

**STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION**

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| IN THE MATTER OF PROPOSED |) | |
| AMENDMENTS TO GROUND |) | |
| AND SURFACE WATER |) | |
| PROTECTION REGULATIONS, |) | No. WQCC 17-03(R) |
| 20.6.2 NMAC |) | |

**AMIGOS BRAVOS AND GILA RESOURCES INFORMATION PROJECT
NOTICE OF INTENT TO PRESENT TECHNICAL TESTIMONY**

Amigos Bravos and Gila Resources Information Project (“GRIP”) (collectively, “AB/GRIP”) file this Notice of Intent to Present Technical Testimony (“NOI”) pursuant to the New Mexico Water Quality Act, 20.1.6 NMAC (New Mexico Water Quality Control Commission’s Rulemaking Procedures), and the June 2, 2017 Revised Procedural Order issued in this matter.

1. Entities for whom the witness will testify: Amigos Bravos and GRIP.
2. Technical Witness: Kathy J. Martin, P.E. (“KJM”). The qualifications of this witness and the basis for her expert testimony is set out in Exhibit A.
3. Testimony: The written direct testimony of KJM is pre-filed with this NOI in Exhibit A. KJM will acknowledge and affirm her respective written testimony under oath at hearing and, at that time, provide a brief summary of her testimony.
4. Recommended Amendments: Recommended changes to the New Mexico Environment Department’s (“NMED”) Corrected Amended Petition to Amend 20.6.2 NMAC filed on August 7, 2017 are included as Exhibit B.
5. Exhibits: AB/GRIP provides the following exhibits:

- A. KJM written direct testimony and CV;
- B. AB/GRIP's Corrected Statement of Position With Proposed Changes and Statement of Reasons filed on August 8, 2017;
- C. New Mexico Inspection of Public Records Act ("IPRA") requests filed by NMELC:
 - 1) July 25, 2017 IPRA request;
 - 2) August 7, 2017 IPRA request (DP-1055);
 - 3) August 7, 2017 IPRA request (DP amendment requests and associated NMED approval or denial for the past 10 years for certain Dairy Industry discharge permits);
 - 4) August 7, 2017 IPRA request (DP amendment requests and associated NMED approval or denial for the past 10 years for Mining Industry discharge permits);
 - 5) August 8, 2017 IPRA request;
 - 6) August 29, 2017 IPRA request.
- D. KJM discharge permit amendment spreadsheets:
 - 1) Discharge permit amendments approved or denied by NMED over the past 10 years, organized chronologically; and
 - 2) Discharge permit amendments approved or denied by NMED over the past 10 years, organized by discharge permit number.
- E. NMED discharge permit amendment approval and denial letters from 2006-2017:
 - 1) August 11, 2015 DP-71 Amendment Approval;
 - 2) December 12, 2013 DP-71 Amendment Approval;
 - 3) February 5, 2015 DP-181 and DP-1056 Amendment Approval;
 - 4) December 5, 2016 DP-213 Amendment Approval;
 - 5) June 14, 2007 DP-376 Amendment Approval;
 - 6) August 11, 2008 DP-376 Amendment Approval;
 - 7) January 24, 2014 DP-376 Amendment Approval;
 - 8) April 28, 2015 DP-376, DP-459, DP-493, DP-526, DP-591 and DP-1568 Amendment Approval;
 - 9) November 8, 2012 DP-435 Amendment Approval;
 - 10) June 6, 2014 DP-435 Amendment Approval;
 - 11) February 9, 2007 DP-455 Amendment Approval;
 - 12) May 15, 2008 DP-455 Amendment Approval;
 - 13) December 11, 2009 DP-455 Amendment Approval;
 - 14) March 1, 2010 DP-455 Amendment Approval;
 - 15) November 28, 2011 DP-455 Amendment Approval;
 - 16) December 6, 2013 DP-455 Amendment Approval;
 - 17) December 9, 2013 DP-455 Amendment Approval;
 - 18) October 21, 2014 DP-455 Amendment Approval;
 - 19) September 1, 2010 DP-484 Amendment Approval;

- 20) October 28, 2008 DP-526 Amendment Approval;
- 21) August 6, 2013 DP-526 Amendment Approval;
- 22) October 17, 2013 DP-526 Amendment Reissued;
- 23) November 22, 2013 DP-526 Amendment Approval;
- 24) March 27, 2014 DP-526 Amendment Approval;
- 25) May 5, 2015 DP-526 Amendment Approval;
- 26) November 23, 2015 DP-526 Amendment Approval;
- 27) June 8, 2016 DP-526 Amendment Approval;
- 28) January 12, 2012 DP-591 Amendment Approval;
- 29) January 17, 2012 DP-591 Amendment Approval;
- 30) November 22, 2013 DP-591 Amendment Approval;
- 31) February 8, 2007 DP-670 Amendment Denial;
- 32) February 29, 2011 DP-933 Amendment Approval;
- 33) April 19, 2013 DP-1236 Amendment Approval;
- 34) May 8, 2013 DP-1236 Amendment Approval;
- 35) December 2, 2011 DP-1340 Amendment Approval;
- 36) October 2, 2008 DP-1341 Amendment Approval;
- 37) July 14, 2017 DP-1399 Amendment Approval;
- 38) June 22, 2012 DP-1568, DP-459, DP-526 and DP-376 Amendment Approval;
- 39) January 14, 2011 DP-1651 Amendment Approval;
- 40) November 18, 2016 DP-1681 Amendment Approval; and
- 41) February 1, 2016 DP-166 Amendment Approval.

F. Discharge permit amendment requests submitted by permittees from 2006-2017:

- 1) November 3, 2016 DP-213 Amendment Request;
- 2) February 3, 2006 DP-376 Amendment Request;
- 3) May 8, 2008 DP-455 Amendment Request;
- 4) October 2, 2009 DP-455 Amendment Request;
- 5) May 18, 2012 DP-459 Amendment Request;
- 6) March 24, 2015 DP-1568, DP-526, DP-459 and DP-376 Amendment Request;
- 7) February 13, 2013 DP-1236 Amendment Request;
- 8) February 21, 2014 DP-526 Amendment Request; and
- 9) February 22, 2006 DP-670 Amendment Request.


G. Discharge Permits issued from 2006-2017:

- 1) DP-213;
- 2) DP-376;
- 3) DP-455;
- 4) DP-1681;
- 5) DP-1236; and
- 6) DP-933.

6. Reservation of Rights: AB/GRIP reserves the right to call additional witnesses or introduce additional direct or rebuttal testimony and exhibits in response to the pre-filed testimony of all other parties in this matter and in response to the testimony, witnesses, and exhibits presented at hearing. AB/GRIP also reserves the right to raise relevant objections to the evidence, witnesses and exhibits offered by all of the parties, either pre-filed or at hearing.

DATED this 11th day of September, 2017.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "Jaimie Park", is written over a horizontal line.

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CERTIFICATE OF SERVICE

I certify that a copy of the foregoing NOI was served on September 11th, 2017 via first class postal service to the following:

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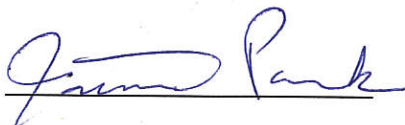
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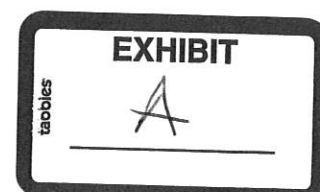
Jaimie Park, Attorney for AB/GRIP

3
4 **I. Qualifications and Background.**
5

6 My name is Kathy Jean Martin and I am providing expert testimony in this rule-making
7 proceeding at the request of Amigos Bravos and Gila Resources Information Project, collectively
8 referred to as AB/GRIP. My education includes a Bachelor of Science in Petroleum Engineering
9 (1987) and a Master of Science in Civil Engineering (1989), both from the University of
10 Oklahoma with an additional 50 hours of graduate coursework after my Masters. I am a
11 registered Professional Engineer in New Mexico (#21522) in the field of Civil Engineering. For
12 the past twenty years, I have been a private engineering consultant focusing primarily on state
13 and federal environmental permits related to ground and surface water protection, as well as
14 permitting related to air pollution and odor control.

15 Specifically, I have performed third-party engineering evaluations of waste management
16 systems proposed for confined animal feeding operations (CAFOs), including dairy, swine, and
17 poultry facilities. I have performed hundreds of evaluations of the technical and regulatory
18 completeness of permit applications for livestock production waste management systems as they
19 compare to state and federal regulations in 22 states across the country. This national experience
20 can be useful to the Water Quality Control Commission if asked to compare regulatory and
21 permitting language used in New Mexico to similar language used elsewhere in the US.

22 My experience includes development of state environmental regulations for surface
23 impoundments and land application for industrial facilities in Oklahoma while employed with
24 the Oklahoma Water Resources Board. In my six years with the state, I drafted water quality
25 permits for industrial wastewater and oversaw closure of waste lagoons and impoundments,



1 including groundwater impact assessments. At the Oklahoma Water Resources Board I attended
2 NPDES permit writer training. I was trained in state and federal water and air quality
3 regulations, including Title V Air Permit writers training and completed numerous classes on
4 Clean Air Act components including New Source Review, Hazardous Air Pollutants, and air
5 pollution control equipment and monitoring. I helped create and then participated in multi-media
6 permit and compliance assistance projects while employed in the Customer Assistance
7 Department at the Oklahoma Department of Environmental Quality.

8 For three years I was the Project Officer of the Tar Creek Superfund Site, an abandoned lead
9 and zinc mine that spanned about 40 square miles in the Tri-State Mining District of northeast
10 Oklahoma which in 1989 was the number one Superfund Site in the nation.¹ The site included
11 over 500 million tons of waste rock and chat, 1320 mine shafts, 300 miles of underground mine
12 tunnels, and thousands of exploratory boreholes. When mining ceased in the 1970's, the mines
13 located in the Boone aquifer filled back up with groundwater and acid mine drainage surfaced
14 via abandoned wells and boreholes throughout the region causing significant adverse impacts to
15 surface water from Tar Creek to Spring River and catastrophic damage to the Boone aquifer.
16 During my tenure, I oversaw the design and implementation of a regional groundwater
17 monitoring project looking for contamination between the Boone formation and the underlying
18 Roubidoux aquifer. The project was funded through EPA Region VI and performed by the US
19 Geological Survey Oklahoma City Water Resources Division.

20 After leaving employment with the state, I started Martin Environmental Services and
21 provided environmental consulting services related to air toxics permitting and EPCRA toxic

¹ See <http://www.deq.state.ok.us/lpdnew/SF/Superfund%20Project/SF%20Site%20Summaries/TarCreek.html>

1 inventory reporting. In 1997, I started working on livestock production wastewater issues in
2 Oklahoma assisting landowners adjacent to proposed CAFOs with public comments and
3 adjudicatory hearings related to swine facility CAFO permits. For the past 20 years I have been
4 working on regulatory and permitting issues related to livestock production in 22 states across
5 the country.

6 In 1998, I was hired by Seward County Commissioners to draft a comprehensive set of
7 county regulations that dealt with all aspects of waste management of livestock production
8 facilities. In 1997 and 1998 I participated on a daily basis with the crafting of state regulations
9 for swine facilities in Oklahoma and Colorado. Since that time I participated to a lesser extent in
10 rule-making for confined feeding operations in Kansas, Nebraska, and Indiana. In 2016, I served
11 as an expert witness for Dakota Rural Action during public hearings related to the modification
12 and renewal of the state/federal General Permit for CAFOs.

13 From 2009 to 2015, I was an active participant and contributor to the New Mexico Dairy
14 Rule, a legislatively mandated rule-making in New Mexico, and testified before the WQCC on
15 numerous occasions during that long rule-making process. In 2012, I served as an expert witness
16 during the Pit Rule hearing in the New Mexico Oil Conservation Division where I testified about
17 pit liners, liner failure, groundwater contamination and subsequent need for stricter regulations.
18 In 2015, I served as an expert in New Mexico for the Appellants during the Stage II Dona Ana
19 Dairy Abatement Plan hearings. I was accepted as an expert and provided testimony to the New
20 Mexico Land Office in 2016.

21 I have been recognized as an expert in Civil Engineering related to groundwater and waste
22 management systems not only in front of the WQCC here in New Mexico, but also in District

1 Court in Nebraska, Chancery Court in Kentucky, and in Adjudicatory Hearings related to
2 environmental permitting, Administrative Hearings for rule-making for livestock waste
3 management systems, and have presented expert testimony at hearings, trials, and depositions. A
4 current list of my testimony as an expert witness is provided at the end of my written direct
5 testimony (Exhibit A).

6 **II. Introduction.**

7
8 My written direct testimony focuses on the concept of “permit amendment” as proposed in
9 NMED’s Corrected Amended Petition for rule-making dated August 7, 2017 and the alternative
10 options to that language as proposed by AB/GRIP in their Corrected Statement of Position
11 submitted by the New Mexico Environmental Law Center (NMELC) on August 8, 2017 (Exhibit
12 B). I have reviewed NMED’s Corrected Amended Petition, the current 20.6.2 NMAC
13 regulations, the New Mexico Water Quality Act, the New Mexico Solid Waste and Air Quality
14 environmental statutes and regulations, groundwater regulations and statutes in Arizona, and
15 federal environmental regulations that also define the concept of permit modification and
16 amendment.

17 In preparation for this testimony, I spent about 20 hours reviewing about one hundred (100)
18 permit amendments that were approved by NMED between May 2006 and July 2017, including
19 91 mining related amendments. I prepared a spreadsheet of the 91 mining permit amendments
20 that includes the date of approval, date of request, the Discharge Permit (DP) number, a brief
21 description of the change, and the date of last permit issuance. (Exhibit D).

22 The permit amendments were obtained through several IPRA requests made by NMELC.
23 (Exhibit C). The vast majority of these permit amendments were for the mining industry, but

1 also included some for the dairy industry. Due to the long response time for IPRA requests,
2 other industry permit amendments approved by NMED and the associated permit amendment
3 requests could not be reviewed at this time and thus will not be included in this direct testimony.
4 This expert reserves the right to include further testimony related to the documents yet to be
5 received from NMED.

6 Once I reviewed the 91 mining permit amendments approved by NMED, further IPRA
7 requests were submitted to NMED to obtain copies of the associated permit amendment requests
8 for seventeen (17) different mining discharge permits and copies of the contemporaneous permit
9 at the time of each permit amendment request. (Exhibit C). I then spent another 20 hours
10 reviewing those documents in groups of existing permit, permit amendment request, and NMED
11 permit amendment approval in an effort to understand the processes and management decisions
12 made by both the industry and NMED with respect to why and how permit amendments were
13 requested and approved.

14 **III. NMED's Proposed Changes Regarding Discharge Permit "Amendment".**

15 In their August 7, 2017 Corrected Amended Petition, which includes the entire 20.6.2
16 NMAC with proposed underline and strike-out, NMED proposes the new definition of "permit
17 modification" as follows:

18 (5) "discharge permit modification" means a change to the requirements of a discharge
19 permit that result from a change in the location of the discharge, [~~a significant increase~~
20 ~~in~~] the quantity of the discharge, or a [~~significant~~] change in the quality of the discharge
21 [~~;~~] that does not qualify as a discharge permit amendment, or as required by the secretary;

1 Thus, the key elements of what constitutes a permit modification can be boiled down to what
2 impact that “change to requirements of the permit” will have with respect to the location,
3 quantity or quality of the discharge. The actual qualifications or triggers for change in location,
4 quantity, or quality is proposed by NMED in the new term and definition for “permit
5 amendment” as follows:

6 (4) “discharge permit amendment” means a minor change in the requirements of a
7 discharge permit that meets the requirements of 20.6.2.3109.I NMAC, and does not result
8 in:

9 (a) a change in the location of a discharge that would affect groundwater beyond
10 that impacted by the existing discharge location,

11 (b) an increase in daily discharge volume of greater than ten percent of the daily
12 discharge volume approved in the most recent discharge permit approval,
13 renewal, or modification for an individual discharge location, and where the sum
14 of any volume increases via amendments during a permit term is greater than ten
15 percent of the approved, renewed or modified discharge permit volume, or greater
16 than 50,000 gallons/day, whichever is less,

17 (c) any increase in discharge volume for a facility that is conducting abatement of
18 water pollution,

19 (d) an increase in an effluent limit set forth in the most recent discharge permit
20 approval, renewal or modification for an individual discharge location, or

21 (e) introduction of a new water contaminant.

1 **IV. Origin of NMED’s proposed “Discharge Permit Amendment” Action.**

2 The definition for discharge permit amendment is similar to the definition approved in the
3 Copper Rule. It should be noted that the Copper Rule does not have a unique definition for
4 “permit modification”, so one would need to rely on the definition as it is proposed in this rule-
5 making.

6 (19) “Discharge permit amendment” means a minor modification of a discharge permit
7 that does not result in a significant change in the location of a discharge, an increase in
8 daily discharge volume of greater than 10% of the original daily discharge volume
9 approved in an existing discharge permit for an individual discharge location, a
10 significant increase in the concentration of water contaminants discharged, or
11 introduction of a new water contaminant discharged.

12
13 **V. NMED’s Reason for Proposed “Discharge Permit Amendment” Action.**

14 In the May 1, 2017 Petition to Amend the Ground and Surface Water Protection Regulations,
15 NMED provides a brief Statement of Reasons at the end of the petition. With respect to the new
16 definition, the reason put forth by NMED is as follows:

17 (3) In the Definitions section, the Department proposes to add a definition for “discharge
18 permit amendment” in order to codify historical and current practice, defining an
19 amendment in relation to a discharge permit modification. Language is also inserted
20 throughout the Rules in order to accommodate this new term.

21 NMED offers up this defense of ‘historical and current practice’ without any reference to
22 statutory authority and fails to mention that NMED has, at the request of the regulated entities,

1 been changing the requirements of individual discharge permits outside of the public
2 participation process literally hundreds of times for at least 10 or more years. In fact, by using
3 the unauthorized permit amendment process to do what can only be interpreted as permit
4 modifications, the regulated entities have enjoyed a seemingly limitless ability to change their
5 permit requirements - with the public none-the-wiser. These permit changes were improperly
6 administered by NMED without charging a fee, when if they had been properly administered as a
7 permit modification, the fees could have been in the thousands of dollars. I have worked with
8 regulatory agencies in 22 states across the country and I have never seen such a massive
9 disregard for the sanctity of public participation and due process.

10 It is my intent to shine a bright light on the two most significant ways in which NMED and
11 industry have abused the improper action of "discharge permit amendments". I will first
12 demonstrate how a number of NMED's approved permit amendments should have been
13 administered as a permit modification pursuant to the current 20.6.2 NMAC because such
14 amendments changed the location, quantity and/or quality of a discharge.

15 I will then demonstrate how NMED and industry have abused "discharge permit
16 amendments" through the following: the use of one amendment for multiple discharge permits;
17 the use of amendments as part of corrective action to unauthorized discharges; the approval of
18 numerous amendments during a permit cycle; and the use of amendments to relocate facility
19 infrastructure. I will provide an example of how "amendments" approved by NMED may
20 violate other state and/or federal law related to construction and waste management. I will show
21 numerous examples of how the permit amendment process has been used, not to make minor and
22 insignificant changes to the permit, but to provide easy agency approval outside of the public
23 participation process for major new construction with minimal engineering designs and

1 specifications (if at all) to supplement the administrative record upon which the statutory
2 issuance of a discharge permit rely.

3 I will demonstrate that there are many “requirements of the permit” that were changed by
4 amendment that would never impact the location, quantity, and/or quality of the discharge, but
5 those changes would be of significant concern to communities adjacent to and downstream from
6 those permitted discharges. For example, changing the location of monitoring wells, the
7 frequency of monitoring, the method of gathering samples, the contaminants analyzed, the
8 method of reporting monitoring results are all important “requirements of the permit” and yet if
9 changed would have absolutely no impact on location, quantity, or quality of the discharge.

10 Under NMED’s proposed amendments, these important “requirements of the permit” could
11 be changed at any time, with an unlimited number of amendment requests, for no additional fee,
12 and with extremely minimal efforts to provide public notice. I will demonstrate how this
13 particular danger and abuse of multiple “permit amendments” has occurred through a case study
14 of two permit terms of the discharge permit DP-455.

15 Prior to this rule-making and prior to the Copper Rule, it is my observation that the
16 “historical and current practice” of NMED has been to receive written/oral requests from the
17 permittee to change just about any requirement in the discharge permit one could imagine (*See*
18 *generally* Exhibits E and F). The permit amendment requests would be evaluated by NMED and
19 then an approval letter (or rarely, a denial) was issued by NMED. It cannot be emphasized
20 enough that many of the permit amendments approved by NMED are not minor changes, but
21 rather are significant changes to the requirements of the permit. These significant changes
22 occurred on a regular basis for years without charging fees and bypassing traditional public

1 notice, transparency and due process – and under NMED’s proposed definition for “permit
2 amendment” that practice will continue.

3 Finally, these permit amendment approvals occurred even when the discharge permit to be
4 changed was actually expired (possibly with administrative extensions) and a few occurred while
5 NMED was in possession of a permit renewal and/or modification application for the same
6 discharge permit. If you look at my spreadsheet of the 91 permit amendments (Exhibit D) you
7 can easily find the date of the last issued permit in the far right hand column, add five years to
8 that date and then compare to the date of permit amendment request and approval to see that this
9 is not a rare phenomena. In fact, of the last ten permit amendments in 2016-2017, only one
10 permit was not expired when NMED issued a permit amendment approval.

11 **VI. A Review of NMED’s Historical and Current Practice.**

12 **A. Amendments That Should Have Been Administered As Modifications Pursuant** 13 **To Current Regulations.**

14
15 I will now provide testimony about NMED’s “historical and current practice” with respect to
16 what permit amendments were requested and how NMED evaluated those requests to determine
17 if the approval would create a new discharge location, a change in discharge quantity, or alter the
18 chemical composition or quality of the discharge.

19 **1. DP amendments approved for new discharges (change in location).**

20
21 My first example of a discharge permit amendment issued for a new location that should
22 have been administered as a permit modification relates to DP-213 for Chino Mines Ivanhoe
23 Concentrator. The second example I will testify about today relates to a permit amendment to
24 DP-1681 for Intrepid Potash HB Potash Solar Solution Mine.

