magnesium, alkalinity-carbonate, and bicarbonate, fluoride, sodium, potassium and total dissolved solids.
- c. Metal parameters: aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel and zinc.

Methodology

18. Unless otherwise approved in writing by NMED, Tyrone shall conduct sampling and analysis in accordance with the most recent editions of the following documents. [20.6.2.3107 NMAC]
- a. American Public Health Association, *Standard Methods for 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 CFR Part 136.

Reporting

19. Tyrone shall submit to NMED semi-annual monitoring reports containing information collected during the preceding six months from July 1st to December 31st by February 15th and from January 1st to June 30th by August 15th of each year. [20.6.2.3107 NMAC]
20. Semi-annual monitoring reports shall include results of all semi-annual monitoring tasks described in Conditions 10 through 16 above. Tyrone shall submit the semi-annual reports (both paper and electronic copies) that include but are not limited to the information summarized below. [20.6.2.3107 NMAC]
- a. A summary of all activities related to the discharges during the preceding six months. Examples include Section 20.6.2.1203 NMAC reportable spills, general operations, operational failures, discharge volumes, changes in daily flow rates, maintenance, repairs,

well installation and abandonment, storm water management, facility construction, water quality and water level trends, and precipitation patterns.

- b. A water quality and water level table that summarizes the analytical results of required monitoring. A map of the area encompassing 6B, 6C and 7B Leach Stockpiles and the Gettysburg and Savannah Pits showing the location of all wells must also be included. The format shall include a single table in a paper and electronic format (EXCEL spreadsheet) of water quality data with only those parameters analyzed and water levels measured during a single event (calendar quarter) shown in columns. Tabulated electrical conductivity shall include the measured field values and corrected values to 25° Celsius. Monitoring sites shall be shown in rows. Values exceeding standards shall be bolded. Any parameter not analyzed for particular site shall be shown as “NA”, any site not sampled shall be shown as “NS” with an associated reason, and any site not measured for water levels shall be shown as “NM” with an associated reason. Copies of signed laboratory analyses sheets shall be maintained at the site and made available to NMED staff upon request.
- c. A single table as described in Condition 20b above shall be submitted annually that includes all available ground water data to date for the monitoring wells covered under this Discharge Permit. For each monitoring well, the name of the well shall be entered in the far left column in a row by itself. Sampling events, beginning with the earliest event first, shall be entered in subsequent rows with the corresponding analytical data in columns to the right. Each new sampling event shall be added as an additional row to the existing spreadsheet with the date of the sampling event noted in the far left column under the monitoring well name.
- d. Electronic copies of laboratory analyses.
- e. Water level elevations for the Gettysburg Pit Collection Pond and Savannah Pit.
- f. Water chemistry analysis and flow rate data for the 7R2B Collection System.
- g. Discharge volumes of raffinate to the tops of the 6B, 6C and 7B Leach Stockpiles and discharge volumes of PLS from the 7B, 6C-2, Gettysburg Pit Collection Pond and East Main Booster.
- h. Regional aquifer potentiometric map incorporating semi-annual water level data from the monitoring wells.

ABATEMENT

21. Groundwater standards have been exceeded within and beyond the area covered under this Discharge Permit. An abatement plan to address this groundwater contamination shall be submitted to NMED for approval as part of the site-wide abatement plan required pursuant to the Supplemental Discharge Permit for Closure, DP-1341. Tyrone shall amend the site-wide abatement plan within 60 days of issuance of this permit to address any exceedences of

groundwater and surface water standards not currently addressed in the site-wide abatement plan. 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 groundwater and surface water contamination within the area covered by DP-455 for the 6B, 6C and 7B and other associated facilities, and define the extent and magnitude of groundwater 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 address the selection of an abatement option to abate groundwater contamination and shall include an analysis of abatement alternatives pursuant to 20.6.2.4106.E NMAC. Pursuant to 20.6.2.3109E (1), NMED may require additional abatement activities under this Discharge Permit Renewal and Modification. [20.6.2.3109E(1) and 20.6.2.4000 through 4115 NMAC]