1 ***a. DP-213 Chino Mines Ivanhoe Concentrator.***
2

3 On November 3, 2016 Chino Mines submitted a permit amendment request for DP-213 to
4 allow Chino to discharge domestic wastewater from the septic tank at the Ivanhoe Concentrator
5 to Reservoir 4A at a maximum rate of 3200 gallons per day. (Exhibit F1). Under DP-213,
6 Chino was already permitted to discharge that domestic wastewater to the tailings pipelines that
7 would direct it seven miles south to the tailings pond, but they wanted an alternative disposal
8 site. (Exhibit G1). The request was one paragraph long and included a check for \$500.00. The
9 amendment request included the explanation that Reservoir 4A is “a component of the historical
10 PLS launder system for the South Stockpile, which is authorized to receive domestic waste under
11 Discharge Permit 526 from other operational areas.” At the time of the permit amendment
12 request, the current DP-213 issued on June 6, 2005 had been expired for over six years.

13 NMED approved the amendment to DP-213 without discussion of whether Reservoir 4A is a
14 new location. (Exhibit E4). Under the Copper Rule, a discharge permit amendment is a minor
15 modification that does not result in a significant change in the location of the discharge. It
16 should be noted that Reservoir 4A is about 500 feet from the Ivanhoe Concentrator buildings
17 located on the west side of the mining operation, whereas the tailings pipeline takes the
18 combined flow of domestic wastewater and tailings wastewater about seven miles south of the
19 Ivanhoe Concentrator through nine miles of pipelines. It should be easy to agree Reservoir 4A is
20 a new location for the Ivanhoe Concentrator domestic wastewater under DP-213 because there is
21 a significant difference between 500 feet and seven miles.

22 ***b. DP-1681 Intrepid Potash HB Potash Solar Solution Mine.***
23

24 On November 7, 2016 Intrepid Potash submitted a permit amendment request to “construct
and operate a brine header for the sale of brine to oil and gas operations, and to discharge process

1 brine from the HB Plant facility and injectate brine from the Tailings Brine Return (TBR) pond
2 to the HB solar evaporation ponds.” (NMED has not provided us with this request; this
3 information derives from the November 18, 2016 NMED amendment approval letter; *see* Exhibit
4 E40). For our purposes today we will focus on the new brine header as a new discharge location.
5 At the time of the permit amendment request, the current DP-1681 was issued on July 10, 2015.
6 (Exhibit G4). NMED’s approval letter dated November 18, 2016 states this amendment would
7 allow new construction in its approval language as follows (Exhibit E40):

8 “A new pipeline will be constructed from the West Plant brine storage tank to a new
9 brine loadout header (to be constructed). Oilfield service vendor trucks would load brine
10 at the header location for sale to oil and gas companies.”

11 Clearly this is a new discharge location, therefore the request should have been administered as a
12 discharge permit modification under the current regulations.

13 **2. DP amendments for new discharges (changes in quality).**

14
15 Next I will discuss one example of a permit amendment that appears to change the *quality* of
16 the discharge and yet was not processed as a permit modification. Whether this change in
17 discharge quality was significant or not should have been addressed through public comment and
18 a public hearing under the current regulations for modifications.

19 ***a. DP-166 Freeport-McMoRan Tyrone, Inc. SX/EW and Leach*** 20 ***Stockpiles.***

21
22 In December 2015, Freeport-McMoRan Tyrone (FM-Tyrone) requested a permit amendment
23 for DP-166 so they could double the concentration of sulfuric acid from 50 pounds per ton of
24 oxide material to 100 pounds per ton. (Note: For this particular example NMED has not
25 provided us with the corresponding permit amendment request. References I make to the request

1 is either directly quoted or paraphrased from information provided in the February 1, 2016
2 Approval letter; see Exhibit 41). The rationale provided for the doubling of sulfuric acid
3 application rate was that the:

4 “[o]xide ore from the Little Rock Mine has a high carbonate content which tends to
5 neutralize the effect of the sulfuric acid and it is anticipated the quality of the pregnant
6 leach solution (PLS) will not change due to the neutralizing effect of the carbonates.”

7 NMED approved the request on February 1, 2016 without any new condition to prove that
8 the quality of the pregnant leach solution would remain the same even though the concentration
9 of sulfuric acid used to dissolve the rock material was doubled. (Exhibit E41). Meanwhile the
10 approval letter indicates that the current DP-166 issued on May 27, 2005 was amended four
11 times prior to this amendment, was currently expired by six years, and no mention is made by
12 NMED as to whether a timely renewal application was submitted by FM-Tyrone back in
13 February 2010 (120 days prior to permit expiration). Regardless, it is clear that this amendment
14 authorized a change in quality of a discharge that may be significant. Therefore, under the
15 current definition of “modification” it should have been administered as a modification whereby
16 the public would have received notice, an opportunity to provide comment, and an opportunity
17 for a public hearing on this change in discharge quality.

18 **3. DP amendments for new discharges (changes in quantity).**

19 I will now discuss two examples of permit amendments that appear to change the *quantity* of
20 the discharge and yet were not processed as permit modifications. Whether this change in
21 quantity was significant or not should have been addressed through public comment and a public
22 hearing under the current regulations for modifications. The first example is DP-1236 for the

1 FM-Tyrone Little Rock Mine expansion and the second example is DP-933 for Chevron Questa
2 Tailing Facility.

3 *a. DP-1236 FM-Tyrone Little Rock Mine.*
4

5 On February 13, 2013 FM-Tyrone requested a permit amendment to DP-1236 to construct a
6 new set of sumps, pumps, and ponds in order to dewater Little Rock mine in anticipation of new
7 excavation and deepening of the open pit. (Exhibit F8). A description of the dewatering system
8 is provided in the request is paraphrased as follows:

9 “Water collected from the dewatering sumps in the open pit will be pumped to the Pit
10 Booster Station at 5800 feet where it will then be pumped through an 8-inch diameter
11 High Density Polyethylene (HDPE) pipeline to the Phase I Booster Station on the
12 northwestern edge of the pit. The Phase I Booster Station will have two unlined sumps
13 that will “also serve as settling basins for sediments” with volumes of 480,000 and
14 290,000 gallons.”

15 Water from these two sumps will be combined with seepage collection flows in CLDS and
16 CLDS-1 (less than 2 gallons per minute) and then pumped through another pipeline to the three
17 new Decant Ponds. The volumes of the ponds are 1.4 million gallons for Decant Ponds 1 and 2
18 and 1.5 million gallons for Decant Pond 3. The Decant Ponds will be gravity drained in series in
19 order to facilitate settling of solids. After settling has occurred in the Decant Ponds, the
20 resultant wastewater will be gravity fed through another HDPE pipeline to “the existing 1X1
21 Pond by tying into the existing permitted seepage conveyance line in California Gulch.”

22 Basically, this permit amendment request is a comprehensive plan to dewater the mine pit to
23 allow future excavation and will thus generate millions of gallons of new and potentially

1 contaminated water that is pumped through several new pipelines to new pits and sumps to end
2 up at a discharge location (1X1 Pond) that was previously permitted for a different mine and
3 purpose (Ohio Mine dam). The water collected in 1X1 Pond will be “pumped via an existing
4 permitted pipeline across reclaimed 1A Tailing Dam to an existing booster pump station at the
5 toe of the Tyrone 3A Leach Stockpile” and from there to the raffinate tanks at the SX/EW plant.

6 The request includes several maps, one of which shows the location of the different phases of
7 excavation by depth and the location of the three Decant Ponds just north of that excavation
8 effort. The aerial map shows the new pipeline has to travel at least a mile north to get the decant
9 pond water to the 1X1 Pond. The pipeline from the 1X1 Pond travels east for a quarter mile then
10 turns north and makes a half circle around the abandoned mine area then heads south for a mile
11 to the SX/EW. This is a very circuitous route of 4 miles or more to get the new water source
12 over to the SX/EW, which is actually about one and a third miles directly east of the new Decant
13 Ponds.

14 NMED approved the amendment on April 19, 2013 (Exhibit E33) and on page 2 the letter
15 states, “The Little Rock Mine Discharge Permit DP-1236 is currently in the process of being
16 renewed.” The current DP-1236 was issued December 27, 2000, which means at the time of the
17 amendment request and approval it had been expired for eight years. (Exhibit G5). This
18 particular amendment not only increases the *quantity* of discharge at the SX/EW but it also
19 allows construction of a *new discharge location*. There is absolutely no reason why this new
20 construction should have been administered as a permit amendment. Rather, the request should
21 have been considered a major modification and denied, especially since NMED staff was already
22 in the process of renewing the permit. Furthermore, the issue of whether this was a significant
23 increase in discharge quantity should have been addressed through public comment and a public

1 hearing under the current regulations for modifications. The proper regulatory path would have
2 been to require the new construction proposal be submitted to NMED in the form of a renewal
3 and modification permit application.

4 ***b. DP-933 Chevron Mining (CMI) Questa Tailing Facility.***
5

6 Chevron Mining submitted a permit amendment request on July 28, 2010 to “increase the
7 annual volume limit and discharge area of contaminated water usage for dust control at the
8 Tailing Facility” from one million to ten million gallons per year. (NMED has not provided us
9 with the July 28, 2010 request, therefore see Exhibit E32). CMI operates an underground
10 molybdenum mine near Questa, NM that produces tailings from the ore processing operation.
11 The Tailings Disposal Facility is permitted to handle 22,000 tons per day of tailings at the
12 Tailings Impoundments. Those impoundments are unlined and were constructed in “two deeply
13 incised arroyos”. The activities that produce the discharge at this facility are as follows:

14 “Tailings seepage water, extracted contaminated ground water, and decant water from the
15 tailings is collected and may be discharged to the Red River pursuant to the existing
16 National Pollutant Discharge Elimination system (NPDES) permit (Permit No.
17 NM0022306) issued by EPA **or back to the Facility pursuant to this permit.**”
18 (Emphasis added).

19 The current NMED permit (issued February 29, 2008; Exhibit G6) at the time of the
20 amendment allowed for a “total of one million gallons per year of treated Mine Water or water
21 from the Seepage Interception System for dust control on roadways by surface spraying from a
22 water truck(s).” In addition, Condition 3(g) of the permit required a report within 90 days of
23 permit issuance (June 2008) from CMI that would:

1 “[d]emonstrate how ground water standards will not be exceeded as a result of the
2 spraying. The report shall include a map that delineates the areas where the discharge will
3 occur, calculations indicating the approximate land surface area on which the discharge
4 will occur, frequency of spraying, and calculations showing the approximate volume of
5 water that will be applied.”

6 The NMED approval letter does not mention whether they actually received that required
7 2008 report and considered any of its findings with respect to where the dust suppression will
8 occur and if that activity caused an exceedance of ground water standards. (Exhibit E32).
9 NMED did not make its determination about significant increase in a specific discharge volume
10 by comparing ten million gallons to one million gallons, but rather by comparing the 10 million
11 gallons to the total mine discharge. NMED’s discharge volume comparison is a problem and the
12 issue of whether the requested discharge increase was significant, as compared to the proper
13 specific volume, should have been addressed through public comment and a public hearing under
14 the current regulations for modifications.

15 **B. One Amendment Request for Multiple Permits.**

16
17 The following testimony focuses on NMED’s practice of using one permit amendment
18 request to change more than one discharge permit. The first example is for a multi-permit
19 amendment requested before the effective date of the Copper Rule and the second example
20 occurred after the effective date of the Copper Rule.

21 ***1. Multi-Permit Amendment Request for Chino Mines May 18, 2012.***

22
23 On May 18, 2012 Chino Mines submitted one permit amendment request asking NMED to
24 amend four discharge permits to allow a new use of 1.5 million gallons of mining wastewater as

1 dust suppression on haul roads at the Santa Rita open pit. (NMED has not provided us with the
2 request; this information is from the June 22, 2012 approval letter; *see* Exhibit E38). One permit
3 amendment request was made to change or amend the following four discharge permits: DP-376,
4 DP-459, DP-526, and DP-1568.

5 The reason provided in the request was that new dust suppression was needed to meet air
6 quality requirements. NMED issued the permit amendment approval on June 22, 2012. (Exhibit
7 E38). The NMED approval claims that since it would be difficult to specify the exact volume of
8 dust suppression for each discharge permit, the value of 1.5 million gallons per day would
9 represent the total amount of water removed from the various water sources, not the amount
10 sprayed at each discharge permitted area. Again, this method is problematic in relation to the
11 issue of whether the discharge quantity request was significant and should have been addressed
12 through public comment and public hearing under the current regulations for modifications.

13 ***2. Multi-Permit Amendment Request For Chino Mines March 24, 2015.***

14

15 A similar example can be made after the Copper Rule was in effect where on March 24, 2015
16 Chino Mines submitted a permit amendment request asking NMED to amend six of their
17 discharge permits to allow Chino Mines to increase the volume of dust suppression from 1.5 to 2
18 million gallons per day and to increase the sources of various waters and wastewaters to be used
19 for dust suppression on haul roads. (Exhibit F6). One permit amendment request was made to
20 change the following six permits: DP-376, DP-459, DP-493, DP-526, DP-591, and DP-1568.
21 NMED approved the request 32 days later on April 28, 2015. (Exhibit E8). In the permit
22 amendment approval, NMED explains that this is actually an amendment of the prior amendment
23 approved on June 22, 2012. This new permit amendment added two new sources of water, a new

1 water spout to add to the four previously approved, and an increase in the discharge volume used
2 for dust suppression from 1.5 to 2.0 million gallons per day.

3 This particular permit amendment approval occurred under the Copper Rule, so there is a
4 statement by NMED that the increase of a half million gallons would be less than 10% of the
5 “cumulative discharge volumes previously approved”. If you compare a half million gallon
6 increase to the original 1.5 million gallon specific discharge volume, then it represents an
7 increase of 33% of the original specific discharge volume. Again, the issue of whether this
8 discharge volume increase is significant or not should have been addressed through public
9 comment and a public hearing under the current regulations for modifications.

10 **C. DP Amendments Used As Part Of Corrective Action For Unauthorized**
11 **Discharges.**

12
13 I would like to now provide two examples of how NMED used the permit amendment
14 process as part of a corrective action when an unauthorized discharge is involved. The first
15 example is for Chino Mines Northeast Lampbright Booster Station that was found to have been
16 constructed without a permit as a result of a spill report sent to NMED that identified the reason
17 for the spill was a failed pump from this unpermitted booster station. The second example is for
18 Freeport-McMoRan’s Tyrone Gettysburg Pit and Leach Field for a PLS collection system that
19 caused an unauthorized discharge, whereby NMED learned of the prior unpermitted construction
20 of the pregnant leach solution (“PLS”) collection system in the permittee’s corrective action
21 report.

22 ***1. DP-376 Chino Mines Lampbright.***
23

24 On February 2, 2006 Chino Mines requested a permit amendment to DP-376 to “incorporate”
25 the Northeast Lampbright Booster Station to satisfy a condition to the corrective action report

1 dated January 11, 2006. (Exhibit F2). The corrective action report was submitted by Phelps
2 Dodge to serve as written notification of a spill of less than 7500 gallons of raffinate that
3 occurred on August 31, 2006 at Chino Mines. According to Chino Mines, this spill, which
4 occurred within the permitted leach area of the Main Lampbright Stockpile, was the result of
5 pump failure and was reported in their November 1, 2005 quarterly monitoring report. The
6 current DP-376 issued on May 14, 2004 did not include this Northeast Lampbright Booster
7 Station in the Flow Description of the facility. (Exhibit G2). The permit amendment approval
8 dated June 14, 2007 (Exhibit E5) adds a new paragraph to Condition 7 which serves to
9 “incorporate” the booster station as follows:

10 “7(a) Northeast Lampbright Booster Station (NLBS): Chino is authorized to operate the
11 Northeast Lampbright Booster Station to collect and transfer raffinate. Raffinate shall be
12 collected in a stainless steel tank with an operating volume of 400,000 gallons and a
13 designed flow of 23, 328,000 gallons per day. Raffinate enters from the solution
14 extraction/electrowinning (SX/EW) plant and is discharged to the Lampbright South or
15 Main leach piles.”

16 The permit amendment process was used to change the discharge permit to acknowledge that
17 Chino Mines had constructed a booster station that was not previously listed in the discharge
18 permit (and therefore not approved by NMED) and the only reason NMED knew about it was
19 because of a failed pump spill. If this unauthorized discharge had been handled as a permit
20 modification, there would have been public notice, public comment, opportunity for a public
21 hearing, and the permittee would have had to pay a large fee.

1 **2. DP-455 FM-Tyrone Gettysburg Pit and Leach System.**
2

3 Similarly, on December 11, 2009 NMED approved a permit amendment for Freeport-
4 McMoRan's Tyrone Mine, DP-455, to include the construction and operation of a reconfigured
5 pregnant leach solution (PLS) collection system on the 6C Leach Stockpile. (Exhibit E11). The
6 reason for the permit amendment was because there was an unauthorized release of four million
7 gallons of PLS into the Gettysburg Pit, as noted in Tyrone's written notification and correction
8 action report dated June 19, 2009.

9 NMED's approval letter states, "The 6C PLS collection and conveyance system was not
10 approved by NMED for construction or operation at the time of the release." A Notice of Non-
11 Compliance was issued on September 2, 2009 "requiring additional corrective actions and a
12 discharge permit amendment to incorporate the new facility into DP-455." In this case, the
13 permittee constructed and operated a new facility process without a permit, had a significant spill
14 of highly concentrated mine wastewater and then NMED determined that the solution was to
15 require Tyrone to ask for a permit amendment rather than apply for a permit modification.

16 At the time, current permit DP-455 was issued on December 13, 2004 and would have
17 expired December 13, 2009 or *two days after the permit amendment approval*. (Exhibit G3). A
18 better solution would have been to require Tyrone to submit a permit modification application so
19 that NMED could reissue and modify the permit. That permit modification process would have
20 required public notice and public participation, as well as a large fee. Instead, no notice was
21 provided and the permit expired two days later. Regardless, the construction and operation of a
22 reconfigured pregnant leach solution (PLS) collection system on the 6C Leach Stockpile should
23 have been administered as a modification under the current regulations.

1 **D. DP Amendments That Occur More Than Once In A Permit Cycle: A Case Study**
2 **Of DP-455.**

3
4 The following testimony focuses on one discharge permit, DP-455, and includes a discussion
5 of all of the various permit amendments that have been approved by NMED more than once in a
6 permit cycle. This permit was chosen to illustrate this problem because even more permit
7 amendments were issued in the following permit cycle for DP-455.

8 ***1. DP-455 FM-Tyrone Gettysburg Pit and Leach System Issued December 13,***
9 ***2004.***

10
11 The discharge permit DP-455 issued on December 13, 2004 was amended in 2009, as
12 discussed earlier in this testimony, and amended prior to that in 2008. (Exhibit G3). On May 8,
13 2008 FM- Tyrone requested a permit amendment for DP-455 (Gettysburg Pit and Leach System)
14 that was actually a request to amend a previous amendment request sent to NMED on March 13,
15 2008. (Exhibit F3). NMED granted a Temporary Permission to Discharge on March 17, 2008
16 so that Tyrone could “resume leaching operations that report to the bottom of Gettysburg Pit
17 while monitoring the hydrologic response in the immediate vicinity”. The May 8, 2008
18 amendment request included a proposal to replace two existing monitoring wells with three new
19 monitoring wells and Tyrone asked for five new conditions to be put on the permit via the
20 amendment process. The five new conditions related to balancing the operating level of the pit
21 lake and the water level observations in the three new monitoring wells.

22 It should be noted that the information NMED provided to NMELC regarding this particular
23 permit amendment request did not include a map of where the old or new monitoring wells
24 would be located with respect to the Gettysburg pit lake. That information was apparently
25 provided in the application for the Temporary Discharge. It should also be noted that in the May
26 8, 2008 permit amendment request, Tyrone states the three new monitoring wells were “installed

1 between December 2007 and February 2008” as part of a hydrologic investigation in early 2008.
2 That means they were installed long before the original March 13, 2008 permit amendment
3 request and before NMED issued the Temporary Discharge permit.

4 The impetus behind the March and May 2008 permit amendment requests was the fact that
5 the leaching operation was suspended in 2007 when the pit lake level in the Gettysburg pit
6 exceeded the water elevations in adjacent monitoring wells (GLD7A). It is interesting to note
7 that because of the May 15, 2008 permit amendment approval, monitoring well GLD7A is no
8 longer a part of the permit. The May 15, 2008 permit amendment approval acknowledges that
9 the current DP-455 was issued December 13, 2004. What the approval does not acknowledge is
10 that it would expire the following year, which would have been a good reason to administer this
11 as a permit modification.

12 This same discharge permit DP-455 was amended the previous year on February 9, 2007 to
13 reduce the frequency of reporting “all changes in pipeline operations that result in removal of
14 pipeline fluids in unauthorized discharge areas” from quarterly to semi-annually. (Exhibit E11).
15 The same 2007 amendment approval changed the requirement to collect samples from the
16 Gettysburg pit and 7B collection ponds quarterly to only collecting samples from the 7B
17 collection pond and then only reporting semi-annually. In addition, the list of groundwater
18 monitoring wells was amended to include two of the three “new wells” (455-2005-01 and 02)
19 that were discussed earlier in my testimony related to the 2008 permit amendment requests.

20 An amendment was made that added the words “and PLS” to the monitoring of the pit water
21 as follows: “accumulated water and PLS in the bottom of the Gettysburg Pit (Gettysburg PLS
22 pond) shall be sampled...” There were also changes to the conditions that spell out which

1 parameters the various water and wastewater samples would be analyzed for and finally that the
2 signed lab sheets can be retained on-site rather than be submitted with the now semi-annual
3 reports. The amendment approval also replaced Tables 1 and 2 in the December 13, 2004 permit
4 with amended Tables that reflect the changed frequency of sampling and parameters analyzed.

5 The same December 13, 2004 DP-455 permit was amended in 2010 to allow for the
6 “construction and operation of a pregnant leach solution (PLS) side slope collection sump on the
7 7B Leach Stockpile.” (Exhibit E14). The approval letter dated March 1, 2010 explains the
8 situation as follows:

9 “Seepage of PLS has been emerging along the upgradient side of a haul road constructed
10 on the northeast side slope of the 7B Leach Stockpile. PLS periodically emerges along
11 the haul road, but normally re-infiltrates back into the stockpile and is collected in the 7B
12 PLS Pond located directly downgradient. Due to recent storm events the seepage flow
13 rate has increased, therefore Tyrone is requesting the construction of a permanent
14 collection system to manage the seepage.”

15 The solution included constructing an earthen sump along the northeast flank of the 7B
16 Stockpile to collect the seepage and then install a HDPE pipeline to connect the new sump with
17 the 7B PLS Pond downgradient. The amendment approval makes a new condition in the permit
18 to require Tyrone to “submit as-built plans of the sump and associated pipeline.”

19 At this point DP-455 had been amended four times with the last amendment occurring after
20 the permit expired, without any mention in the permit amendment approval about whether or not
21 Tyrone had submitted a permit renewal application in a timely fashion (120 days before
22 expiration). However, we do know that the permit was finally reissued on August 17, 2010.

1 2. *DP-455 FM-Tyrone Gettysburg Pit And Leach System Issued August 17,*
2 *2010.*
3

4 The August 17, 2010 DP-455 was amended in December 9, 2013 to remove monitoring
5 requirements associated with the three new monitoring wells that were added to the permit by
6 amendment back in 2008. (Exhibit E17). If you recall, those three new monitoring wells
7 replaced two older monitoring wells in the 2008 permit amendment approval and were needed to
8 “verify that fluid levels in the Gettysburg Pit remain below the water level in adjacent
9 monitoring wells”. The request to remove the three monitoring wells was submitted by Tyrone
10 on July 23, 2013. (NMED has not provided us with the July 23, 2013 request; this information is
11 from the December 9, 2013 approval letter; *see* Exhibit E17).

12 NMED claims in the December 9, 2013 approval letter that these three wells are no longer
13 needed because:

14 “[w]ater level data have been collected at these wells for a sufficient period of time (5.5
15 years) to confirm the capture of groundwater in the Gettysburg Pit and the three wells are
16 no longer needed to confirm groundwater flow directions in the area. Since monitoring of
17 these wells began in 2008, the fluid level of the Gettysburg Pit has remained below the
18 water levels at the wells.”

19 Meanwhile, on November 20, 2013 Tyrone submitted a permit amendment request to change
20 DP-455 to allow for:

21 “[a]n increase in the permitted operational and maximum levels of pregnant leachate
22 solution (PLS) in the 6A PLS Collection Pond. The requested increase is required
23 because at its current location, the barge pump used to maintain pit fluid levels is

1 susceptible to rock fall damage from ongoing highwall instability, and in order to relocate
2 the barge pump, it is necessary to raise the level of the fluids in the collection pond.”

3 (NMED has not provided us with the November 20, 2013 request; this information is from the
4 December 6, 2013 approval letter; *see* Exhibit E16).

5 The Savannah Pit barge pump-related amendment approval is dated December 6, 2013
6 (Exhibit E16) just three days before the December 9, 2013 permit amendment (Exhibit E17).
7 The December 9, 2013 DP-455 permit amendment approval states on the second page under
8 Permit Conditions:

9 “The following conditions shall be added to the August 17, 2010 Discharge Permit DP-
10 344...”

11 Whereas the December 6, 2013 DP-455 permit amendment approval includes this statement
12 under the heading Amendment Description:

13 “DP-455 was modified May 14, 2013 to allow construction of the 6A leach stockpile
14 within the Savannah Pit.”

15 The same December 6, 2013 DP-455 permit amendment approval states on the second page
16 under Permit Conditions:

17 “The following conditions shall be added to the August 17, 2010 Discharge Permit DP-
18 344...”

19 Therefore, it is not clear if both December 2013 permit amendments are for the August 17,
20 2010 permit or for a modified permit issued on May 14, 2013 earlier that year. Had these permit
21 amendments been properly administered as modifications with general public notice and

1 opportunity for public comments, someone might have detected the inconsistencies of the
2 approval language and NMED could have addressed them.

3 On October 21, 2014 the Tyrone DP-455 was amended again by a request dated September
4 30, 2014. (Exhibit E18). In the NMED approval letter it states:

5 “Tyrone requests to amend the August 17, 2010 Discharge Permit, DP-455, to construct
6 a waste rock stockpile within the Gettysburg Pit, which is located inside the Tyrone Mine
7 open pit surface drainage area.”

8 In the Amendment Description, NMED explains:

9 “When construction of the waste rock stockpile is completed, it will hold approximately
10 56 million tons of waste rock. The stockpile construction sequence will be to initially
11 place an estimated 26 million tons of waste rock which will avoid the 6C-2 PLS
12 Collection Pond. A closure plan for the waste rock stockpile shall be included in the
13 renewal of the Tyrone Mine Supplemental Discharge Permit for Closure DP-1341.
14 During the initial construction sequence, a site within the Gettysburg Pit will be chosen
15 for construction of a new PLS collection pond to replace the 6C-2 PLS Collection Pond.”

16 The approval goes on to add seven new conditions to the August 17, 2010 Discharge Permit
17 one of which was to require the submittal of detailed plans 45 days prior to the construction of
18 the new PLS collection pond. This means that NMED is approving new construction before they
19 have even looked at engineering plans and specifications. Even under the Copper Rule’s
20 definition for “discharge permit amendments” this request should have been administered as a
21 modification, subject to public notice, comment and opportunity for a public hearing.

1 It should be noted that no mention is made to a modified DP-455 dated May 14, 2013,
2 therefore it is possible that a modified permit never existed and the December 6, 2013
3 amendment approval that mentions it was just plain wrong. The approval does mention that DP-
4 455 will expire on August 17, 2015. Regardless, DP-455 is a perfect case study in how NMED
5 and industry have abused discharge permit amendments to allow unlimited changes to
6 “requirements of a permit” that would qualify as modifications and material changes that may
7 not affect discharge location, quantity and/or quality, as is the case with changing monitoring
8 wells and sampling criteria, but are significant “requirements of the permit” in their own right
9 and of substantial concern to communities adjacent to and downstream of these permitted
10 facilities.

11 **E. DP Amendments Approved To Relocate Mine Infrastructure.**
12

13 Even though there are numerous examples of using the permit amendment process to
14 approve relocation of mining infrastructure, (*See Exhibits E23, -24, -27 and -30*), I would like to
15 focus on one example, DP-526, for Chino Mines Whitewater Leach System approved on August
16 6, 2013. (Exhibit E21).

17 ***1. DP-526 Chino Mines Whitewater Leach System.***
18

19 On June 10, 2013 NMED received a request from Chino Mines to amend DP-526 for the
20 “relocation of five pipelines on Chino’s West Stockpile and along the northwest side of the Santa
21 Rita Open Pit.” (NMED has not provided us with the request; this information is from the
22 August 6, 2013 approval letter; *see Exhibit E21*). The current permit at the time was issued
23 October 3, 2006 and was expired not quite a year at the time of the permit amendment request.

1 In the approval letter, the permittee explains the need to move the pipelines to make way for
2 “push back of the Lee Hill sub pit wall” that would occur in January 2014. The pipelines to be
3 moved included the following:

4 “[t]he Southside PLS Pipeline, a 30-inch diameter pipeline that conveys PLS from the
5 Southwest PLS tank to the SX/EW; the raffinate pipeline, a 30-inch diameter pipeline
6 that conveys raffinate from the SX/EW to Chino’s South and West Stockpiles; two 20-
7 inch diameter impacted storm water pipelines that convey storm water from Reservoir 4A
8 to the SX/EW facility; and one 8-inch diameter pipeline that conveys fresh water to the
9 Hydromet facility.”

10 The pipeline relocation project was divided into six corridor segments (A through F) in order
11 to capture pipeline releases that could occur as the pipelines were drained, flushed, and
12 disassembled. Numerous drainage ditches were identified as potential places where releases
13 could be captured. Clearly under the Copper Rule and 20.6.2 NMAC this was a massive
14 endeavor and should have been included in a timely renewal and modification permit
15 application.

16 The amendment was approved on August 6, 2013 with no explanation by NMED as to why
17 the agency thought relocating a massive pipeline infrastructure would not be an obvious
18 candidate for a permit modification.

19 **F. DP Amendments That May Violate Other State And Federal Law.**
20

21 Now I am going to provide testimony on an example of a permit amendment request that
22 was approved by NMED, yet the approval letter does not acknowledge that there are other state
23 and/or federal laws that may apply to the activity or construction included in the amendment.

1 ***1. DP-526 FM-Tyrone Whitewater Leach System.***

2 On February 21, 2014, FM-Tyrone requested a permit amendment to relocate the Frog Pond
3 and to “construct the Frog Pond along the toe of the West Stockpile.” (Exhibit F9). The reason
4 for the relocation of the Frog Pond was to accommodate the Lee Hill expansion. The request
5 included several construction diagrams and an aerial map showing the proposed new location.
6 The construction drawing labeled “Frog Pond Drain Pipe Section View” has a cross-section of
7 the pond that shows the downhill portion of the proposed dam would be constructed twenty (20)
8 feet above existing grade. NMED approved the permit amendment on March 27, 2014. (Exhibit
9 E24).

10 The permit amendment request did not have a description of the Frog Pond water
11 composition. However, in NMED’s approval letter, a brief description of the water composition
12 and the purpose of the Frog Pond were included as follows:

13 “The Frog Pond is one of four locations at the mine used for storage of process water that
14 is used for dust suppression on haul roads throughout the mine. Frog Pond process water
15 consists of a blend of Tailing Pond 7 decant water (DP-484) and potable water from
16 Chino water supplies.”

17 According to the Dam Safety Bureau in New Mexico, dam safety regulations are triggered
18 depending on the height of the dam and the volume of liquid stored. There are two different
19 triggers, one for dams constructed 25 feet or more in height with more than 15 acre-feet of
20 storage (4.8 million gallons) and a trigger for dams constructed 6 feet or more in height that
21 exceed 50 acre-feet of storage (16.3 million gallons).

22 Neither the permit amendment request nor the NMED approval included an estimate of the
23 volume of dust suppression water to be stored in the new Frog Pond. The NMED approval letter

1 does not discuss dam safety issues, so we cannot presume that NMED considered state and
2 federal laws that could impact the design of the Frog Pond.

3 **G. DP Amendments For New Construction.**

4 In this part of my testimony I would like to focus on just the issue related to using the permit
5 amendment process to allow new construction rather than using the permit modification process
6 which would have greater public notice, transparency, and due process. I will briefly provide the
7 date of the amendment approval, the name of the facility and permit number, the date of the last
8 issued permit at time of approval, and a brief description of the allowed construction. If the
9 permit was expired at the time of permit amendment approval, I will highlight that as well. There
10 are many examples of this short-circuiting around traditional public participation which I will
11 present in numerical order of the discharge permit number, not the date it occurred, such as:

12 1. November 8, 2012 approval to amend FM-Tyrone permit DP-435 (issued November 7,
13 2006) to allow construction of a new well for the collection of Pregnant Leachate
14 Solution (PLS) and once drilled allow for the transportation of pumped PLS through
15 2,650 feet of newly installed 12-inch diameter High Density Polyethylene (HDPE) pipe
16 to the SX/EW Feed Pond. This permit amendment was approved the year after the
17 existing permit expired. (Exhibit E9).

18 2. October 21, 2014 approval to amend FM-Tyrone Gettysburg permit DP-455 (issued
19 July 10, 2011) to allow the construction of a waste rock stockpile that will hold
20 approximately 56 million tons of waste rock. (Exhibit E18).

21 3. January 24, 2014 approval to amend Chino Mines Lampbright permit DP-376 (issued
22 June 17, 2010) to allow "the addition of an Acid Cure Tank on top of the Lampbright
23 Stockpile" with a maximum pumping rate of 1,100 gallons per minute discharge from the

1 tank. The Acid Cure Tank “will be filled via sulfuric acid hauling trucks” and will have
2 a storage capacity of 38,000 gallons. (Exhibit E7).

3 4. November 28, 2011 approval to amend TM-Tyrone permit DP-455 (issued July 17,
4 2010) to allow “the construction and operation of a Pregnant Leachate Solution (PLS)
5 booster station on the crest of 6C stockpile between Gettysburg and Savannah Pits.”

6 5. November 11, 2013 approval to amend Chino Mines permit DP-526 (issued August
7 17, 2010) to allow “construction of a conveyance channel (Phase One) and piping (Phase
8 Two) to better manage and capture impacted stormwater and sediment currently
9 discharging to Dam 13 during storm event.” The channel is proposed to be 600 feet long,
10 four feet wide, and five feet deep. The length of pipeline was not specified in the
11 approval. (Exhibit E15).

12 6. June 8, 2016 approval to amend Chino Mines permit DP-526 (issued October 3, 2006)
13 to allow “construction of four stormwater impoundments and associated pipelines to
14 better route stormwater away from the Lee Hill Pit high wall to improve open pit
15 stability.” At the time of this permit amendment approval, the permit had been expired
16 nearly five years and according to the notations by NMED in the approval letter, this
17 permit **had been amended twelve times**, eight of those approvals occurred after the date
18 of permit expiration. (Exhibit E27).

19 7. January 12, 2012 approval to amend Chino Mines permit DP-591 (issued September 1,
20 2006) to allow the use of overburden material from mining within the Chino Open Pit to
21 be used to “in-fill 5 areas at the Chino SX/EW to improve vehicle access.” Apparently,
22 there was a map with the permit amendment request that showed where these five areas

1 would be located, but neither the map nor a detailed description of the size of the areas to
2 be filled in was provided with the approval. (Exhibit E28).

3 8. January 17, 2012 approval to amend Chino Mines permit DP-591 (issued September 1,
4 2006) to allow installation of “1400 feet of HDPE pipeline and a 30-inch by 24-inch wye
5 junction from the stainless steel raffinate tank to the PLS Feed Pond” so that Chino could
6 transport PLS from the Southside area to either the PLS Feed Pond or to the top of the
7 Lampbright Leach Stockpile. (Exhibit E29).

8 9. May 8, 2013 approval to amend FM-Tyrone Little Rock Mine permit DP-1236 (issued
9 on December 27, 2000) to allow construction of the Pit Booster Sump, three decant
10 ponds, various dewatering sumps, and 15,000 gallon sediment sump, as well as to require
11 analysis of water from the Phase I Booster Station. This amendment approval served to
12 replace a prior amendment approval dated April 19, 2013. Please note that the discharge
13 permit expired nearly 8 years prior to these permit amendments. (Exhibit E34).

14 10. December 2, 2011 approval to amend Chino Mines South Stockpile Closeout Plan
15 DP-1340 (issued February 23, 2003) to change the configuration of the closure of the
16 stockpile to have less steep sideslopes. This particular approval states the permit “is
17 currently undergoing renewal pursuant to a timely renewal request.” This begs the
18 question of why would NMED take the time to amend a permit that it was already
19 reviewing for renewal? It is unclear whether the permit “renewal” application was
20 noticed as just a renewal rather than as a renewal and modification application because
21 the changes to the permit occurred before/during the renewal process. (Exhibit E35).

22 11. July 13, 2017 approval to amend Mosaic Potash Carlsbad permit DP-1399 (issued
23 September 30, 2011) to include a newly constructed Keiserite Crushing Plant and to

1 authorize the discharge of K-Mag brine slurry from the new plant to the Salt Stack using
2 a new slurry line. This is an approval for construction after the construction had
3 occurred. (Exhibit E37).

4 12. November 18, 2016 approval to amend Intrepid Potash permit DP-1681 (issued July
5 10, 2015) to “construct and operate a brine header for the sale of brine to oil and gas
6 operations and to discharge process brine from the HB Plant facility and injectate brine
7 from the Tailings Brine Return (TBR) pond to the HB solar evaporation ponds.” (Exhibit
8 E40).

9 **H. Denial Of Permit Amendment Request.**

10 Of the 91 permit amendment approvals that I reviewed, there were only two denial letters
11 issued by NMED. (*See Generally* Exhibit D) In my last example today, I would like to focus on
12 the February 8, 2007 denial of two permit amendment requests for the same facility permit.

13 Two permit amendment requests were submitted by Phelps Dodge Tyrone to change their
14 permit DP-670 (issued December 13, 2004) for the Savannah Pit and East Main Leach System.
15 The first request dated February 22, 2006 asked NMED to “incorporate additional facilities” into
16 their permit, including a Savannah Sediment Collection Pond with a 60 mil HDPE liner, a sump,
17 and portable floating barge pump and piping. (Exhibit F10). The second request dated January
18 19, 2007 focused on changing the “frequency of monitoring reports from quarterly to semi-
19 annually and make other minor changes in monitoring requirements.” (NMED has not provided
20 us with January 19, 2007 permit amendment request; this information is from the February 8,
21 2007 letter of denial; *see* Exhibit E31).

22 On February 8, 2007, NMED denied both permit amendment requests to amend DP-670.
23 (Exhibit E31). The NMED denial includes the following statement:

1 “PDTI is hereby notified that the amendment requested in the first letter to incorporate
2 the new pumping system will require a discharge permit modification rather than an
3 amendment.”

4 NMED’s reason for requiring a permit modification was that “the impoundments and pumping
5 system *constitute a new process system and discharge location.*” (Emphasis added). The denial
6 letter further directed Tyrone that “the permit changes requested in both letters will be
7 incorporated into the new permit modification.” The denial letter also includes this statement
8 about permit modification:

9 “Pursuant to Section 20.6.2.3108 NMAC, the modification of DP-670 will require public
10 notice. The request for discharge modification must include a filing fee of \$100.00 in
11 accordance with Section 20.6.2.3114 NMAC. A permit fee of \$7,500.00 will be assessed
12 at the time the discharge modification is issued.”

13 In this one instance, NMED applied the proper regulatory interpretation of what constitutes a
14 permit modification rather than a permit amendment. However, in the following ten years
15 NMED did not make the same interpretation under similar scenarios where permit amendment
16 requests were clearly for new construction that could only be interpreted as a “new process
17 system” and/or “new location.”

18 For ten years NMED has developed this ‘historic and current practice’ of accepting any and
19 all permit amendment requests regardless of the detail of the request, the complexity of the
20 proposed action, the obviousness of new discharge location, without showing calculation or other
21 determination related to the proposed change in quantity or quality of the specific discharge,

1 without engineering plans and specifications, and many times with only a vague reference to a
2 regulatory authority.

3 For ten years the public has been denied proper public notice and due process on not only
4 these actions discussed today, but most certainly for additional permit amendments approved for
5 ground water discharge permits issued to other regulated entities.

6 The vast majority of these permit modifications that I have reviewed today occurred when a
7 discharge permit was ripe for renewal and modification and yet the course of action by NMED
8 was to approve amendments and prolong the renewal of the permit. If NMED had acted
9 properly, those expired permits could have been reissued with modification on a regular basis
10 and, most importantly, with traditional public notice, transparency, and due process.

11 **VII. The Solution To NMED's Historical And Current Practice Of Abusing The**
12 **Discharge Permit Amendment Action: AB/GRIP's Proposed Alternative Language**
13 **For "Discharge Permit Amendment Definition."**
14
15

16 Now that I have reviewed for the Commission NMED's historical and current practice of
17 abusing the discharge permit amendment process, I will now discuss the solution to this abusive
18 practice. First of all, I would like to emphasize that AB/GRIP opposes outright the agency action
19 of "discharge permit amendments" as unlawful under the Water Quality Act. With that in mind
20 AB/GRIP has proposed, in the alternative, two Options with alternative language to be used for a
21 "discharge permit amendment" definition. These two Options are presented on pages six
22 through eight of their Corrected Statement of Position With Statement of Reasons and Proposed
23 Changes. (Exhibit B). In my pre-filed written testimony, the AB/GRIP proposed language is
24 indicated in blue underline and red strikeout (color photocopy) and in black underline and
25 strikeout (plain photocopy).

Option 1 provides a definition that mirrors the decades long tested language used by the federal Environmental Protection Agency (“EPA”) in that agency’s definition of a minor permit modification as follows:

OPTION 1

[P.] (4) “discharge permit amendment” means a minor change of a ground water discharge permit that only:

(a) Corrects typographical errors;

(b) Requires more frequent monitoring or reporting by the permittee;

(c) Changes an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

(d) Allows for a change in ownership or operational control of a facility where the secretary determines that no other change in the permit is necessary and the requirements of 20.6.2.3111 NMAC have been met;

(e) Requires electronic reporting requirements (to replace paper reporting requirements);

(f) Changes the construction schedule for a discharger which is a new source. No such change shall affect a permittee’s pre-discharge permit obligations; or

(g) Deletes a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.

~~change to the requirements of a discharge permit that does not result in:~~

~~————— (a) — a change in the location of a discharge that would affect groundwater beyond that impacted by the existing discharge location,~~

~~————— (b) — an increase in daily discharge volume of greater than ten percent of the daily discharge volume approved in the most recent~~

~~discharge permit approval, renewal or modification for an individual discharge location, and where the sum of any volume increases via amendments during a permit term is greater than ten percent of the approved, renewed or modified discharge permit volume, or greater than 50,000 gallons/day, whichever is less,~~

~~_____ (c) _____ an increase in an effluent limit set forth in the most recent discharge permit approval, renewal or modification for an individual discharge location, or~~

~~_____ (d) _____ introduction of a new water contaminant~~

The New Mexico Air Quality Control Act's implementing regulations have a similar definition for permit "administrative amendments" and "minor modifications." 20.2.70.404 NMAC creates a three-tiered system of changes to a permit: administrative amendments, minor modifications and significant modifications. Under this tiered system, many of NMED's approved discharge permit "amendments" would qualify as "significant permit modifications" and should have been subject to public notice and participation requirements.

For example, 20.2.70.404.C(1)(b) NMAC states, "Any modification that would result in any relaxation in existing monitoring, reporting or recordkeeping permit terms or conditions" is a significant permit modification subject to public notice and participation requirements. Since NMED's proposed amendments to 20.6.2 NMAC provide an extremely limited public notice only of the Secretary's final decision for a discharge permit amendment request and not a more expanded public notice of both the request and final decision, NMED's proposal will not stop the historical and current practice of abuse. Only AB/GRIP's proposed alternative language for "discharge permit amendment" and "discharge permit modification," along with their proposed notice requirements, will put an end to this abusive practice.

Option 2 proposes language developed by AB/GRIP that would also limit the universe of permit amendments that could occur with limited public notice during the five-year lifespan of a

1 ground water discharge permit. Furthermore, it addresses NMED's failure to provide any
2 rationale or scientific basis for proposing that an increase in daily discharge volume and an
3 increase in the concentration of water contaminants discharged will no longer be considered a
4 "discharge permit amendment" when greater than ten percent of the original, as opposed to one
5 percent, three percent or five percent of the original.

6 The Water Quality Act expressly states that standards and regulations adopted by the WQCC
7 be based on "credible scientific data." NMSA 1978, § 74-6-4(D). The Commission should
8 understand that merely considering the percent increase in *volume* of discharge completely
9 disregards the importance of the *concentration* of contaminants in that increase. It is the
10 concentration that determines the increased mass loading of those contaminants in the increased
11 discharge.