CONTINGENCY PLANS

Ground Water and Surface Water Exceedences

22. In the event that monitoring indicates groundwater or surface water standards are exceeded, or the extent or magnitude of existing groundwater contamination is significantly increasing, Tyrone 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 groundwater or surface water contamination or significant increases in existing contamination, Tyrone shall submit to NMED for approval an abatement plan required in Condition 21, 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 Sections 20.6.2.4101, 4103, 4106, 4107, 4108 and 4112 NMAC. An abatement plan required under this condition may be incorporated into the abatement plan required in Condition 21 of this Discharge Permit. [20.6.2.3107.A (10) NMAC]

Operational Failures

23. In the event of a pipeline break, pump failure, pond overflow or other system failure associated with any facility covered under DP-455, all discharge water shall be contained, pumped and transferred to areas of the facility that impose minimal impacts to groundwater quality. Failed components shall be repaired or replaced as soon as possible and no later than 72 hours from the time of failure unless Tyrone obtains a written consent and a new timetable from NMED. [20.6.2.3107A (10) NMAC]

24. In the event of a heavy rainfall event or operational failure, Tyrone is permitted to allow the water level in the Gettysburg Pit to exceed 5630 feet amsl to a maximum level of 5650 feet amsl. Tyrone shall return the pit water level to below 5630 feet within 14 days after the initial excursion. In the event Tyrone is unable to return the pit water level to below 5630 feet, Tyrone shall notify NMED on the 14th day of the excursion, and, within 48 hours of the notification, submit a corrective action plan and schedule for NMED approval returning the pit water to its permitted operating level. [20.6.2.3107A(10) NMAC]

25. If NMED or Tyrone identifies any other failure or potential failure of this Discharge Permit or system not specifically noted above, NMED may require Tyrone to develop for NMED approval contingency plan and schedules to address such a failure. [20.6.2.3107 A (10) NMAC]

Spill Reporting

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

CLOSURE

27. Tyrone shall maintain a closure plan for the 6B, 6C and 7B Leach Stockpiles and associated facilities pursuant to the Supplemental Discharge Permit for Closure, DP-1341. Tyrone shall submit a revised closure plan for these facilities for incorporation into the Supplemental Discharge Permit for Closure (DP-1341) based on the results of the feasibility study required in DP-1341. In the event that Tyrone modifies or expands any facilities covered under this Discharge Permit in a manner that exceeds the scope of the closure plan, Tyrone shall propose changes to the closure plan accordingly. [20.6.2.3107 A (11) NMAC]

FINANCIAL ASSURANCE

28. Tyrone shall maintain financial assurance pursuant to the Supplemental Discharge Permit for Closure, DP-1341 for the 6B, 6C and 7B Leach Stockpiles and associated facilities to cover the cost of a third party to implement the closure plan described in Condition 27. The financial assurance shall be incorporated pursuant to DP-1341 to ensure that funds will be available to implement the closure plan if at any time Tyrone is unable, unwilling, or otherwise fails to implement closure of the facility. In the event that Tyrone modifies or expands any facilities covered under this Discharge Permit in a manner that exceeds the scope of the closure plan, Tyrone shall propose changes to the financial assurance accordingly. [20.6.2.3107 A (11) NMAC]

GENERAL TERMS AND CONDITIONS

29. Tyrone shall comply with the following general conditions, which shall be enforceable by NMED. [20.6.2.3104 NMAC]

Record Keeping

30. Tyrone shall maintain at its facility a written record of all data and information on monitoring of groundwater, surface water, seepage, and meteorological conditions pursuant to this Discharge Permit including the following information. [20.6.2.3107.A NMAC]
 - 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.
31. Such data and information as described in Condition 30, shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples. [20.6.2.3107.A NMAC]
32. Tyrone shall maintain a written record of any spills, seeps or leaks of effluent, or process fluids not authorized by this Discharge Permit. [20.6.2.3107.A NMAC]
33. Tyrone 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]
34. 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, Tyrone 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 the NMED at any time upon written notice to Tyrone. [20.6.2.3107.A NMAC]

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

Inspection and Entry

36. Tyrone shall allow the Secretary or an authorized representative of NMED, upon the presentation of credentials to conduct the following tasks. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

- a. Enter any property or premises owned or controlled by Tyrone at reasonable times upon Tyrone's 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, at 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, at reasonable times, 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 any effluent, water contaminant, or receiving water at any location before or after the discharge for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the New Mexico Water Quality Act.

37. Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of the NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation. [20.6.2.3107 NMAC]

Duty to Provide Information

38. Within a reasonable time after a request from the NMED, which time may be specified by the NMED, Tyrone shall provide the NMED with any relevant information to determine whether cause exists for modifying, terminating, or renewing this Discharge Permit, or to determine whether Tyrone is in compliance with this Discharge Permit. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

39. Nothing in this Discharge Permit shall be construed as limiting in any way the information gathering authority of the 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

40. This Discharge Permit authorizes only those discharges specified herein. Any discharge not authorized by this Discharge Permit or any other Tyrone Discharge Permit is a violation of the WQCC Regulations at 20.6.2.3104 NMAC. Tyrone must report any such discharge to the NMED, and it must take corrective action to contain and remove or mitigate the damage

caused by the discharge in accordance with Section 2.6.2.1203 NMAC and, if applicable, Condition 26. [20.6.2.1203 NMAC]

Modifications and Amendments

41. Tyrone shall notify the NMED of any changes to its leachate or process water collection or disposal system, including any changes in the leachate or process water flow rate or the volume of leachate or process water 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. Tyrone shall obtain NMED approval, as a modification to this Discharge Permit pursuant to Section 20.6.2.3109.E, F, or G NMAC, prior to any increase in the quantity leachate or process water discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit. [20.6.2.3107 NMAC]

Enforcement

42. Any violation of the requirements and conditions of this Discharge Permit, including any failure or refusal to allow the NMED to enter and inspect records or facilities, or any refusal or failure to provide the NMED with records or information, may subject Tyrone 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, Tyrone waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. Tyrone does not waive any argument as to the weight such evidence should be given. [74-6 WQA]

Compliance with Other Laws

43. Nothing in this Discharge Permit shall be construed in any way as relieving Tyrone of its obligation to comply with all applicable Federal, State, and local laws, regulations, permits, or orders. [74-5-5.K WQA]

Liability

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

Right to Appeal

45. Tyrone 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 Tyrone 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

46. Prior to any transfer of ownership, control, or possession of the permitted facility or any portion thereof, Tyrone shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Permit with the notice. Tyrone shall deliver or send by certified mail to the NMED a copy of the notification and proof that such notification has been received by the proposed transferee. [20.6.2.3111 NMAC]

Term

47. The effective date of this Discharge Permit is the date it is issued and signed by the Chief of the Groundwater Quality Bureau. 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, Tyrone 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 ____ day of ____, 2010

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

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

Table 1: Summary of Monitoring Requirements.

Annual Sampling Frequency	Annual Reporting Frequency	Number of Sites	Sampling Description
4	2	8	Water levels quarterly in one new and 7 existing regional monitoring wells
4	2	8	Field parameters, general chemistry and metals quarterly in one new and 7 existing regional monitoring wells.
365	2	3	Water levels daily in 3 Gettysburg Pit monitoring wells. Monthly in the case of equipment failure.
2	2	1	Field parameters, general chemistry and metal parameters in one Gettysburg Pit monitoring well.
1	1	4	General chemistry and metals annually in 4 PLS collection ponds.
4	2	1	General chemistry and metals quarterly at the 7R2B Collection System.
104	2	2	Flow rate (gpm) at the 7R2B Collection System twice per week.
12	2	2	Water level elevations in the Savannah Pit and Gettysburg Pit Collection pond monthly.
2	2	1	General chemistry and metals in the Savannah pit lake water semi-annually.
365	2	3	Daily discharge volumes of raffinate to the tops of 3 leach stockpiles
365	2	4	Daily discharge volumes of PLS pumped from 4 collection ponds.
2	2	1	Regional potentiometric map of area incorporating areas covered by this permit using most recent water quality data.