12 Ten percent of added pollution and/or flow (and its simultaneous increased mass loading of
13 contaminants) could be considered very significant to down gradient communities and
14 individuals that use ground water as their primary drinking water source, especially from a
15 facility that discharges in large volumes. This is particularly concerning with respect to drinking
16 water wells located down gradient from facilities that discharge contaminants that adversely
17 impact the ability to use ground water for human consumption without additional and costly
18 water treatment.

19 Option 2, as proposed by AB/GRIP, attempts to resolve these concerns by removing the
20 increased discharge language from the definition.

OPTION 2

[P-] (4) “discharge permit amendment” means a minor change to the requirements of a ground water discharge permit that does not result in:

(a) a change in the location of a discharge; ~~that would affect groundwater beyond that impacted by the existing discharge location,~~

(b) an increase in daily discharge volume; ~~greater than ten percent of the daily discharge volume approved in the most recent discharge permit approval, renewal or modification for an individual discharge location, and where the sum of any volume increases via amendments during a permit term is greater than ten percent of the approved, renewed or modified discharge permit volume, or greater than 50,000 gallons/day, whichever is less,~~

(c) an increase in an effluent limit set forth in the most recent discharge permit approval, renewal or modification for an individual discharge location; ~~or~~

(d) introduction of a new water contaminant;

(e) a change in monitoring locations, a reduction in monitoring frequency, or a removal of monitoring constituents;

(f) a reduction in reporting frequency or removal of a reporting requirement;

(g) a reduction or removal of procedures for detecting failure of the discharge system;

(h) a change to the closure plan;

(i) a reduction or removal of a Sampling and Analysis requirement; or

(j) a change to the containment system(s), pollution control unit(s), or sewerage system(s).

1 **AB/GRIP's Proposed Notice Requirements For "Discharge Permit Amendments."**

2 NMED has proposed severely limited notice of the department's decision to either approve
3 or deny a request for a discharge permit amendment to "those persons on the facility-specific list
4 maintained by the department *who have requested notice of discharge permit applications.*"

5 The public notice proposed is for a point in time *after* the NMED has made their final
6 decision. In effect that means all the 30 days allotted for NMED's review plus any additional
7 time necessary for NMED to obtain additional information from the applicant is lost to the
8 public.

9 Remember, the public in this sense is just a very small subset of the population that had the
10 forethought to be placed on the right facility-specific list under which that particular permit
11 amendment request was processed. If the permit amendment definition is not changed to
12 severely limit the types of permit changes it can be used for, then the sanctity of public
13 participation, transparency, and due process has been obliterated.

14 Conversely, if public notice is provided to a wider audience and earlier in the permit
15 amendment review process, concerned citizens would have more time to acquire a copy of the
16 permit amendment request and related documents through the IPRA process and, just as
17 importantly, for NMED to respond to that IPRA request. When the public has access to permit
18 amendment request(s) in an early and timely fashion, they are in a better position to determine
19 whether the approval of said permit amendment request(s) would be of concern that rises to the
20 level of appeal.

21 It is my opinion that this inadequate public notice, coupled with the NMED definition of
22 "discharge permit amendment," will foster continued abuse of the "discharge permit
23 amendment" process for the following reasons. First, to only provide severely limited public

notice and only after a department's decision actually defeats the purpose of having that decision subject to appeal pursuant to 20.6.2.3112 NMAC. If notice is not provided to the public in general, as well as persons who participated in prior discharge permit hearings, no one will know of the opportunity to appeal the department's decision to the WQCC. NMED's proposed notice requirement is so limited that persons who are on a facility-specific list will not even receive notice unless they *specifically request notice of discharge permit applications* for that facility.

In order to give full meaning and effect to 20.6.2.3112 NMAC, notice of the department's approval or denial of a request for a discharge permit amendment must be as broad and inclusive as possible. Therefore, AB/GRIP propose the following alternative notice requirements for "discharge permit amendments" as follows:

20.6.2.3109 SECRETARY APPROVAL, DISAPPROVAL, MODIFICATION, AMENDMENT OR TERMINATION OF DISCHARGE PERMITS, AND REQUIREMENT FOR ABATEMENT PLANS:

A. The department shall evaluate the application for a discharge permit, modification ~~or~~ renewal or amendment based on information contained in the department's administrative record. The department may request from the discharger, either before or after the issuance of any public notice, additional information necessary for the evaluation of the application. The administrative record shall consist of the application, any additional information required by the department, any information submitted by the discharger or the general public, other information considered by the department, the proposed approval or disapproval of an application for a discharge permit, modification ~~or~~ renewal, or amendment prepared pursuant to Subsection G of 20.6.2.3108 NMAC, and, if a public hearing is held, all of the documents filed with the hearing clerk, all exhibits offered into evidence at the hearing, the written transcript or tape recording of the hearing, any hearing officer report, and any post hearing submissions.

B. A discharge permit amendment shall be administratively reviewed and evaluated by the department.

(1) The department shall approve, approve with conditions, disapprove or request additional information necessary for a determination regarding a discharge permit amendment within 30 days of receipt of a request.

1 (2) The department shall provide notice of all discharge permit
2 amendment requests within 30 days of determining an application for a discharge
3 permit request is administratively complete by posting a notice on its website and by
4 mailing notice to any affected local, state, federal, tribal or pueblo governmental
5 agency, political subdivisions, ditch associations and land grants, as identified by the
6 department. The department shall also mail or email notice to those persons who
7 participated in the discharge permit hearing and to those persons on an industry,
8 facility, and permit specific list maintained by the department. The department
9 shall provide notice of all discharge permit amendment approvals or denials ~~to those~~
10 ~~persons on the facility-specific list maintained by the department who have~~
11 ~~requested notice of discharge permit applications.~~ on its website and with public
12 notice 2 (PN-2) issued by the department for discharge permit applications, and by
13 mailing notice to any affected local, state, federal, tribal or pueblo governmental
14 agency, political subdivisions, ditch associations and land grants, as identified by the
15 department. The department shall also mail or email notice to those persons who
16 participated in the discharge permit hearing and to those persons on an industry,
17 facility, and permit specific list maintained by the department.

18 (3) The permittee shall provide notice of all discharge permit amendment
19 approvals to the general public in the locale of the approved discharge permit
20 amendment in a form provided by the department by each of the methods listed
21 below:

22 a. for each 640 contiguous acres or less of a discharge site, prominently posting
23 a synopsis of the public notice at least 2 feet by 3 feet in size, in English and in
24 Spanish, at a place conspicuous to the public, approved by the department, at or
25 near the proposed facility for 30 days; one additional notice, in a form approved by
26 and may be provided by the department, shall be posted at a place located off the
27 discharge site, at a place conspicuous to the public and approved by the
28 department; the department may require a second posting location for more than
29 640 contiguous acres or when the discharge site is not located on contiguous
30 properties;

31 b. providing written notice of the approved discharge amendment by mail or
32 electronic mail, to owners of record of all properties within a 1/3 mile distance from
33 the boundary of the property where the discharge site is located; if there are no
34 properties other than properties owned by the discharger within a 1/3 mile distance
35 from the boundary of property where the discharge site is located, the applicant
36 shall provide notice to owners of record of the next nearest adjacent properties not
37 owned by the permittee;

1 c. providing notice by certified mail, return receipt requested, to the owner of
2 the discharge site if the permittee is not the owner; and

3 d. publishing a synopsis of the notice in English and in Spanish, in a display ad
4 at least three inches by four inches not in the classified or legal advertisements
5 section, in a newspaper of general circulation in the location of the proposed
6 discharge.

7 (4) The notice provided under Subsection B(3) of 20.6.2.3109 NMAC shall
8 include:

9 a. the name and address of the permittee;

10 b. a brief description of the amendment approved, including the following:

11 i. the location of any amended discharge, including a street address, if available, and
12 sufficient information to locate the facility with respect to surrounding landmarks;

13 ii. a brief description of the activities that produce the amended discharge that has
14 been approved by the department;

15 iii. a brief description of the expected quality and volume of the amended discharge
16 approved by the department;

17 iv. the depth to and total dissolved solids concentration of the ground water most likely
18 to be affected by the amended discharge;

19 v. the address and phone number within the department by which interested persons
20 may obtain information and be placed on a facility-specific mailing list for future
21 notices; and

22 vi. a statement that the department's approval of the discharge permit amendment is
23 subject to appeal to the New Mexico Water Quality Control Commission pursuant
24 to 20.6.2.3112.A NMAC.
25

26 **NMED's Proposal to Amend Definition of "Discharge Permit Modification."**
27

28 NMED proposes to amend the definition for "discharge permit modification" to incorporate
29 NMED's proposed new term "discharge permit amendment." AB/GRIP oppose in part and
30 support in part NMED's proposed amendments to 20.6.2.7.P NMAC for the following reasons.
31 AB/GRIP support NMED's proposed amendment to remove "a significant increase in" from a

1 change in the quantity of a discharge and NMED's proposed amendment to remove "significant"
2 from a change in the quality of the discharge.

3 AB/GRIP oppose NMED's proposed amendment to include "that does not qualify as a
4 discharge permit amendment." The current definition of "discharge permit modification" does
5 not cover material changes made to other requirements of a discharge permit that do not impact
6 discharge location, quantity and quality yet are still of significant concern to communities
7 adjacent to and downstream from permitted discharges .

8 For example, changes to permit requirements such as monitoring, reporting, sampling and
9 analysis, closure plan, containment system(s), pollution control unit(s) and sewerage system(s)
10 requirements are not included in the current regulatory definition. Hence, if a permittee or the
11 department proposes to change any of these equally important permit requirements, the change
12 does not qualify as a modification under the current regulatory definition, allowing NMED and
13 the permittee to circumvent the WQA's public notice and participation requirements.

14 AB/GRIP maintain that changes to a permit's monitoring, reporting, sampling and analysis,
15 closure plan, containment system(s), pollution control unit(s), and sewerage system(s)
16 requirements are properly administered as "discharge permit modifications," which require
17 public notice, public comment, and an opportunity for a public hearing. Section 20.6.2.3108
18 NMAC. Therefore, AB/GRIP propose the following changes to the current definition for
19 "discharge permit modification" as follows:

20 (5) "discharge permit modification" means a change to the requirements of a
21 discharge permit that result from a change in the location of the discharge; ~~a [significant~~
22 ~~increase in]~~ the quantity of the discharge, ~~or;~~ ~~a [significant]~~ change in the quality of the
23 discharge; ~~that does not qualify as a discharge permit amendment;~~ a change in
24 monitoring locations or a reduction in monitoring frequency or constituents; a
25 reduction in reporting frequency or removal of a reporting requirement; a
26 reduction or removal of procedures for detecting failure of the discharge system; a

1 change to the containment system(s), pollution control unit(s), or sewerage
2 system(s); a change to the closure plan; a reduction or removal of a sampling and
3 analysis requirement, or as required by the secretary;

4
5 **VIII. Conclusion.**

6 In closing I would like to review some basic concepts of what a permit is and why the
7 manner in which it is deliberated must be a transparent process with ample opportunity for public
8 participation and due process. In 20.6.2.7 NMAC, the definition of a discharge permit is: “a
9 discharge plan approved by the department.” What constitutes a discharge plan is laid out in the
10 rest of the regulation and in the applicable statutory authority.

11 When the discharge plan is approved and a discharge permit is issued, the public expects the
12 discharge plan and the discharge permit to remain unchanged during the term limit of the permit,
13 unless changed by a formal and transparent process. In this rule-making, we are not just in
14 disagreement about what constitutes the difference between a major or minor modification of a
15 permit and where the concept of permit amendment should rightfully play a part, but also the
16 preservation of public trust and due process.

17 My testimony has shown, without a doubt, that NMED has allowed discharge plans and their
18 permits to be changed, many times quite dramatically, with zero transparency to the public and
19 the affected communities. To add insult to injury, too many of those changes occurred while the
20 discharge permit was expired or languished in perpetual administrative extension of their
21 expiration date. This practice is not normal and must end. This practice will not end under
22 NMED’s proposed amendments to 20.6.2 NMAC.

1 I have spent the last 20 years of my career all over the country reviewing environmental
2 permit applications and draft permits looking for administrative and technical deficiencies so my
3 clients can present that information during public comment period. If their concerns are not met
4 during the public comment period, then my clients may determine that the best course of action
5 is to utilize their rights of due process and appeal the issuance of the permit. The public needs to
6 be able to trust that the regulatory agency in charge of protecting the environment and public
7 health will unfailingly adhere to these statutory and regulatory processes.

8 I cannot emphasize enough that I have never observed the type of behavior as outlined in my
9 testimony today in the 22 states that I have worked in and in the hundreds of permits I have
10 reviewed. It was quite shocking to discover that NMED was regularly stepping outside of the
11 traditional permitting and public participation process with such disregard for the sanctity of
12 public trust.

13 The two main considerations that I believe are paramount to good rule-making is to
14 acknowledge and preserve the sanctity of public participation in agency actions and to provide a
15 clear path to due process. I believe I have provided ample testimony to expose not only the
16 abuse as illustrated in NMED's actual "historic and current practices" in the permit amendment
17 process, but the vast universe of all the "requirements of the permit" that are vulnerable to a
18 process that focuses only on location, quantity, and quality of the discharge.

19 Thank you for your consideration. This concludes my written direct testimony.

KATHY J. MARTIN, PE

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CURRENT OCCUPATION

ENVIRONMENTAL CONSULTANT, PRESIDENT, MARTIN ENVIRONMENTAL SERVICES, LLC NORMAN, OK
Professional Engineer in Civil Engineering - providing expertise in environmental permits for air quality, non-hazardous industrial wastewater, and closure of surface impoundments. Perform engineering review and critique of permit applications submitted by livestock facilities to state and federal regulatory agency with respect to wastewater treatment technology and compliance with environmental regulations.

EDUCATION

UNIVERSITY OF OKLAHOMA

M.S. Civil Engineering, 1989

Thesis: The Removal of Polychlorinated Biphenyls from Topsoil Using Nonionic Surfactants

UNIVERSITY OF OKLAHOMA

B.S. Petroleum Engineering, 1987

National Dean's List, 1986-87

EXPERIENCE

HYDRAULIC FRACTURING AND INJECTION WELL ISSUES

As Martin Environmental Services, 2009 to present

Provide guest lecturer and other speaking arrangements regarding potential environmental impacts of hydraulic fracturing of shale gas and shale oil formations. Perform technical and regulatory review of salt water injection well permit applications to determine if regulatory and environmental concerns are adequately addressed.

MOBILE MEAT HARVESTING UNIT

Team member, 2010 to present

Provide technical assistance in developing water and wastewater treatment strategies including potable water treatment, slaughter waste treatment and disposal, HACCP, and other USDA requirements for small slaughterhouses.

ADJACENT LANDOWNERS TO LIVESTOCK FACILITIES

Subcontracted as Martin Environmental Services, June 1997 to present

Perform technical and regulatory review of approximately 150 CAFO permit applications in 21 states nationally to determine if the application is sufficient for a permit writer to draft a permit. The purpose was to determine if there were technical and/or regulatory deficiencies in the application and prepare a written report for use in administrative proceedings by concerned citizens and adjacent landowners.

SEWARD COUNTY COMMISSIONERS, SEWARD COUNTY, KANSAS

Subcontracted as Martin Environmental Services, June - October 1998

Drafted environmental regulations for confined animal feeding operations (CAFOs) with respect to the design, construction, operation, maintenance, and closure of surface impoundments and the disposal of CAFO waste by land application. The resulting work product was a set of regulations that is a complete permitting program including public notice, hearings, permit application processes and fees, as well as provisions for compliance and enforcement.

DEPARTMENT OF ENVIRONMENTAL QUALITY

Environmental Engineer II, July 1, 1993 to November 1, 1996

Special training in areas of Air Quality and Hazardous Waste permits and regulatory requirements. Provided technical and regulatory assistance to business and industry with respect to environmental permits issued by the ODEQ in water quality, air quality, and solid waste programs.

OKLAHOMA WATER RESOURCES BOARD

Environmental Engineer I, April 1990 to June 30, 1993

Special training in areas of industrial wastewater disposal permits and inspections. Drafted state regulations for surface impoundments and land application of non-hazardous industrial wastewater. Issued state permits for non-discharge facilities. Project officer of Tar Creek Superfund Site.

TECHNICAL EXPERTISE

- 17 years continuing education regarding CAFO waste management systems
- Extensive research and knowledge of lagoon liner systems and waste/liner compatibility
- 13 years continuing education regarding pathogen transport and fate from CAFOs
- 15 years continuing education regarding air pollution and odors from CAFOs
- Other topics of continuing education: GPS, perimeter tile design, concrete, flow meters, backflow prevention, fate and transport, and soil science
- Drafted Oklahoma state regulations for permitting of surface impoundments and disposal by land application used by facilities with non-hazardous industrial wastewater
- Drafted county regulations for CAFO impoundments and land application of manure
- Familiarity with CAFO regulations in AR, CA, CO, GA, IA, ID, IL, IN, KS, KY, MO, MS, ND, NE, NM, OK, PA, SD, TX, UT, and WY
- Professional Engineer in Oklahoma (No. 18254) February 1997 to present;
Professional Engineer in New Mexico 2012 (No. 21522)
- Coordinated Superfund activities between USGS, Oklahoma State and EPA
- Interacted with State Legislators (OK and KS) on technical issues related to CAFOs
- Provide expert testimony regarding CAFO waste management systems in Arkansas, Indiana, Kansas, Kentucky, Missouri, Nebraska, New Mexico, Oklahoma, and Utah
- Provide technical and regulatory reviews of CAFO permit applications in AR, CA, CO, GA, IA, ID, IL, IN, KS, KY, MO, MS, ND, NE, NM, OK, PA, SD, TX, UT, WI, and WY
- Graduate Degree coursework included: Groundwater Protection, Groundwater Seepage, Groundwater Modeling, Groundwater Pollution Control, Air Pollution Controls, Air Pollution Engineering, Environmental Impact Assessment, Risk Assessment, Industrial Hygiene, Reservoir Dam Engineering, Open Channel Flow, Chemical and Biological Aspects of Environmental Engineering, Advanced Wastewater Treatment, Soil Classification, Soil Science, Hazardous Waste Control, Solid Waste Engineering/Landfill Design, Land Use Management, Surfactants and Colloidal Science, Corrosion Engineering, Field Applications, and Nonparametric Statistics.
- Three years Chinese language
- Ten years leadership positions in local, state, and national organizations
- Developed state-wide foundry and metal casting facility environmental program in Oklahoma -- and trained state agencies in Louisiana and Arkansas to do the same.
- Active contributor to proposed regulatory language with respect to CAFOs at local, state, and federal levels, especially OK, KS, NE, CO, NM, IN, and IL.
- Provided lectures on CAFO environmental issues to groups in Oklahoma, Kansas, Nebraska, Indiana, Pennsylvania and Utah to groups as large as 600 people at a time.

ORGANIZATIONS AND BOARD POSITIONS

- STRONGER NATIONAL BOARD MEMBER – ENVIRONMENTAL STAKEHOLDER (2006-2010)
- DEQ Hazardous Waste Management Council - governor appointed member (past)
- STRONGER Audit Team - Oil and Gas Environmental Regulations in Oklahoma (2005), Kentucky (2006) and Tennessee (2007)
- Oklahoma Corporation Commission - Citizen Advisory Board member (past)
- Oklahoma Society of Environmental Professionals – Past President, Past Newsletter Editor, Past Secretary, Past Engineering Board Member
- American Society of Agricultural and Biological Engineers (ASABE) – member
- Society of Petroleum Engineers - Past Executive Committee two years, member 10 years
- National Association of Professional/Graduate Students - Past Board member and National Conference Chairperson
- Graduate Student Senate, University of Oklahoma - Past Chair two years, Past Vice Chair, Past Senator for Civil Engineering Department
- Oklahoma Chapter of Sierra Club - past member, 1 year
- Engineering Club of Oklahoma City - past member, 6 years
- OU Petroleum Engineers Club - past Vice President, member 4 years
- OU Society of Women Engineers - past President, member 7 years
- OU Engineer's Club - Loyal Knight of St. Pat, member 7 years

Expert Witness Testimony and Deposition History

Kathy J. Martin, PE (OK#18254; NM#21522)

List updated September 2017

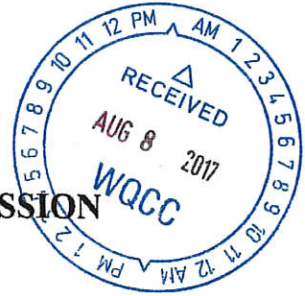
| Location | File Name | Date | Other |
|----------------------------|--|---------------|--|
| Okla Water Resources Board | Seaboard - Nichols Radcliffe Nursery Beaver County, OK | Oct 1997 | OWRB Water permit administrative hearing |
| Okla Dept of Ag | BAR-D swine finisher Caddo County, OK | Dec 1997 | CAFO permit administrative hearing |
| Okla Dept of Ag | Seaboard Fisher facility Texas County, OK | Dec 1997 | CAFO permit administrative hearing |
| Okla Water Resources Board | PIC Gilt Facility Woodward County, OK | Aug 1997 | OWRB Water permit administrative hearing |
| Utah DEQ | Circle Four Farms Administrative Hearing | mid 1998? | CAFO permit Board hearing |
| Okla Dept of Ag | Hanor/Kronseder Huffman Fac. Woodward County, OK | Jan 1998 | CAFO permit administrative hearing |
| Okla Water Resources Board | Murphy Family Farms Luthi Facility Ellis County, OK | Jan 1998 | OWRB water permit administrative hearing |
| Okla Dept of Ag | Tyson Chapman Facility Seminole, OK | Dec 1999 | OWRB water permit administrative hearing |
| Okla Water Resources Board | Land of Lakes Taylor Facility Beaver County, OK | Mar 2000 | OWRB water permit administrative hearing |
| Platte County Nebraska | TeVelde Dairy District Court | Nov-Dec 2000 | County Permit Appeal to District Court |
| Okla Dept of Ag | Seaboard - Kendra East Beaver County, OK | May 2001 | CAFO permit administrative hearing |
| Iowa French Creek | Wayne Weber hog farm Sierra Club, et al v Weber | 2001 | Deposition |
| Okla Dept of Ag | Land of Lakes Reddick Beaver County, OK | Mar 2002 | CAFO permit administrative hearing |
| Okla Dept of Ag | Seaboard Schnackenberg Texas County, OK | Jan-Feb 2003 | CAFO permit administrative hearing |
| Okla Dept of Ag | Land of Lakes, T Venable Beaver County, OK | Jan-June 2005 | CAFO permit administrative hearing |
| Okla Dept of Ag | Land of Lakes, J. Venable Beaver County, OK | Jan-June 2005 | CAFO permit administrative hearing |

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|---|---|--------------|---|
| Okla Dept of Ag | Land of Lakes - Ferguson Nursery #1 & #2 Beaver County TX | Jan-Jun 2005 | CAFO permit administrative hearing |
| Okla Dept of Ag | C&M Cattle Feedlot Cimarron County, OK | April 2006 | CAFO permit Administrative hearing |
| Kendall County Illinois | Toftoy v Rosenwinkel | Oct 2006 | Deposition |
| Kentucky Cabinet of Public Health and Environment | 9 contract hog operations (Tosh) Fulton, Hickman and Carlisle counties combined into one hearing (wean-to-finish) | Jan 2007 | CAFO permit (KDNOP) Administrative hearing Deposition |
| Kentucky Circuit Court | 9 contract hog operations (Tosh) Fulton, Hickman and Carlisle counties combined into one hearing (wean-to-finish) | Oct 2007 | Stay Hearing on agency permit action – air toxics |
| Indiana Office of Environmental Adjudication | Union Go Dairy (Vreba-Hoff) Appeal of Permit Issuance Appeal Hearing | Jan-Feb 2008 | CAFO Permit (NPDES) Administrative Hearing |
| Missouri Administration Hearing Commission | Ozbun Poultry Facility Appeal of Permit Issuance Appeal Hearing | Jan 2009 | CAFO Permit (state) Administrative Hearing |
| New Mexico Environmental Department | ParaSol Dairy Appeal of Ground Water Discharge Permit | Feb 2009 | Discharge permit (state) Administrative Hearing |
| Indiana Office of Environmental Adjudication | Steuber Hog Farm Appeal of Permit Issuance Appeal Hearing | Feb 2009 | CAFO Permit (NPDES) Administrative Hearing |
| Indiana Office of Environmental Adjudication | Duckwall Hog Farm Appeal of Permit Issuance Appeal Hearing | June 2009 | CAFO Permit (NPDES) Administrative Hearing |
| Indiana Office of Environmental Adjudication | Optima Dairy (Vreba-Hoff) Appeal of Permit Issuance Appeal Hearing | July 2009 | CAFO Permit (NPDES) Administrative Hearing Deposition |
| New Mexico Water Quality Control Commission | Dairy Rule-Making Hearing Technical testimony | June 2010 | Rule-making |
| New Mexico Oil Conservation Commission | Pit Rule-Making Hearing Technical rebuttal testimony | Aug 2012 | Rule-making |
| Indiana Office of Environmental Adjudication | Union Go Dairy (Vreba-Hoff) Appeal of Permit Modification Appeal Hearing | Jan 2013 | Deposition |
| State of Wisconsin Div of Hearings and Appeals | Richfield Dairy Appeal of Permit Issuance Adams County, WI | June 2013 | Plans and Specifications Administrative Hearing |
| Scott County, Illinois | Marsh, et al v Sandstone North, LLC, et al | Aug 2013 | Deposition |
| Lea County, New | Pearson, et al v Rock View Dairy, | Oct 2013 | Deposition |

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|---|---|----------------------|--|
| Mexico | High Lonesome Dairy, Rick Schaap, and Eddie Schaap | | |
| Superior Court of California, County of Santa Clara | Acoba, et al v Olivera Egg | Nov 2013 | Deposition |
| State of Wisconsin Div of Hearings and Appeals | Kinnard Dairy Appeal of Modified Permit Kewaunee County, WI | Feb 2014 | Plans and Specifications Administrative Hearing |
| State of Indiana | Mark Holder v Trotter Farms, Inc, Ronald E. Trotter, Rosemary Trotter, and Barry Trotter | Feb 2014 | Deposition (Indianapolis, IN) |
| State of Delaware | Brownfield Remediation Plan - Pinnacle Foods/Vlassic and proposed site of Allen-Harim poultry processing facility Technical Testimony | May 2014 | Brownfield Remediation Plan Appeal Hearing Dover, Delaware |
| State of Indiana | Mark Holder v Trotter Farms, Inc, Ronald E. Trotter, Rosemary Trotter, and Barry Trotter | May 2014 | Deposition (continuation in Kansas City, MO) |
| Superior Court of California, County of Santa Clara | Acoba, et al v Olivera Egg | June 2014 | Testimony at Trial |
| New Mexico Water Quality Control Commission | Dairy Rule-Making Hearing Pre-filed Written Testimony and Rebuttal | Nov 2014 | Rule-making hearing was postponed until April 2015 |
| Missouri Clean Water Commission | Callaway Farrowing, LLC Appeal of Permit Issuance | Feb 2015 | State No-Discharge permit appeal hearing before an administrative law judge. |
| Pennsylvania Department of Environmental Quality | Stedge v Chesapeake | March 2015 | Appeal Hearing of Frack Flowback Tank Storage Permit |
| Nevada State Environmental Commission | Smith Valley Dairy Appeal of Permit Issuance | July 2015 | Administrative Hearing |
| State of Iowa | Pauls v Warren Family Pork Dovico v Valley View Farms Winburn v Hoksbergen | Aug and Sept 2015 | Deposition |
| State of New Mexico | Gonzalez, et al v Del Oro Dairy | Aug and Sept 2015 | Deposition |
| State of Missouri Administrative Hearing Commission | Trenton Farms RE, LLC Appeal of Permit Issuance | Oct 2015 | Administrative Hearing |
| State of Indiana | Pegg, et al v Union Go Dairy | Oct 2015 | Deposition |
| State of Indiana Office of Enviro Adjudication | Union Go Dairy Appeal of Permit Modification and Renewal | Jan 2016 | Administrative Hearing |

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|---|---|-----------|------------------------|
| Iowa District Court Wapello County | Pauls, et al v Warren and Cargill Pork | Feb 2016 | Testimony at Trial |
| US District Court Northern District Mississippi | King, et al v Peco Foods Inc | May 2016 | Deposition |
| Scott County, Illinois | Marsh, et al v Sandstone North, LLC, et al | May 2016 | Testimony at Trial |
| Commissioner of Public Lands New Mexico | Brininstool XL Ranch v Devon Energy | Aug 2016 | Administrative Hearing |
| US District Court Aberdeen Div Oxford, MS | King v Peco Foods, Inc | Mar 2017 | Testimony at Trial |
| State of Minnesota | Winter, et al v Gourley | July 2017 | Deposition |

**STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION**



**IN THE MATTER OF PROPOSED)
AMENDMENTS TO GROUND)
AND SURFACE WATER)
PROTECTION REGULATIONS,)
20.6.2 NMAC)**

No. WQCC 17-03(R)

NOTICE OF ERRATA AND CORRECTED PROPOSED CHANGES

Amigos Bravos and Gila Resources Information Project ("GRIP") hereby submit this Notice of Errata to our Proposed Changes to the New Mexico Environment Department's ("NMED") Proposed Amendments to 20.6.2 NMAC and a corrected Statement of Position on NMED's Petition to Amend 20.6.2 NMAC With Statement of Reasons and Proposed Changes, attached as Exhibit A.

On pages 42-43 of our Statement of Position on NMED's Petition to Amend 20.6.2 NMAC With Statement of Reasons and Proposed Changes, we erroneously referenced the NMED secretary. We have replaced "secretary" with "commission". We also deleted our proposed subsection H and incorporated that language into subsection B on page 42.

Respectfully submitted,

By:

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Douglas Meiklejohn

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Jonathan Block

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Santa Fe, NM 87505

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Attorneys for Amigos Bravos & GRIP

EXHIBIT

tabbles

B

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing Notice of Errata And Corrected Proposed Changes was served on August 8, 2017 via electronic mail to the following:

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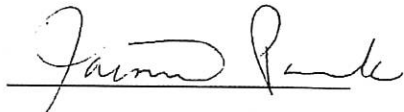
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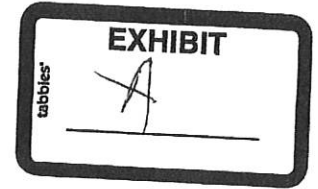
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Jaimie Park
NMELC Staff Attorney



**STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION**

**IN THE MATTER OF PROPOSED)
AMENDMENTS TO GROUND)
AND SURFACE WATER)
PROTECTION REGULATIONS,)
20.6.2 NMAC)**

No. WQCC 17-03(R)

**STATEMENT OF POSITION ON THE NEW MEXICO ENVIRONMENT
DEPARTMENT'S PETITION TO AMEND THE GROUND AND SURFACE
WATER PROTECTION REGULATIONS (20.6.2 NMAC) WITH
STATEMENT OF REASONS AND CORRECTED PROPOSED CHANGES**

Pursuant to 20.1.6.1000.B NMAC and the Revised Procedural Order issued on June 2, 2017, Amigos Bravos and the Gila Resources Information Project ("GRIP"), by and through undersigned counsel, hereby submit the following statement of position on the New Mexico Environment Department's Petition to Amend the Ground and Surface Water Protection Regulations (20.6.2 NMAC), along with corrected proposed amendments and a statement of reasons for the New Mexico Water Quality Control Commission's ("WQCC") consideration.

Amigos Bravos is a statewide water conservation organization guided by social justice principles. Amigos Bravos's mission is to protect and restore the waters of New Mexico. Amigos Bravos works locally, statewide, and nationally to ensure that the waters of New Mexico are protected by the best policy and regulations possible. New Mexico's ground and surface water protection regulations found at 20.6.2 NMAC are a critical component of Amigos Bravos's work to protect clean water and the communities that depend upon clean water in New Mexico.

The Gila Resources Information Project (GRIP) recognizes that human and environmental systems are inseparable and interdependent. GRIP works to protect and nurture human communities by safeguarding the natural resources that sustain us all and to safeguard natural resources by facilitating informed public participation in resource use decisions. Sound state water protection regulations are essential for realizing this work.

For clarity, language proposed to be deleted by NMED is indicated by ~~striketrough~~ (black in color copies). Language proposed to be deleted by Amigos Bravos and GRIP is indicated by ~~bold striketrough~~ (red in color copies). Proposed new language by Amigos Bravos and GRIP is indicated by bold underlining (blue in color copies). Amigos Bravos and GRIP reserve the right to amend its statement of position and to propose additional changes that are a logical outgrowth of NMED's Petition, along with additional arguments in support of positions taken on NMED's Petition at the November 14, 2017 public hearing.

I. 20.6.2.7 NMAC – NMED's Proposal to Add the Term "Discharge Permit Amendment"

Statement of Position:

NMED proposes to add a new term to 20.6.2.7 NMAC, that of "discharge permit amendment", which under NMED's proposed language appears to provide an unlimited ability to change previously public noticed and approved permit language. In doing so, NMED's proposed language would allow industry and NMED to circumvent public notice and participation requirements under the Water Quality Act ("WQA") and to make unlimited changes to major permit requirements. Amigos Bravos and GRIP oppose the addition of this term in its entirety for the following reasons.

Statement of Reasons for Changes to NMED's Proposed Amendment:

1. NMED's proposed term "discharge permit amendment" creates a new category of NMED actions called "amendments" not authorized under the Water Quality Act ("WQA"). The proposed term and definition both clearly violate the WQA because they exceed the authority of both the WQCC and NMED under the WQA. The WQA expressly authorizes NMED to perform the following actions: deny a permit, terminate a permit, modify a permit, or grant a permit subject to a condition. *See* NMSA 1978, § 74-6-5(M), (N). The WQA only authorizes the WQCC to promulgate procedures, by regulation, for the "issuance or modification of a permit" and for the "issuance of renewals of permits." NMSA 1978, § 74-6-5(F). The WQA does not permit the WQCC to adopt regulations providing procedures for NMED to "amend" a discharge permit. *Id.* Therefore, the proposed addition of "discharge permit amendment" to the current ground water and surface water protection regulations exceeds NMED's authority under the Act. If the WQCC were to adopt this proposed revision, it too would exceed its authority under the Act, violating NMSA 1978, § 74-6-4(C). NMED, in its Statement of Reasons provided with its May 1, 2017 Petition conceded that it has been engaging in an unlawful practice by approving "amendments" to discharge permits in effect. *See* NMED's "Statement of Reasons For Proposed Amendments to 20.6.2 NMAC", reason #3 (May 1, 2017). The WQCC must refrain from legitimizing NMED's unlawful practice with codification.
2. The inclusion of this new term would have the effect of eliminating the need to provide public notice, opportunity for public comment, and an opportunity for a public hearing for a permitting action that should be administered as a "discharge permit modification."

It is not clear whether NMED's proposed definition for "discharge permit amendment" would administer all changes to a permit's monitoring, reporting, sampling and analysis, closure plan, containment system(s), pollution control unit(s), and sewerage system(s) requirements as amendments, as long as such changes would not result in a change in location of the discharge, increase in the discharge volume, or introduction of a new contaminant. Under NMED's proposed term and definition, it is conceivable that the public would never receive notice of *any* changes made to monitoring, reporting, sampling and analysis, closure plan, contain system(s), pollution control unit(s), and sewerage system(s) requirements under NMED's proposed amendment. This is because NMED's proposed "discharge permit amendment" would not require public notice, public comment, and an opportunity for a public hearing. Amigos Bravos and GRIP maintain that *any* changes to a permit's monitoring, reporting, sampling and analysis, closure plan, containment system(s), pollution control unit(s), and sewerage system(s) requirements are properly administered as "discharge permit modifications", which require public notice, public comment, and an opportunity for a public hearing. Section 20.6.2.3108 NMAC.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendment:

Amigos Bravos and GRIP therefore propose to delete NMED's proposed addition of 20.6.2.7 NMAC in its entirety as follows:

~~[P.] (4) "discharge permit amendment" means a minor change to the requirements of a discharge permit that does not result in:~~

~~(a) a change in the location of a discharge that would affect groundwater beyond that impacted by the existing discharge location;~~

~~(b) — an increase in daily discharge volume of greater than ten percent of the daily discharge volume approved in the most recent discharge permit approval, renewal or modification for an individual discharge location, and where the sum of any volume increases via amendments during a permit term is greater than ten percent of the approved, renewed or modified discharge permit volume, or greater than 50,000 gallons/day, whichever is less,~~

~~(c) — an increase in an effluent limit set forth in the most recent discharge permit approval, renewal or modification for an individual discharge location, or~~

~~(d) — introduction of a new water contaminant~~

It is clear that neither NMED nor the WQCC has the authority to promulgate regulations for amendments to a discharge permit under the Water Quality Act. However, if the WQCC determines that the addition of this new term does not exceed either NMED's or the WQCC's authority under the WQA, then Amigos Bravos and GRIP propose, in the alternative, two options for alternative language for the term "discharge permit amendment" for the following reasons.

Statement of Reasons for "In the Alternative" Changes to NMED's Proposed Amendment:

1. Option 1 provides a definition that mirrors the decades long tested language used by the federal Environmental Protection Agency ("EPA") in that agency's definition of a minor modification of a permit. Under Option 1, "discharge permit amendments" are primarily administrative changes to an existing permit. Minor substantive changes to an existing permit are also permitted but restricted under Option 1. This alternative language derives from 40 C.F.R. 122.63, the National Pollutant Discharge Elimination System ("NPDES") permit regulations promulgated under the federal Clean Water Act.

2. NMED has failed to provide any rationale or scientific basis for proposing that an increase in daily discharge volume and an increase in the concentration of water contaminants discharged will no longer be considered a “discharge permit amendment” when greater than ten percent of the original, as opposed to one percent, three percent or five percent of the original. Ten percent of added pollution and/or flow could be very significant to down gradient communities and individuals that use ground water as their primary drinking water source, especially from a facility that discharges in large volumes. This is particularly concerning with respect to drinking water wells located down gradient from facilities that discharge contaminants that adversely impact the ability to use ground water for human consumption without additional and costly water treatment. The Water Quality Act expressly states that standards and regulations adopted by the WQCC be based on “credible scientific data.” NMSA 1978, § 74-6-4(D). Option 2 as proposed by Amigos Bravos and GRIP attempts to resolve these concerns by removing the increased discharge language from the definition.

Amigos Bravos’s & GRIP’s “In the Alternative” Changes to NMED’s Proposed Amendment:

Option 1 provides a definition that mirrors the decades long tested language used by the federal Environmental Protection Agency (“EPA”) in that agency’s definition of a minor modification of a permit as follows:

OPTION 1

[P:] (4) “discharge permit amendment” means a minor **change of a ground water discharge permit that only:**

(a) Corrects typographical errors;

(b) Requires more frequent monitoring or reporting by the permittee;

(c) Changes an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

(d) Allows for a change in ownership or operational control of a facility where the secretary determines that no other change in the permit is necessary and the requirements of 20.6.2.3111 NMAC have been met;

(e) Requires electronic reporting requirements (to replace paper reporting requirements);

(f) Changes the construction schedule for a discharger which is a new source. No such change shall affect a permittee's pre-discharge permit obligations; or

(g) Deletes a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.

~~change to the requirements of a discharge permit that does not result in:~~

~~_____ (a) a change in the location of a discharge that would affect groundwater beyond that impacted by the existing discharge location;~~

~~_____ (b) an increase in daily discharge volume of greater than ten percent of the daily discharge volume approved in the most recent discharge permit approval, renewal or modification for an individual discharge location, and where the sum of any volume increases via amendments during a permit term is greater than ten percent of the approved, renewed or modified discharge permit volume, or greater than 50,000 gallons/day, whichever is less;~~

~~_____ (c) an increase in an effluent limit set forth in the most recent discharge permit approval, renewal or modification for an individual discharge location, or~~

~~_____ (d) introduction of a new water contaminant~~

Option 2 proposes language developed by Amigos Bravos and GRIP that would limit the universe of permit amendments that could occur with limited public notice during the five-year lifespan of a ground water discharge permit as follows:

OPTION 2

[P.] (4) “discharge permit amendment” means a minor change to the requirements of a ground water discharge permit that does not result in:

- (a) a change in the location of a discharge; ~~that would affect groundwater beyond that impacted by the existing discharge location;~~
- (b) an increase in daily discharge volume; ~~greater than ten percent of the daily discharge volume approved in the most recent discharge permit approval, renewal or modification for an individual discharge location, and where the sum of any volume increases via amendments during a permit term is greater than ten percent of the approved, renewed or modified discharge permit volume, or greater than 50,000 gallons/day, whichever is less,~~
- (c) an increase in an effluent limit set forth in the most recent discharge permit approval, renewal or modification for an individual discharge location; ~~or~~
- (d) introduction of a new water contaminant;
- (e) a change in monitoring locations, a reduction in monitoring frequency, or a removal of monitoring constituents;
- (f) a reduction in reporting frequency or removal of a reporting requirement;
- (g) a reduction or removal of procedures for detecting failure of the discharge system;
- (h) a change to the closure plan;
- (i) a reduction or removal of a Sampling and Analysis requirement; or
- (j) a change to the containment system(s), pollution control unit(s), or sewerage system(s).

II. 20.6.2.3106 NMAC – NMED’s Proposal to Add “Discharge Permit Amendment” to Application for Discharge Permits, Renewals and Modifications Provisions

Statement of Position:

Amigos Bravos and GRIP oppose NMED’s proposed amendment to add “discharge permit amendment” to 20.6.2.3106 NMAC in its entirety for the following reasons.

Statement of Reasons for Changes to NMED’s Proposed Amendments:

1. NMED’s proposed term “discharge permit amendment” creates a new category of NMED actions called “amendments” not authorized under the Water Quality Act (“WQA”). The proposed term and definition both clearly violate the WQA because they exceed the authority of both the WQCC and NMED under the WQA. The WQA expressly authorizes NMED to perform the following actions: deny a permit, terminate a permit, modify a permit, or grant a permit subject to a condition. *See* NMSA 1978, § 74-6-5(M), (N). The WQA only authorizes the WQCC to promulgate procedures, by regulation, for the “issuance or modification of a permit” and for the “issuance of renewals of permits.” NMSA 1978, § 74-6-5(F). The WQA does not permit the WQCC to adopt regulations providing procedures for NMED to “amend” a discharge permit. *Id.* Therefore, the proposed addition of “discharge permit amendment” to the current ground water and surface water protection regulations exceeds NMED’s authority under the Act. If the WQCC were to adopt this proposed revision, it too would exceed its authority under the Act, violating NMSA 1978, § 74-6-4(C). NMED, in its Statement of Reasons provided with its May 1, 2017 Petition conceded that it has been engaging in an unlawful practice by approving “amendments” to discharge permits in effect. *See* NMED’s “Statement of Reasons For Proposed Amendments to 20.6.2 NMAC”, reason #3 (May 1,

2017). The WQCC must refrain from legitimizing NMED's unlawful practice with codification.

2. The inclusion of this new term would have the effect of eliminating the need to provide public notice, opportunity for public comment, and an opportunity for a public hearing for a permitting action that should be administered as a "discharge permit modification." It is not clear whether NMED's proposed definition for "discharge permit amendment" would administer *any* changes to a permit's monitoring, reporting, sampling and analysis, closure plan, containment system(s), pollution control unit(s), and sewerage system(s) requirements as amendments, as long as such changes would not result in a change in location of the discharge, increase in the discharge volume, or introduction of a new contaminant. Under NMED's proposed term and definition, it is conceivable that the public would never receive notice of *any* changes made to monitoring, reporting, sampling and analysis, closure plan, contain system(s), pollution control unit(s), and sewerage system(s) requirements under NMED's proposed amendment. This is because NMED's proposed "discharge permit amendment" would not require public notice, public comment, and an opportunity for a public hearing. Amigos Bravos and GRIP maintain that *any* changes to a permit's monitoring, reporting, sampling and analysis, closure plan, containment system(s), pollution control unit(s), and sewerage system(s) requirements are properly administered as "discharge permit modifications", which require public notice, public comment, and an opportunity for a public hearing. Section 20.6.2.3108 NMAC.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendment:

Amigos Bravos & GRIP therefore propose to delete NMED's proposed amendments in their entirety as follows:

20.6.2.3106 APPLICATION FOR DISCHARGE PERMITS ~~{AND}~~ RENEWALS, AND MODIFICATIONS, ~~AND AMENDMENTS~~:

And:

~~H. — A permittee may submit a request for a discharge permit amendment to the department at any time during the term of an approved discharge permit.~~

In the alternative, if the WQCC determines that the term "discharge permit amendment" does not exceed the authority of either the NMED or the WQCC under the WQA, then Amigos Bravos and GRIP have proposed "in the alternative" changes to NMED's proposed amendment for the following reasons.

Statement of Reasons for "In the Alternative" Changes to NMED's Proposed Amendment:

1. NMED does not specify how many amendments may be granted during a permit term.

Though NMED appears to provide a cap for increases in discharge volume during the term of a discharge permit via amendment in the proposed definition for "discharge permit amendment", there is no cap for amendments made to other equally important permit requirements such as monitoring, reporting, sampling and analysis, and closure plan requirements. Alternative language proposed by Amigos Bravos and GRIP would resolve this concern by limiting the number of amendments that may be requested by the permittee and approved by NMED.

Amigos Bravos's & GRIP's "In the Alternative" Changes to NMED's Proposed Amendment:

In the alternative, if the WQCC finds that adding the term "discharge permit amendment" to 20.6.2 NMAC does not exceed either the NMED's or the WQCC's authority under the WQA, Amigos Bravos and GRIP propose the following changes to NMED's proposed amendments:

H. A permittee may submit a request for a discharge permit amendment to the department ~~at any time during the term of an approved discharge permit.~~ once per year for each year of a discharge permit term.

III. 20.6.2.3109 NMAC – NMED's Proposal to Add "Discharge Permit Amendment" to the Secretary's Approval, Disapproval, Modification or Termination of Discharge Permits, and Requirements for Abatement Plans.

Statement of Position:

Amigos Bravos and GRIP oppose NMED's proposed amendment to add "discharge permit amendment" to 20.6.2.3109 NMAC in its entirety for the following reasons.

Statement of Reasons for Changes to NMED's Proposed Amendment:

1. NMED's proposed term "discharge permit amendment" creates a new category of NMED actions called "amendments" not authorized under the Water Quality Act ("WQA"). The proposed term and definition both clearly violate the WQA because they exceed the authority of both the WQCC and NMED under the WQA. The WQA expressly authorizes NMED to perform the following actions: deny a permit, terminate a permit, modify a permit, or grant a permit subject to a condition. *See* NMSA 1978, § 74-6-5(M), (N). The WQA only authorizes the WQCC to promulgate procedures, by regulation, for the "issuance or modification of a permit" and for the "issuance of renewals of permits." NMSA 1978, § 74-6-5(F). The WQA does not permit the WQCC to adopt regulations providing procedures for NMED to "amend" a discharge permit. *Id.*

Therefore, the proposed addition of “discharge permit amendment” to the current ground water and surface water protection regulations exceeds NMED’s authority under the Act. If the WQCC were to adopt this proposed revision, it too would exceed its authority under the Act, violating NMSA 1978, § 74-6-4(C). NMED, in its Statement of Reasons provided with its May 1, 2017 Petition conceded that it has been engaging in an unlawful practice by approving “amendments” to discharge permits in effect. *See* NMED’s “Statement of Reasons For Proposed Amendments to 20.6.2 NMAC”, reason #3 (May 1, 2017). The WQCC must refrain from legitimizing NMED’s unlawful practice with codification.

2. The inclusion of this new term would have the effect of eliminating the need to provide public notice, opportunity for public comment, and an opportunity for a public hearing for a permitting action that should be administered as a “discharge permit modification.” It is not clear whether NMED’s proposed definition for “discharge permit amendment” would administer all changes to a permit’s monitoring, reporting, sampling and analysis, closure plan, containment system(s), pollution control unit(s), and sewerage system(s) requirements as amendments, as long as such changes would not result in a change in location of the discharge, increase in the discharge volume, or introduction of a new contaminant. Under NMED’s proposed term and definition, it is conceivable that the public would never receive notice of *any* changes made to monitoring, reporting, sampling and analysis, closure plan, contain system(s), pollution control unit(s), and sewerage system(s) requirements under NMED’s proposed amendment. This is because NMED’s proposed “discharge permit amendment” would not require public notice, public comment, and an opportunity for a public hearing. Amigos Bravos and GRIP

maintain that *any* changes to a permit's monitoring, reporting, sampling and analysis, closure plan, containment system(s), pollution control unit(s), and sewerage system(s) requirements are properly administered as "discharge permit modifications", which require public notice, public comment, and an opportunity for a public hearing. Section 20.6.2.3108 NMAC.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendment:

Amigos Bravos and GRIP propose to delete NMED's proposed amendment in its entirety as follows:

20.6.2.3109 SECRETARY APPROVAL, DISAPPROVAL, MODIFICATION, ~~AMENDMENT~~ OR TERMINATION OF DISCHARGE PERMITS, AND REQUIREMENT FOR ABATEMENT PLANS:

A. The department shall evaluate the application for a discharge permit, modification or renewal based on information contained in the department's administrative record. The department may request from the discharger, either before or after the issuance of any public notice, additional information necessary for the evaluation of the application. The administrative record shall consist of the application, any additional information required by the department, any information submitted by the discharger or the general public, other information considered by the department, the proposed approval or disapproval of an application for a discharge permit, modification or renewal prepared pursuant to Subsection G of 20.6.2.3108 NMAC, and, if a public hearing is held, all of the documents filed with the hearing clerk, all exhibits offered into evidence at the hearing, the written transcript or tape recording of the hearing, any hearing officer report, and any post hearing submissions.

~~B. A discharge permit amendment shall be administratively reviewed and evaluated by the department.~~

~~(1) The department shall approve, approve with conditions, disapprove or request additional information necessary for a determination regarding a discharge permit amendment within 30 days of receipt of a request.~~

~~(2) The department shall provide notice of all discharge permit amendment approvals or denials to those persons on the facility-specific list~~

~~**maintained by the department who have requested notice of discharge permit applications.**~~

In the alternative, if the WQCC finds that adding the term “discharge permit amendment” to 20.6.2 NMAC does not exceed either NMED’s or the WQCC’s authority under the WQA, Amigos Bravos and GRIP propose “in the alternative” changes to NMED’s proposed amendments for the following reasons.

Statement of Reasons for “In the Alternative” Changes to NMED’s Proposed Amendment:

1. NMED’s decision to either approve or deny a request for a discharge permit amendment must be based on information in the administrative record.
2. The severely limited notice of the department’s decision to either approve or deny a request for a discharge permit amendment to “those persons on the facility-specific list maintained by the department *who have requested notice of discharge permit applications*” is inappropriate for the following reasons. First, to limit notice of the department’s decision regarding a request for a discharge permit amendment defeats the purpose of having the decision subject to appeal pursuant to 20.6.2.3112 NMAC. If notice is not provided to the public in general and to persons who participated in the discharge permit hearing, no one will know of the opportunity to appeal the department’s decision to the WQCC. NMED’s proposed notice requirement is so limited that persons who are on a facility-specific list will not even receive notice unless they specifically request notice of discharge permit applications for that facility. In order to give full meaning and effect to 20.6.2.3112 NMAC, notice of the department’s approval or denial of a request for a discharge permit amendment must be as broad and inclusive as possible.

Amigos Bravos's & GRIP's "In the Alternative" Changes to NMED's Proposed Amendment:

20.6.2.3109 SECRETARY APPROVAL, DISAPPROVAL, MODIFICATION, AMENDMENT OR TERMINATION OF DISCHARGE PERMITS, AND REQUIREMENT FOR ABATEMENT PLANS:

A. The department shall evaluate the application for a discharge permit, modification ~~or~~ renewal or amendment based on information contained in the department's administrative record. The department may request from the discharger, either before or after the issuance of any public notice, additional information necessary for the evaluation of the application. The administrative record shall consist of the application, any additional information required by the department, any information submitted by the discharger or the general public, other information considered by the department, the proposed approval or disapproval of an application for a discharge permit, modification ~~or~~ renewal, or amendment prepared pursuant to Subsection G of 20.6.2.3108 NMAC, and, if a public hearing is held, all of the documents filed with the hearing clerk, all exhibits offered into evidence at the hearing, the written transcript or tape recording of the hearing, any hearing officer report, and any post hearing submissions.

B. A discharge permit amendment shall be administratively reviewed and evaluated by the department.

(1) The department shall approve, approve with conditions, disapprove or request additional information necessary for a determination regarding a discharge permit amendment within 30 days of receipt of a request.

(2) The department shall provide notice of all discharge permit amendment requests within 30 days of determining an application for a discharge permit request is administratively complete by posting a notice on its website and by mailing notice to any affected local, state, federal, tribal or pueblo governmental agency, political subdivisions, ditch associations and land grants, as identified by the department. The department shall also mail or email notice to those persons who participated in the discharge permit hearing and to those persons on an industry, facility, and permit specific list maintained by the department. The department shall provide notice of all discharge permit amendment approvals or denials ~~to those persons on the facility-specific list maintained by the department who have requested notice of discharge permit applications,~~ on its website and with public notice 2 (PN-2) issued by the department for discharge permit applications, and by mailing notice to any affected local, state, federal, tribal or pueblo governmental

agency, political subdivisions, ditch associations and land grants, as identified by the department. The department shall also mail or email notice to those persons who participated in the discharge permit hearing and to those persons on an industry, facility, and permit specific list maintained by the department.

(3) The permittee shall provide notice of all discharge permit amendment approvals to the general public in the locale of the approved discharge permit amendment in a form provided by the department by each of the methods listed below:

a. for each 640 contiguous acres or less of a discharge site, prominently posting a synopsis of the public notice at least 2 feet by 3 feet in size, in English and in Spanish, at a place conspicuous to the public, approved by the department, at or near the proposed facility for 30 days; one additional notice, in a form approved by and may be provided by the department, shall be posted at a place located off the discharge site, at a place conspicuous to the public and approved by the department; the department may require a second posting location for more than 640 contiguous acres or when the discharge site is not located on contiguous properties;

b. providing written notice of the approved discharge amendment by mail or electronic mail, to owners of record of all properties within a 1/3 mile distance from the boundary of the property where the discharge site is located; if there are no properties other than properties owned by the discharger within a 1/3 mile distance from the boundary of property where the discharge site is located, the applicant shall provide notice to owners of record of the next nearest adjacent properties not owned by the permittee;

c. providing notice by certified mail, return receipt requested, to the owner of the discharge site if the permittee is not the owner; and

d. publishing a synopsis of the notice in English and in Spanish, in a display ad at least three inches by four inches not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the proposed discharge.

(4) The notice provided under Subsection B(3) of 20.6.2.3109 NMAC shall include:

a. the name and address of the permittee;

b. a brief description of the amendment approved, including the following:

- i. the location of any amended discharge, including a street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks;
- ii. a brief description of the activities that produce the amended discharge that has been approved by the department;
- iii. a brief description of the expected quality and volume of the amended discharge approved by the department;
- iv. the depth to and total dissolved solids concentration of the ground water most likely to be affected by the amended discharge;
- v. the address and phone number within the department by which interested persons may obtain information and be placed on a facility-specific mailing list for future notices; and
- vi. a statement that the department's approval of the discharge permit amendment is subject to appeal to the New Mexico Water Quality Control Commission pursuant to 20.6.2.3112.A NMAC.

IV. 20.6.2.3112 NMAC – NMED's Proposal to Provide for Appeals of Discharge Permit Amendment Approvals

Statement of Position:

Amigos Bravos and GRIP oppose NMED's proposal to provide for appeals of discharge permit amendment approvals for the following reasons.

Statement of Reasons for Changes to NMED's Proposed Amendment:

1. NMED's proposed term "discharge permit amendment" creates a new category of NMED actions called "amendments" not authorized under the Water Quality Act ("WQA"). The proposed term and definition both clearly violate the WQA because they exceed the authority of both the WQCC and NMED under the WQA. The WQA expressly authorizes NMED to perform the following actions: deny a permit, terminate a permit, modify a permit, or grant a permit subject to a condition. See NMSA 1978, § 74-

6-5(M), (N). The WQA only authorizes the WQCC to promulgate procedures, by regulation, for the “issuance or modification of a permit” and for the “issuance of renewals of permits.” NMSA 1978, § 74-6-5(F). The WQA does not permit the WQCC to adopt regulations providing procedures for NMED to “amend” a discharge permit. *Id.* Therefore, the proposed addition of “discharge permit amendment” to the current ground water and surface water protection regulations exceeds NMED’s authority under the Act. If the WQCC were to adopt this proposed revision, it too would exceed its authority under the Act, violating NMSA 1978, § 74-6-4(C). NMED, in its Statement of Reasons provided with its May 1, 2017 Petition conceded that it has been engaging in an unlawful practice by approving “amendments” to discharge permits in effect. *See* NMED’s “Statement of Reasons For Proposed Amendments to 20.6.2 NMAC”, reason #3 (May 1, 2017). The WQCC must refrain from legitimizing NMED’s unlawful practice with codification.

2. The inclusion of this new term would have the effect of eliminating the need to provide public notice, opportunity for public comment, and an opportunity for a public hearing for a permitting action that should be administered as a “discharge permit modification.” It is not clear whether NMED’s proposed definition for “discharge permit amendment” would administer all changes to a permit’s monitoring, reporting, sampling and analysis, closure plan, containment system(s), pollution control unit(s), and sewerage system(s) requirements as amendments, as long as such changes would not result in a change in location of the discharge, increase in the discharge volume, or introduction of a new contaminant. Under NMED’s proposed term and definition, it is conceivable that the public would never receive notice of *any* changes made to monitoring, reporting,

sampling and analysis, closure plan, contain system(s), pollution control unit(s), and sewerage system(s) requirements under NMED's proposed amendment. This is because NMED's proposed "discharge permit amendment" would not require public notice, public comment, and an opportunity for a public hearing. Amigos Bravos and GRIP maintain that *any* changes to a permit's monitoring, reporting, sampling and analysis, closure plan, containment system(s), pollution control unit(s), and sewerage system(s) requirements are properly administered as "discharge permit modifications", which require public notice, public comment, and an opportunity for a public hearing. Section 20.6.2.3108 NMAC.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendment:

Amigos Bravos and GRIP propose to delete NMED's proposed amendment in its entirety as follows:

20.6.2.3112 APPEALS OF SECRETARY'S DECISIONS:

A. If the secretary approves, approves subject to conditions, or disapproves a proposed discharge plan, renewal or modification, or modifies, **amends** or terminates a discharge permit, appeal therefrom shall be in accordance with the provisions of Sections 74-6-5(N), (O) and (P), NMSA 1978. The filing of an appeal does not act as a stay of any provision of the Act, the regulations, or any permit issued pursuant to the Act, unless otherwise ordered by the secretary or the commission.

In the Alternative Statement of Position:

In the alternative, if the WQCC finds that adding the term "discharge permit amendment" to 20.6.2 NMAC does not exceed either NMED's or the WQCC's authority under the WQA, Amigos Bravos and GRIP support NMED's proposal to provide for appeals of discharge permit amendment approvals to the WQCC and do not propose any additional changes for the following reasons.

In the Alternative Statement of Reasons:

1. Under current regulations, the following Secretary decisions are subject to appeal:
approval, approval subject to conditions, or disapproval of a proposed discharge permit, renewal or modification; or modification or termination of an active discharge permit.
20.6.2.3112 NMAC. Termination of a discharge permit, like NMED's proposed new term "discharge permit amendment," is reviewed internally by the department – without public notice, public comment, or a public hearing. *See* Sections 20.6.2.3109.E(2), (3), and –(F) NMAC. However, termination decisions are subject to appeal to the WQCC, pursuant to Section 20.6.2.3112 NMAC. Therefore, Amigos Bravos and GRIP support NMED's proposed amendment to provide for appeal of discharge permit amendment approvals.

V. 20.6.2.7.P NMAC – NMED's Proposal to Amend Definition of "Discharge Permit Modification"

Statement of Position:

NMED proposes to amend the definition for "discharge permit modification" to incorporate NMED's proposed new term "discharge permit amendment". Amigos Bravos and GRIP oppose in part and support in part NMED's proposed amendments to 20.6.2.7.P NMAC for the following reasons. Amigos Bravos and GRIP support NMED's proposed amendment to remove "a significant increase in" from a change in the quantity of a discharge and NMED's proposed amendment to remove "significant" from a change in the quality of the discharge. Amigos Bravos and GRIP oppose NMED's proposed amendment to include "that does not qualify as a discharge permit amendment".

Statement of Reasons for Changes to NMED's Proposed Amendments:

1. Any increase in the quantity of a discharge clearly constitutes a major modification of a discharge permit, requiring public notice and public participation. Any change in the quality of a discharge clearly constitutes a major modification of a discharge permit, requiring public notice and public participation.
2. As previously discussed, the proposed agency action of "discharge permit amendment" is unlawful under the Water Quality Act.
3. The current definition of "discharge permit modification" does not cover changes made to other requirements of a discharge permit beyond modifications that result in changes to the location, quantity and quality of discharges and introduction of new contaminant(s). For example, changes to permit requirements such as monitoring, reporting, sampling and analysis, closure plan, containment system(s), pollution control unit(s) and sewerage system(s) requirements are not included in the current regulatory definition. Hence, if a permittee or the department proposes to change any of these equally important permit requirements, the change does not qualify as a modification under the current regulatory definition, allowing NMED and the permittee to circumvent the WQA's public notice and participation requirements. Amigos Bravos and GRIP maintain that changes to a permit's monitoring, reporting, sampling and analysis, closure plan, containment system(s), pollution control unit(s), and sewerage system(s) requirements are properly administered as "discharge permit modifications", which require public notice, public comment, and an opportunity for a public hearing. Section 20.6.2.3108 NMAC.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendment:

Amigos Bravos and GRIP thus propose the following changes:

(5) "discharge permit modification" means a change to the requirements of a discharge permit that result from a change in the location of the discharge; ~~a [significant increase in] the quantity of the discharge, or a [significant] change in the quality of the discharge; that does not qualify as a discharge permit amendment;~~ a change in monitoring locations or a reduction in monitoring frequency or constituents; a reduction in reporting frequency or removal of a reporting requirement; a reduction or removal of procedures for detecting failure of the discharge system; a change to the containment system(s), pollution control unit(s), or sewerage system(s); a change to the closure plan; a reduction or removal of a sampling and analysis requirement, or as required by the secretary;

VI. 20.6.2.7.WW NMAC – NMED's Proposal to Amend Definition of "Toxic Pollutant"

Statement of Position:

NMED proposes to amend 20.6.2.7.WW NMAC to add several toxic pollutants to the current regulatory definition "to enable regulation of these dangerous constituents for the protection of human health" (NMED's "Statement of Reasons for Proposed Amendments to 20.6.2 NMAC"), yet has failed to provide its rationale or any scientific basis for its proposed amendments. Therefore, Amigos Bravos and GRIP are only able to provide a preliminary statement of position with proposed changes and statement of reasons. Amigos Bravos and GRIP reserve the right to amend their statement of position on NMED's proposed amendments to 20.6.2.7.WW NMAC and reserve the right to provide additional proposed changes and present additional arguments pertaining to NMED's proposed amendments either in rebuttal testimony to be filed on October 13, 2017 or at the November 14, 2017 public hearing.

Amigos Bravos and GRIP generally support the addition of several new toxic pollutants to the current regulatory definition for "toxic pollutant". However, Amigos Bravos and GRIP

propose to add several additional toxic pollutants to 20.6.7.WW NMAC for the following reasons.

Statement of Reasons for Change to NMED's Proposed Amendments:

1. NMED has not provided its rationale or the scientific basis for limiting the addition of new toxic pollutants to the current regulatory definition to NMED's proposed list.
2. Amigos Bravos and GRIP propose to add chlorobenzene, alachlor, asbestos, total trihalomethanes, 2,4-D, dalapon, 1,2-dibromo-3-chloropropane, di (2-ethylhexyl) phthalate, dioxin, methoxychlor, simazine, 2,4,5-TP (silvex), bromate, carbofuran, chlorite, di-(2-ethylhexyl) adipate, dinoseb, diquat, endothall, glyphosate, heptachlor epoxide, oxamyl, and picloram, which are presently being regulated by the U.S. Environmental Protection Agency ("EPA"), to New Mexico's current regulatory definition.
3. Amigos Bravos and GRIP propose to add gamma-BHC, chromium III, chromium VI, dibromochloromethane, 1,3-dichloropropene, lead acetate, lead subacetate, trichlorofluoromethane, 1,1,2-trichloro-1,2,2-trifluoroethane, which are presently being regulated by California, to New Mexico's current regulatory definition. California is at the forefront of promulgating of regulations more protective of ground water quality than federal standards.
4. NMED's process for determining necessary amendments to 20.6.2.7.WW NMAC was flawed. NMED should have engaged in a more deliberative, collaborative process for determining necessary amendments to 20.6.2.7.WW NMAC by establishing a working group involving industry, municipalities, environmental groups and other stakeholders.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendment:

Amigos Bravos and GRIP therefore propose to include additional toxic pollutants to NMED's proposed amendment as follows:

[WW:] (2) "toxic pollutant" means[~~a water contaminant or combination of water contaminants in concentration(s) which, upon exposure, ingestion, or assimilation either directly from the environment or indirectly by ingestion through food chains, will unreasonably threaten to injure human health, or the health of animals or plants which are commonly hatched, bred, cultivated or protected for use by man for food or economic benefit; as used in this definition injuries to health include death, histopathologic change, clinical symptoms of disease, behavioral abnormalities, genetic mutation, physiological malfunctions or physical deformations in such organisms or their offspring; in order to be considered a toxic pollutant a contaminant must be one or a combination of the potential toxic pollutants listed below and be at a concentration shown by scientific information currently available to the public to have potential for causing one or more of the effects listed above;~~] any water contaminant or combination of the water contaminants in the list below [~~creating a lifetime risk of more than one cancer per 100,000 exposed persons is a toxic pollutant:~~

- _____ (1) _____ acrolein
- _____ (2) _____ acrylonitrile
- _____ (3) _____ aldrin
- _____ (4) _____ benzene
- _____ (5) _____ benzdine
- _____ (6) _____ carbon tetrachloride
- _____ (7) _____ chlordane
- _____ (8) _____ chlorinated benzenes
 - _____ (a) _____ monochlorobenzene
 - _____ (b) _____ hexachlorobenzene
 - _____ (c) _____ pentachlorobenzene
- _____ (9) _____ 1,2,4,5 tetrachlorobenzene
- _____ (10) _____ chlorinated ethanes
 - _____ (a) _____ 1,2 dichloroethane
 - _____ (b) _____ hexachloroethane
 - _____ (c) _____ 1,1,2,2 tetrachloroethane
 - _____ (d) _____ 1,1,1 trichloroethane
 - _____ (e) _____ 1,1,2 trichloroethane
- _____ (11) _____ chlorinated phenols
 - _____ (a) _____ 2,4 dichlorophenol
 - _____ (b) _____ 2,4,5 trichlorophenol
 - _____ (c) _____ 2,4,6 trichlorophenol
- _____ (12) _____ chloroalkyl ethers
 - _____ (a) _____ bis (2-chloroethyl) ether

- _____ (b) bis (2-chloroisopropyl) ether
- _____ (c) bis (chloromethyl) ether
- _____ (13) chloroform
- _____ (14) DDT
- _____ (15) dichlorobenzene
- _____ (16) dichlorobenzidine
- _____ (17) 1,1-dichloroethylene
- _____ (18) dichloropropenes
- _____ (19) dieldrin
- _____ (20) diphenylhydrazine
- _____ (21) endosulfan
- _____ (22) endrin
- _____ (23) ethylbenzene
- _____ (24) halomethanes
 - _____ (a) bromodichloromethane
 - _____ (b) bromomethane
 - _____ (c) chloromethane
 - _____ (d) dichlorodifluoromethane
 - _____ (e) dichloromethane
 - _____ (f) tribromomethane
 - _____ (g) trichlorofluoromethane
- _____ (25) heptachlor
- _____ (26) hexachlorobutadiene
- _____ (27) hexachlorocyclohexane (HCH)
 - _____ (a) alpha-HCH
 - _____ (b) beta-HCH
 - _____ (c) gamma-HCH
 - _____ (d) technical HCH
- _____ (28) hexachlorocyclopentadiene
- _____ (29) high explosives (HE)
 - _____ (a) 2,4-dinitrotoluene (2,4-DNT)
 - _____ (b) 2,6-dinitrotoluene (2,6-DNT)
 - _____ (c) octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)
 - _____ (d) hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)
 - _____ (e) 2,4,6-trinitrotoluene (TNT)
- _____ (30) isophorone
- _____ (31) methyl tertiary butyl ether
- _____ (32) nitrobenzene
- _____ (33) nitrophenols
 - _____ (a) 2,4-dinitro-o-cresol
 - _____ (b) dinitrophenols
- _____ (34) nitrosamines
 - _____ (a) N-nitrosodiethylamine
 - _____ (b) N-nitrosodimethylamine
 - _____ (c) N-nitrosodibutylamine

- _____ (d) N-nitrosodiphenylamine
- _____ (e) N-nitrosopyrrolidine
- _____ (35) pentachlorophenol
- _____ (36) perchlorate
- _____ (37) phenol
- _____ (38) phthalate esters
 - _____ (a) dibutyl phthalate
 - _____ (b) di-2-ethylhexyl phthalate
 - _____ (c) diethyl phthalate
 - _____ (d) dimethyl phthalate
- _____ (39) polychlorinated biphenyls (PCB's)
- _____ (40) polynuclear aromatic hydrocarbons (PAH)
 - _____ (a) anthracene
 - _____ (b) 3,4-benzofluoranthene
 - _____ (c) benzo (k) fluoranthene
 - _____ (d) fluoranthene
 - _____ (e) fluorene
 - _____ (f) phenanthrene
 - _____ (g) pyrene
- _____ (41) tetrachloroethylene
- _____ (42) toluene
- _____ (43) toxaphene
- _____ (44) trichloroethylene
- _____ (45) vinyl chloride
- _____ (46) xylenes
 - _____ (a) o-xylene
 - _____ (b) m-xylene
 - _____ (c) p-xylene
- _____ (47) 1,1-dichloroethane
- _____ (48) ethylene dibromide (EDB)
- _____ (49) cis-1,2-dichloroethylene
- _____ (50) trans-1,2-dichloroethylene
- _____ (51) naphthalene
- _____ (52) 1-methylnaphthalene
- _____ (53) 2-methylnaphthalene
- _____ (54) benzo-a-pyrene]
 - (a) acrolein
 - (b) acrylonitrile
 - (c) benzene and alkylbenzenes
 - (i) benzene
 - (ii) toluene (methylbenzene)
 - (iii) ethylbenzene
 - (iv) xylenes (dimethyl benzene isomers)
 - (A) o-xylene
 - (B) m-xylene

- (C) p-xylene
- (v) styrene (ethenylbenzene)
- (d) chlorinated benzenes
 - (i) monochlorobenzene
 - (ii) 1,2-dichlorobenzene (ortho-dichlorobenzene)
 - (iii) 1,4-dichlorobenzene (para-dichlorobenzene)
 - (iv) 1,2,4-trichlorobenzene
 - (v) 1,2,4,5-tetrachlorobenzene
 - (vi) pentachlorobenzene
 - (vii) hexachlorobenzene
- (e) chlorinated phenols
 - (i) 2,4-dichlorophenol
 - (ii) 2,4,5-trichlorophenol
 - (iii) 2,4,6-trichlorophenol
 - (iv) pentachlorophenol (PCP)
- (f) chloroalkyl ethers
 - (i) bis (2-chloroethyl) ether
 - (ii) bis (2-chloroisopropyl) ether
 - (iii) bis (chloromethyl) ether
- (g) 1,2-dichloropropane (propylene dichloride, PDC)
- (h) dichloropropenes
- (i) 1,4-dioxane
- (j) halogenated ethanes
 - (i) 1,2-dibromoethane (ethylene dibromide, EDB)
 - (ii) 1,1-dichloroethane (1,1-DCA)
 - (iii) 1,2-dichloroethane (ethylene dichloride, EDC)
 - (iv) 1,1,1-trichloroethane (TCA)
 - (v) 1,1,2-trichloroethane (1,1,2-TCA)
 - (vi) 1,1,2,2-tetrachloroethane
 - (vi) hexachloroethane
- (k) halogenated ethenes
 - (i) chloroethene (vinyl chloride)
 - (ii) 1,1-dichloroethene (1,1-DCE)
 - (iii) cis-1,2-dichloroethene (cis-1,2-DCE)
 - (iv) trans-1,2-dichloroethene (trans-1,2-DCE)
 - (v) trichloroethene (trichloroethylene, TCE)
 - (vi) tetrachloroethene (perchloroethylene, PCE)
- (l) halogenated methanes
 - (i) bromodichloromethane
 - (ii) bromomethane
 - (iii) chloromethane
 - (iv) dichlorodifluoromethane (fluorocarbon-12)
 - (v) dichloromethane (methylene chloride)
 - (vi) tribromomethane (bromoform)
 - (vii) trichloromethane (chloroform)

- (viii) tetrachloromethane (carbon tetrachloride)
 - (ix) trichlorofluoromethane (fluorocarbon-11)
- (m) hexachlorobutadiene
- (n) isophorone
- (o) methyl tertiary-butyl ether (MTBE)
- (p) nitroaromatics and high explosives (HE)
 - (i) nitrobenzene
 - (ii) 2,4-dinitrotoluene (2,4-DNT)
 - (iii) 2,6-dinitrotoluene (2,6-DNT)
 - (iv) octahydro-1,3,5,7-tetranitro-1,3,5,7 tetrazocine (HMX)
 - (v) hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)
 - (vi) 2,4,6-trinitrotoluene (TNT)
 - (vii) 2,4-dinitro-o-cresol
 - (viii) dinitrophenols
- (q) nitrosamines
 - (i) N-nitrosodiethylamine
 - (ii) N-nitrosodimethylamine
 - (iii) N-nitrosodibutylamine
 - (iv) N-nitrosodiphenylamine
 - (v) N-nitrosopyrrolidine
- (r) perchlorate
- (s) perfluorinated chemicals (PFCs)
 - (i) perfluorohexane sulfonic acid (PFHxS)
 - (ii) perfluorooctane sulfonate (PFOS)
 - (iii) perfluorooctanoic acid (PFOA)
- (t) pesticides
 - (i) aldrin
 - (ii) atrazine
 - (iii) chlordane
 - (iv) DDT
 - (v) dieldrin
 - (vi) endosulfan
 - (vii) endrin
 - (viii) heptachlor
 - (ix) hexachlorocyclohexane (HCH, lindane)
 - (A) alpha-HCH
 - (B) beta-HCH
 - (C) gamma-HCH
 - (D) technical-HCH
 - (x) hexachlorocyclopentadiene
 - (xi) prometon
 - (xii) toxaphene
- (u) phenol
- (v) phthalate esters
 - (i) dibutyl phthalate

- (ii) di-2-ethylhexyl phthalate (DEHP)
- (iii) diethyl phthalate (DEP)
- (iv) dimethyl phthalate (DMP)
- (w) polycyclic compounds
 - (i) benzidine
 - (ii) dichlorobenzidine
 - (iii) diphenylhydrazine
 - (iii) polychlorinated biphenyls (PCBs)
- (x) polynuclear aromatic hydrocarbons (PAHs)
 - (i) anthracene
 - (ii) benzo(a)pyrene
 - (iii) 3,4-benzofluoranthene
 - (iv) benzo(k)fluoranthene
 - (v) fluoranthene
 - (vi) fluorene
 - (vii) naphthalene
 - (viii) 1-methylnaphthalene
 - (ix) 2-methylnaphthalene
 - (x) phenanthrene
 - (xi) pyrene
- (y) thiolane 1,1 dioxide (sulfolane)

(z) Gamma-BHC

(aa) Alachlor

(bb) Asbestos

(cc) Total Trihalomethanes

(dd) Chlorobenzene

(ee) Chromium III

(ff) Chromium VI

(gg) 2,4-D

(hh) Dalapon

(ii) Dibromochloromethane

(ij) 1,2-Dibromo-3-chloropropane

(kk) 1,3-Dichloropropene

(ll) Di(2-ethylhexyl)phthalate

(mm) Dioxin

(nn) Lead acetate

(oo) Lead subacetate

(pp) Methoxychlor

(qq) Simazine

(rr) 2,4,5-TP (silvex)

(ss) Bromate

(tt) Carbofuran

(uu) Chlorite

(vv) Di-(2-ethylhexyl) adipate

(ww) Dinoseb

(xx) Diquat
(yy) Endothall
(zz) Glvphosate
(aaa) Heptachlor epoxide
(bbb) Oxamyl
(ccc) Picloram
(ddd) Trichlorofluoromethane
(eee) 1,1,2-trichloro-1,2,2-trifluoroethane

VII. 20.6.2.3103.A NMAC – NMED’s Proposal to Amend Human Health Standards

Statement of Position:

NMED proposes to change numeric ground water standards for several toxic pollutants yet has failed to provide its rationale or any scientific basis for its proposed amendments. Therefore, Amigos Bravos and GRIP are only able to provide a preliminary statement of position with proposed changes and statement of reasons. Amigos Bravos and GRIP reserve the right to amend their statement of position on NMED’s proposed amendments to 20.6.2.3103.A NMAC and reserve the right to provide additional proposed changes and present additional arguments pertaining to NMED’s proposed amendments either in rebuttal testimony to be filed on October 13, 2017 or at the November 14, 2017 public hearing.

While Amigos Bravos and GRIP generally support updating and strengthening human health standards for toxic pollutants in ground water, NMED has not provided its rationale or the scientific basis for why it is not proposing that the WQCC adopt the most stringent standards for all toxic pollutants listed in 20.6.2.7.WW NMAC.

Additionally, though NMED has stated that it “proposes changes to the numeric standards to bring those standards in line with Maximum Contaminant Levels for each pollutant as specified by the U.S. Environmental Protection Agency (“EPA”) under the federal Clean

Water Act”, NMED has inconsistently applied this rationale to its proposed amendments. *See* NMED’s Petition to Amend 20.6.2 NMAC, Statement of Reasons, #7 (May 1, 2017).

Amigos Bravos and GRIP oppose NMED’s proposed amendments to weaken human health standards for any currently regulated toxic pollutant, such as for barium; toluene; 1,1-dichloroethylene (1,1-DCE); 1,1,1-trichloroethane (TCA); and vinyl chloride.

Amigos Bravos and GRIP support NMED’s proposed amendments to strengthen human health standards, such as for arsenic; cadmium; lead; radium-226 & radium-228; polychlorinated biphenyls (PCB’s); PCE; TCE; methylene chloride; EDB; 1,1,2-trichloroethane; and benzo-a-pyrene.

Amigos Bravos and GRIP oppose NMED’s proposed amendment to maintain, rather than strengthen, the current human health standards for the following toxic pollutants: cyanide; uranium; 1,1-dichloroethane; and 1,1,2,2-tetrachloroethane.

Amigos Bravos and GRIP support NMED’s proposal to maintain the current protective standards for the following toxic pollutants: chromium, fluoride, total mercury, nitrate, total xylenes and PAHs.

Amigos Bravos and GRIP also do not understand why the following new toxic pollutants NMED has proposed to be added to 20.6.2.7.WW NMAC are not listed under 20.6.2.3103.A NMAC along with a corresponding numeric standard when EPA and other state environmental agencies, such as California Environmental Protection Agency, have set Maximum Contaminant Levels for the following toxic pollutants: hexachlorobenzene (HCB), bromodichloromethane, chlordane, endrin, heptachlor, perchlorate, toxaphene, dichloromethane, hexachlorocyclopentadiene, hexachlorocyclohexane (Lindane).

Finally, Amigos Bravos and GRIP do not support NMED's proposal to maintain the one cancer per 100,000 exposed persons risk level contained in 20.6.2.3103.A(2) NMAC.

Statement of Reasons for Changes to NMED's Proposed Amendments:

1. The federal Clean Water Act and Safe Drinking Water Act, as well as the New Mexico Water Quality Act, do not preclude the WQCC from setting standards higher than federal standards. The federal standards merely serve as a floor for water quality standards – not a ceiling. The WQCC should adopt the most protective water quality standards to ensure that New Mexicans have access to safe drinking water. Amigos Bravos and GRIP have changed NMED's proposed amendments to include California's more stringent standards.
2. The WQA makes clear that the WQCC shall only adopt water quality standards for surface and ground waters of the state "based on credible scientific data." NMSA 1978, § 74-6-4(D). The WQCC's adoption of current standards for barium, toluene, 1,1,1-trichloroethane and vinyl chloride was based on "credible scientific data" presented at WQCC public hearings and the WQCC determined those standards were necessary for the protection of New Mexico's ground water and public health.
3. NMED has not been consistent with bringing "standards in line with the Maximum Contaminant Levels for each pollutant as specified by the U.S. Environmental Protection Agency ("EPA") under the federal Clean Water Act" in its proposed amendments to 20.6.2.3103.A NMAC.
4. NMED's use of one cancer per 100,000 exposed persons is not sufficiently protective of human health. EPA's *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health* (2000) recommends use of one cancer per 1,000,000 risk

level in setting water quality criteria and considers this cancer risk level appropriate for the general population. Additionally, both California and Washington utilize the EPA's one cancer per 1,000,000 risk level in setting water quality criteria. NMED has stated that the purpose of its proposed amendments to 20.6.2.3103.A NMAC is to bring New Mexico's standards in line with EPA standards. Updating New Mexico's cancer risk level to one cancer per 1,000,000 will accomplish NMED's purpose.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendments:

Amigos Bravos and GRIP, therefore, propose the following changes to NMED's proposed amendments as follows:

A. ~~Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.[1101]7T(2)NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.~~

| | | |
|-----|--|------------------------------|
| (1) | Numerical Standards | |
| (a) | Antimony (Sb) | 0.006 mg/l |
| (b) | Arsenic (As)..... | [0-]0.01 mg/l |
| (c) | Barium (Ba)..... | [1-0]2 mg/l 1.0 mg/l |
| (d) | Beryllium (Be)..... | 0.004 mg/l |
| (e) | Cadmium (Cd)..... | [0-01]0.005 mg/l |
| (f) | Chromium (Cr)..... | 0.05 mg/l |
| (g) | Cyanide (CN)..... | 0.2 mg/l 0.15 mg/l |
| (h) | Fluoride (F)..... | 1.6 mg/l |
| (i) | Lead (Pb)..... | [0-05]0.015 mg/l |
| (j) | Total Mercury (Hg)..... | 0.002 mg/l |
| (k) | Nitrate (NO ₃ as N)..... | 10.0 mg/l |
| (l) | Nitrite (NO ₂ as N)..... | 1.0 mg/l |
| (m) | Selenium (Se)..... | 0.05 mg/l |
| (n) | Silver (Ag)..... | 0.05 mg/l |
| (o) | Thallium (Tl)..... | 0.002 mg/l |
| (p) | Uranium (U)..... | 0.03 mg/l 0.02 mg/l |
| (q) | Radioactivity: Combined Radium-226 & Radium-228..... | [30]5 pCi/l |
| (r) | Benzene..... | [0-01]0.005 mg/l 0.001 mg/l |
| (s) | Polychlorinated biphenyls (PCB's)..... | [0-001]0.0005 mg/l |
| (t) | Toluene..... | [0-75]1 mg/l 0.15 mg/l |
| (u) | Carbon Tetrachloride..... | [0-01]0.005 mg/l 0.0005 mg/l |

| | | |
|-------|--|--|
| (v) | 1,2-dichloroethane (EDC)..... | [0.01] 0.005 mg/l 0.0005 mg/l |
| (w) | 1,1-dichloroethylene (1,1-DCE)..... | [0.005] 0.007 mg/l 0.005 mg/l |
| (x) | 1,1,2,2-tetrachloroethylene (PCE)..... | [0.02] 0.005 mg/l |
| (y) | 1,1,2-trichloroethylene (TCE)..... | [0.1] 0.005 mg/l |
| (z) | ethylbenzene..... | [0.75] 0.7 mg/l 0.3 mg/l |
| (aa) | total xylenes..... | 0.62 mg/l |
| (bb) | methylene chloride..... | [0.1] 0.005 mg/l |
| (cc) | chloroform..... | 0.1 mg/l 0.08 mg/l |
| (dd) | 1,1-dichloroethane..... | 0.025 mg/l 0.0050 mg/l |
| (ee) | ethylene dibromide (EDB)..... | [0.0001] 0.00005 mg/l |
| (ff) | 1,1,1-trichloroethane (TCA)..... | [0.06] 0.2 mg/l 0.06 mg/l |
| (gg) | 1,1,2-trichloroethane..... | [0.01] 0.005 mg/l |
| (hh) | 1,1,2,2-tetrachloroethane..... | 0.01 mg/l 0.0010 mg/l |
| (ii) | vinyl chloride..... | [0.001] 0.002 mg/l 0.0005 mg/l |
| (jj) | PAHs: total naphthalene plus monomethylnaphthalenes..... | 0.03 mg/l |
| (kk) | benzo-a-pyrene..... | [0.0007] 0.0002 mg/l |
| (ll) | cis-1,2-dichloroethene..... | 0.07 mg/l 0.0060 mg/l |
| (mm) | trans-1,2-dichloroethene..... | 0.1 mg/l 0.0100 mg/l |
| (nn) | 1,2-dichloropropane (PDC)..... | 0.005 mg/l |
| (oo) | styrene..... | 0.1 mg/l |
| (pp) | 1,2-dichlorobenzene..... | 0.6 mg/l |
| (qq) | 1,4-dichlorobenzene..... | 0.075 mg/l 0.0050 mg/l |
| (rr) | 1,2,4-trichlorobenzene..... | 0.07 mg/l |
| (ss) | pentachlorophenol..... | 0.001 mg/l |
| (tt) | atrazine..... | 0.003 mg/l 0.0010 mg/l |
| (uu) | gamma-BHC..... | 0.002 mg/l 0.0002 mg/l |
| (vv) | chlorobenzene..... | 0.07 mg/l |
| (ww) | hexachlorobenzene..... | 0.001 mg/l |
| (xx) | alachlor..... | 0.002 mg/l |
| (vy) | asbestos..... | 7 MFL |
| (zz) | bromodichloromethane..... | 0.08 mg/l |
| (aaa) | total trihalomethanes..... | 0.08 mg/l |
| (bbb) | chlordan..... | 0.0001 mg/l |
| (ccc) | chlorobenzene..... | 0.07 mg/l |
| (ddd) | chromium III..... | 0.05 mg/l |
| (eee) | chromium VI..... | 0.01 mg/l |
| (fff) | 2,4-D..... | 0.07 mg/l |
| (ggg) | dalapon..... | 0.2 mg/l |
| (hhh) | dibromochloromethane..... | 0.08 mg/l |
| (iii) | 1,2-Dibromo-3-chloropropane..... | 0.0002 mg/l |
| (iji) | Di(2-ethylhexyl)phthalate..... | 0.004 mg/l |
| (kkk) | dioxin..... | 0.00000003 mg/l |
| (lll) | endrin..... | 0.002 mg/l |
| (mmm) | heptachlor..... | 0.00001 mg/l |
| (nnn) | lead acetate..... | 0.015 mg/l |
| (ooo) | lead subacetate..... | 0.015 mg/l |
| (ppp) | methoxychlor..... | 0.03 mg/l |
| (qqq) | perchlorate..... | 0.006 mg/l |
| (rrr) | simazine..... | 0.004 mg/l |
| (sss) | toxaphene..... | 0.003 mg/l |
| (ttt) | 2,4,5-TP (silvex)..... | 0.05 mg/l |
| (uuu) | bromate..... | 0.01 mg/l |
| (vvv) | carbofuran..... | 0.04 mg/l |
| (www) | chlorite..... | 1.0 mg/l |
| (xxx) | dichloromethane..... | 0.005 mg/l |

| | |
|---|-------------|
| (vvv) di-(2-ethylhexyl) adipate..... | 0.4 mg/l |
| (zzz) dinoseb..... | 0.007 mg/l |
| (aaaa) diquat..... | 0.02 mg/l |
| (bbbb) endothall..... | 0.1 mg/l |
| (cccc) glyphosate..... | 0.7 mg/l |
| (dddd) heptachlor epoxide..... | 0.0002 mg/l |
| (eeee) hexachlorocyclopentadiene..... | 0.05 mg/l |
| (ffff) hexachlorocyclohexane (lindane)..... | 0.0002 mg/l |
| (gggg) oxamyl..... | 0.2 mg/l |
| (hhhh) picloram..... | 0.5 mg/l |
| (iiii) 1,3-Dichloropropene..... | 0.0005 mg/l |
| (jjjj) Trichlorofluoromethane..... | 0.15 mg/l |
| (kkkk) 1,1,2-trichloro-1,2,2-trifluoroethane..... | 1.2 mg/l |

(2) Standards for Toxic Pollutants. A concentration shown by scientific information currently available to the public to have potential for causing one or more of the following effects upon exposure, ingestion, or assimilation either directly from the environment or indirectly by ingestion through food chains: (1) unreasonably threatens to injure human health, or the health of animals or plants which are commonly hatched, bred, cultivated or protected for use by man for food or economic benefit; as used in this definition injuries to health include death, histopathologic change, clinical symptoms of disease, behavioral abnormalities, genetic mutation, physiological malfunctions or physical deformations in such organisms or their offspring; or (2) creates a lifetime risk of more than one cancer per ~~100,000~~ 1,000,000 exposed persons.

(3) Standards for Non-Aqueous Phase Liquids. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

B. Other Standards for Domestic Water Supply

| | |
|--|--|
| (1) Chloride (Cl) | 250.0 mg/l |
| (2) Copper (Cu) | 1.0 mg/l |
| (3) Iron (Fe) | 1.0 mg/l |
| (4) Manganese (Mn) | 0.2 mg/l <u>0.05 mg/l</u> |
| [(6)](5) Phenols..... | 0.005 mg/l |
| [(7)](6) Sulfate (SO ₄) | 600.0 mg/l <u>250 mg/l</u> |
| [(8)](7) Total Dissolved Solids (TDS) | 1000.0 mg/l <u>500 mg/l</u> |
| [(9)](8) Zinc (Zn) | 10.0 mg/l <u>5 mg/l</u> |
| [(10)](9) pH..... | between 6 and 9 |
| (10) Methyl tertiary-butyl ether (MTBE)..... | 0.1 mg/l <u>0.013 mg/l</u> |

C. Standards for Irrigation Use

| | |
|---------------------------|--------------------------------------|
| (1) Aluminum (Al)..... | 5.0 mg/l <u>1.0 mg/l</u> |
| (2) Boron (B) | 0.75 mg/l <u>0.7 mg/l</u> |
| (3) Cobalt (Co) | 0.05 mg/l |
| (4) Molybdenum (Mo) | 1.0 mg/l |
| (5) Nickel (Ni) | 0.2 mg/l <u>0.1 mg/l</u> |

VIII. 20.6.2.3103.A NMAC – NMED’s Proposal to Amend Applicability of Certain Human Health Standards

Statement of Position:

NMED proposes to delay application of its revised human health standards for arsenic, cadmium, lead, combined radium-226 & radium-228, benzene, PCBs, carbon tetrachloride, EDC, PCE, TCE, methylene chloride, EDB, 1,1,2-trichloroethane and benzo-a-pyrene, to past and current water discharges (as of July 1, 2017) until July 1, 2020. NMED also proposes to limit application of its revised human health standards for arsenic, cadmium, lead, combined radium-226 & radium-228, benzene, PCBs, carbon tetrachloride, EDC, PCE, TCE, methylene chloride, EDB, 1,1,2-trichloroethane and benzo-a-pyrene by not requiring sites for which the Secretary has approved an abatement completion report pursuant to 20.6.2.4112 NMAC to comply with the newly revised standards “unless the secretary notifies the responsible person that the site is a source of these contaminants in ground water at a place of withdrawal for present or reasonably foreseeable future use at concentrations in excess of the standards of this section”.

Amigos Bravos and GRIP oppose NMED’s proposed amendments in their entirety for the following reasons.

Statement of Reasons for Changes to NMED’s Proposed Amendments:

1. A revised human health standard for a toxic pollutant discharged to ground water should be applied immediately to all regulated entities.
2. A currently regulated entity should be required to demonstrate that it needs additional time to comply with more stringent standards. The appropriate place to provide a compliance schedule with newly revised human health standards is in a regulated

facility's permit, on a permit-by-permit basis. For example, under the federal Clean Water Act, compliance schedules for human health standards are not provided in the Act's implementing regulations, but rather in an NPDES permit.

3. NMED's proposed amendments do not adequately address the issue of grandfathering sites currently under abatement. Sites for which the secretary has approved an abatement completion report should be required to meet any newly revised standards. These sites should not be exempt from human health standards of any toxic pollutant provided under 20.6.2.3103.A NMAC, but rather should be required to demonstrate their need for additional time to come into compliance with newly revised and adopted standards.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendments:

Amigos Bravos and GRIP therefore propose to delete NMED's proposed amendments in their entirety as follows:

[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. ~~[For any new water discharges, the uranium standard is effective 9-26-04.]~~
~~For purposes of application of the amended numeric standards for arsenic, cadmium, lead, combined radium-226 & radium-228, benzene, PCBs, carbon tetrachloride, EDC, PCE, TCE, methylene chloride, EDB, 1,1,2-trichloroethane and benzo-a-pyrene, to past and current water discharges (as of July 1, 2017), the new standards will not become effective until July 1, 2020. With regard to sites for which the secretary has approved an abatement completion report pursuant to 20.6.2.4112 NMAC, the amended numeric standards for arsenic, cadmium, lead, combined radium-226 & radium-228, benzene, PCBs, carbon tetrachloride, EDC, PCE, TCE, methylene chloride, EDB, 1,1,2-trichloroethane and benzo-a-pyrene shall not apply unless the secretary notifies the responsible person that the site is a source of these contaminants in ground water at a place of withdrawal for present or reasonably foreseeable future use at concentrations in excess of the standards of this section.]~~

IX. 20.6.2.1210 NMAC – NMED’s Proposal to Amend Requirements for Variance Petitions

Statement of Position:

NMED proposes to amend requirements for variance petitions. Amigos Bravos and GRIP oppose in part and support in part NMED’s proposed amendments. Amigos Bravos and GRIP oppose NMED’s proposed amendment to remove the current five-year limit for variances to allow polluters to contaminate ground water and surface water in perpetuity. Amigos Bravos and GRIP support NMED’s proposed amendments to require petitioners for variances to “state in detail how any water pollution above standards will be abated” and to “state the period of time for which the variance is desired including all reasons, data, reports and any other information demonstrating that such time period is justified and reasonable”.

Statement of Reasons for Changes to NMED’s Proposed Amendments:

1. The WQA states that, “The commission may only grant a variance conditioned upon a person effecting a particular abatement of water pollution *within a reasonable period of time.*” NMSA 1978 (as amended by NMSA 1978, Section 74-6-17), Section 74-6-4(H) (emphasis added). The current five-year limit for variances complies with and implements this provision of the WQA. NMED’s intent behind its proposed amendment removing the current five-year limit for variances is to have variances issued for “the life of the facility”. See NMED “Hit List for Regulation Changes as discussed on 11/9/2015.” Variances issued for “the life of the facility” would therefore violate §74-6-4(H).
2. The WQA also provides that a variance “may not be extended or renewed unless a new petition is filed and *a public hearing is held.*” *Id.* (emphasis added). Therefore, when a

facility submits a petition for an initial variance, renewal or extension of a variance, a public hearing *must* be held. NMED's proposed amendment to remove the five-year limit for variances and for NMED to conduct an administrative review every 5 years (of the term of the variance) is the functional equivalent of a variance renewal or extension, and therefore a public hearing must be held on any decisions to renew or extend a variance. This statutory requirement cannot be changed by regulatory amendment.

3. Under current regulations variances have a five-year limit, which parallels the WQA's five-year limit for permits. *See* Section 20.6.2.1210.D NMAC *and* NMSA 1978, § 74-6-5(I). The WQA does not authorize a variance to exceed the term of a permit. § 74-6-5(I).
4. The removal of the five-year limitation for variances would also authorize NMED to eliminate the mandatory holding of a public hearing on petitions for variances (whether new petitions, extension petitions, or renewal petitions) by issuing variances "for the life of the facility".
5. Providing a variance for the life of a facility will give industry incentive to petition the WQCC for variances at an unprecedented level. Neither the WQCC nor NMED currently has the resources to respond to the substantial increase in variance petitions that will most likely result from the removal of the five-year limitation for variances.
6. To approve variances for the life of a facility will undermine NMED's proposed amendment to strengthen human health standards of toxic pollutants discharged to ground water.
7. In the alternative, if the WQCC determines that removal of the five-year limit for variances is lawful under the WQA, Amigos Bravos and GRIP propose alternative

language for the WQCC's consideration. The proposed alternative language for 20.6.2.1210.E, -F, -G, and -H NMAC originates from the New Mexico Solid Waste Act regulations for variances. See 20.9.2.15.C, -D, -E, and -F NMAC. Proposed alternative language for 20.6.2.1210.I NMAC requires petitioners to appear before the WQCC as a condition precedent for the WQCC's consideration and approval of a variance petition.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendment:

Therefore, Amigos Bravos and GRIP propose the following changes to NMED's proposed amendments:

20.6.2.1210 VARIANCE PETITIONS:

A. Any person seeking a variance pursuant to NMSA 1978, Section 74-6-4(H)[G] shall do so by filing a written petition with the commission. The petitioner may submit with his petition any relevant documents or material which the petitioner believes would support his petition. Petitions shall:

- (1) state the petitioner's name and address;
- (2) state the date of the petition;
- (3) describe the facility or activity for which the variance is sought;
- (4) state the address or description of the property upon which the facility is located;
- (5) describe the water body, ~~or~~ watercourse, or aquifer affected by the discharge for which the variance is sought;
- (6) identify the regulation of the commission from which the variance is sought;
- (7) state in detail the extent to which the petitioner wishes to vary from the regulation;
- (8) state why the petitioner believes that compliance with the regulation will impose an unreasonable burden upon his activity; and

(9) ~~[state the period of time for which the variance is desired]~~state in detail how any water pollution above standards will be abated; and

(10) state the period of time for which the variance is desired including all reasons, data, reports and any other information demonstrating that such time period is justified and reasonable.

B. The variance petition shall be reviewed in accordance with the adjudicatory procedures of 20 NMAC 1.3 and shall be reviewed for compliance with existing federal regulations.

C. The commission may grant the requested variance, in whole or in part, may grant the variance subject to conditions, or may deny the variance. ~~[The] If the petition is granted in whole or in part, or subject to conditions, the commission shall [not grant a]specify the length of time that variance [for a period of time in excess of five years.] shall be in place.~~ The commission shall not grant a variance for a period of time in excess of five years.

D. For variances associated with a discharge permit or abatement plan, the existence and nature of the variance shall be disclosed in all public notices applicable to the discharge permit or abatement plan.

E. ~~For variances granted for a period in excess of five years, the petitioner shall provide to the department for review a variance compliance report at five year intervals to demonstrate that the conditions of the variance are being met, including notification of any changed circumstances or newly discovered facts. If such conditions are not being met, or there is evidence indicating changed circumstances or newly discovered facts or conditions that were unknown at the time the variance was initially granted, any person may request a hearing before the commission to revoke, modify or otherwise reconsider the variance.~~ The commission shall deny the variance petition unless the petitioner establishes evidence that:

(1) application of the regulation would result in an arbitrary and unreasonable taking of the applicant's property or would impose an undue economic burden upon any lawful business, occupation or activity; and

(2) granting the variance will not result in any condition injurious to public health, safety or welfare or the environment.

F. No variance shall be granted until the commission has considered the relative interests of the applicant, other owners of property likely to be affected, and the general public.

G. Variance or renewal of a variance shall be granted for time periods and under conditions consistent with reasons for the variance but within the following limitations:

(1) if the variance is granted on the grounds that there are no practicable means known or available for the adequate prevention of degradation of the environment or the risk to the public health, safety or welfare, it shall continue only until the necessary means for the prevention of the degradation or risk become known and available;

(2) if the variance is granted on the grounds that it is justified to relieve or prevent hardship of a kind other than that provided for in Paragraph (1) of this subsection, it shall not be granted for more than one year.

~~F. I.~~ An order of the commission is final and bars the petitioner from petitioning for the same variance without special permission from the commission. The commission may consider, ~~among other things~~, the development of new information and techniques to ~~be sufficient~~ provide significantly different justification for a second petition. If the petitioner, or his authorized representative, fails to appear at the public hearing on the variance petition, ~~the commission shall proceed with the hearing on the basis of the petition.~~ the commission shall not proceed with the hearing and the petition shall be denied. A variance may not be extended or renewed unless a new petition is filed and processed in accordance with the procedures established by this section.

X. 20.6.2.3114 NMAC – NMED’S Proposal to Amend Fees

Statement of Position:

NMED proposes to add “discharge permit amendments” to the fees that the Secretary may waive or reduce under 20.6.2.3114.E NMAC. Amigos Bravos and GRIP oppose this proposed amendment and therefore propose to delete NMED’s proposed amendment in its entirety for the following reasons.

Statement of Reasons for Changes to NMED's Proposed Amendment:

1. NMED's proposed term "discharge permit amendment" creates a new category of NMED actions called "amendments" not authorized under the Water Quality Act ("WQA"). The proposed term and definition both clearly violate the WQA because they exceed the authority of both the WQCC and NMED under the WQA. The WQA expressly authorizes NMED to perform the following actions: deny a permit, terminate a permit, modify a permit, or grant a permit subject to a condition. *See* NMSA 1978, § 74-6-5(M), (N). The WQA only authorizes the WQCC to promulgate procedures, by regulation, for the "issuance or modification of a permit" and for the "issuance of renewals of permits." NMSA 1978, § 74-6-5(F). The WQA does not permit the WQCC to adopt regulations providing procedures for NMED to "amend" a discharge permit. *Id.* Therefore, the proposed addition of "discharge permit amendment" to the current ground water and surface water protection regulations exceeds NMED's authority under the Act. If the WQCC were to adopt this proposed revision, it too would exceed its authority under the Act, violating NMSA 1978, § 74-6-4(C). NMED, in its Statement of Reasons provided with its May 1, 2017 Petition conceded that it has been engaging in an unlawful practice by approving "amendments" to discharge permits in effect. *See* NMED's "Statement of Reasons For Proposed Amendments to 20.6.2 NMAC", reason #3 (May 1, 2017). The WQCC must refrain from legitimizing NMED's unlawful practice with codification.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendment:

Amigos Bravos and GRIP therefore propose to delete NMED's proposed amendment in its entirety as follows:

E. The secretary may waive or reduce fees for discharge permit **amendments**, modifications or renewals which require little or no cost for investigation or issuance.

In the alternative, if the WQCC determines that the addition of “discharge permit amendment” to 20.6.3 NMAC does not exceed NMED’s authority or the WQCC’s authority under the WQA, then Amigos Bravos and GRIP provide the following reasons for their proposed “in the alternative” changes to NMED’s proposed amendment.

Statement of Reasons for “In the Alternative” Changes to NMED’s Proposed Amendment:

1. The term “discharge permit amendment” derives from 20.6.7 NMAC, the New Mexico “Copper Rule”. Section 20.6.7.9.C of the Copper Rule provides the following:

A permittee requesting a discharge permit amendment separate from a discharge permit renewal or modification shall remit with the request a discharge permit amendment fee of five hundred dollars (\$500). The permit amendment fee is not refundable and may not be applied toward future discharge permit applications or amendments.

Id. Fees assessed for discharge permit amendments should be consistent for all regulated entities. Copper Mines should not be the only regulated entities assessed a \$500 non-refundable fee for discharge permit amendment requests.

2. Only the WQCC has the authority to revise fees under the WQA, specifically NMSA 1978, Section 74-6-5(K).

Amigos Bravos’s & GRIP’s “In the Alternative” Changes to NMED’s Proposed Amendment:

In the alternative, if the WQCC determines that the addition of the term “discharge permit amendment” does not exceed NMED’s authority or the WQCC’s authority under the WQA, Amigos Bravos and GRIP propose the following changes to NMED’s amendment:

20.6.2.3114 FEES:

A. FEE AMOUNT AND SCHEDULE OF PAYMENT - Every facility submitting a discharge permit application for approval or renewal shall pay the permit fees specified in Table 1 of this section and shall pay a filing fee as specified in Table 2 of this section to the Water Quality Management Fund. Every facility submitting a request for temporary permission to discharge pursuant to Subsection B of Section 20.6.2.3106 NMAC, or financial assurance pursuant to Paragraph 11 of Subsection A of Section 20.6.2.3107 NMAC shall pay the fees specified in Table 2 of this section to the Water Quality Management Fund.

B. Facilities applying for discharge permits which are subsequently withdrawn or denied shall pay one-half of the permit fee at the time of denial or withdrawal.

C. Facilities requesting a discharge permit amendment shall remit with the request a discharge permit amendment fee of five hundred dollars (\$500). The permit amendment fee is not refundable and may not be applied toward future discharge permit applications or amendments.

~~C. D.~~ Every facility submitting an application for discharge permit modification will be assessed a filing fee plus one-half of the permit fee. Applications for both renewal and modification will pay the filing fee plus the permit fee

~~D. E.~~ If the secretary requires a discharge permit modification as a component of an enforcement action, the facility shall pay the applicable discharge permit modification fee. If the secretary requires a discharge permit modification outside the context of an enforcement action, the facility shall not be assessed a fee

~~E. F.~~ The secretary may waive or reduce fees for discharge permit modifications or renewals which require little or no cost for investigation or issuance.

~~F. G.~~ Facilities shall pay the filing fee at the time of discharge permit application. The filing fee is nonrefundable. The required permit fees may be paid in a single payment at the time of discharge permit approval or in equal installments over the term of the discharge permit. Installment payments shall be remitted yearly, with the first installment due on the date of discharge permit approval. Subsequent installment payments shall be remitted yearly thereafter. The discharge permit or discharge permit application review of any facility shall be suspended or terminated if the facility fails to submit an installment payment by its due date.

~~G. H.~~ Every three years beginning in 2004, the department shall review the fees for discharge permit amendments and fees specified in Table 1 and 2 of this section and shall provide a report to the commission. The ~~department~~ commission shall revise the fees as necessary in accordance with NMSA 1978, Section 74-6-5(~~J~~)(K), ~~NMSA 1978.~~

XI. 20.6.2.4103.F NMAC – NMED’s Proposal to Amend Alternative Abatement Standards

Statement of Position:

Amigos Bravos and GRIP support NMED’s proposed amendments to 20.6.2.4103.A-E NMAC. Amigos Bravos and GRIP oppose NMED’s proposed amendments to 20.6.2.4103.F NMAC and propose several changes for the following reasons.

Statement of Reasons for Changes to NMED’s Proposed Amendments:

1. 20.6.2.3103.F NMAC contradicts 20.6.2.3103.F(1) NMAC for the following reason.

NMED is proposing to add the following language to 20.6.2.4103.F NMAC: “If a responsible person *abating* water pollution pursuant to an approved abatement plan is unable to fully meet the abatement standards set forth in Subsections A, B and C of this section the responsible person may propose alternative abatement standards.” (Emphasis added). This language implies that a responsible person is currently abating pollution pursuant to an approved Stage 2 abatement plan. This language clearly contradicts NMED’s proposed language for 20.6.2.3103.F(1): “*At any time during or after the submission of a Stage 2 abatement plan*, the responsible person may file a petition seeking approval of alternative abatement standard(s)…” (Emphasis added). This language implies that a Stage 2 abatement plan has not yet been approved or implemented.

2. A responsible person should be required to implement Stage 2 abatement *before* being allowed to request an alternative abatement standard in order to make a clear showing that attaining abatement standard(s) is/are not feasible. To allow a polluter to bypass implementation of a Stage 2 abatement plan and request alternative abatement standards undermines the purpose of a Stage 2 abatement plan and 20.6.2.4103 NMAC, and renders meaningless human health standards for toxic pollutants being discharged to ground water.
3. Technical infeasibility should be demonstrated by a statistically valid extrapolation of the decrease of any water contaminant over the remainder of a twenty (20) year period with parametric statistics. Therefore, at a minimum, ten (10) data points should be provided to allow for substantially more sophisticated conclusions than could be provided with non-parametric statistics (or only eight (8) data points).

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendments:

Amigos Bravos and GRIP therefore propose the following changes to NMED's proposed amendments:

F. Alternative Abatement Standards: If a responsible person abating water pollution pursuant to an approved abatement plan is unable to fully meet the abatement standards set forth in Subsections A, B and C of this section the responsible person may propose alternative abatement standards.

(1) **At any time after the implementation of an approved Stage 2 abatement plan, ~~At any time after the submission of a Stage 2 abatement plan,~~ a responsible person may file a petition with the commission seeking approval of an alternative abatement standard based on compliance with the standard set forth in Subsections A, B and C of this section is technically infeasible, as demonstrated by a statistically valid extrapolation of the decrease in concentration of any water contaminant over the remainder of a twenty (20) year period, such that projected future reductions during that time would be less than 20 percent of the concentration at the time technical infeasibility is proposed. A statistically valid decrease cannot be demonstrated by fewer**

than ten (10) consecutive sampling events. Sampling events demonstrating a statistically valid decrease shall be collected with a minimum of ninety (90) days between sampling events, and shall not span a time period greater than four (4) years, and at least one of the following criteria:

(a) compliance with the standard set forth in Subsections A, B and C of this section is not feasible by the maximum use of commercially ~~accepted~~ available abatement technology;

(b) compliance with the standard set forth in Subsections A, B and C of this section is not feasible by the maximum use of technology within the economic capability of the responsible person; or

(c) there is no reasonable relationship between the economic and social costs and benefits of attainment of the standard set forth in Subsections A, B and C of this section; ~~or,~~

~~(d) compliance with the standard set forth in Subsections A, B and C of this section is technically infeasible, as demonstrated by a statistically valid extrapolation of the decrease in concentration of any water contaminant over the remainder of a twenty (20) year period, such that projected future reductions during that time would be less than 20 percent of the concentration at the time technical infeasibility is proposed. A statistically valid decrease cannot be demonstrated by fewer than eight (8) consecutive sampling events. Sampling events demonstrating a statistically valid decrease shall be collected with a minimum of ninety (90) days between sampling events, and shall not span a time period greater than four (4) years.~~

(2) A petition for alternative abatement standards shall specify, in addition to the information required by Subsection A of 20.6.2.1210 NMAC the following:

(a) the water contaminant for which the alternative abatement standard is proposed;

(b) the alternative abatement standard proposed;

(c) the three-dimensional body of water pollution for which approval is sought;

(d) a summary of all actions taken to abate water pollution to standards; and

(f) other information as deemed necessary, which may include a transport, fate and risk assessment in accordance with accepted methods.

(3) The commission may approve an alternative abatement standard if the petitioner demonstrates that:

(a) at least one of the criteria set forth in Paragraph 1 of Subsection F of this Section has been met;

(b) the proposed alternative abatement standard is technically achievable and cost-benefit justifiable; and

(c) compliance with the proposed alternative abatement standard will not create a present or future hazard to public health or undue damage to property.

(4) An alternative abatement standard shall only be granted after a public hearing, as required by NMSA 1978 (as amended by NMSA 1978, Section 74-6-17), Section 74-6-4(H) of the Water Quality Act.

(5) The commission shall review petitions for alternative abatement standards in accordance with the procedures for review of variance petitions provided in the commission's adjudicatory procedures, 20.1.3 NMAC.

XII. 20.6.2.4106.D NMAC – NMED's Proposal to Amend Stage 2 Abatement Plan Requirements

Statement of Position:

Amigos Bravos and GRIP oppose NMED's proposed amendments to 20.6.2.4106.D in their entirety for the following reasons.

Statement of Reasons for Changes to NMED's Proposed Amendments:

1. NMED has provided no rationale as to why regulated entities should be permitted to submit a Stage 2 abatement plan proposal at any time after approval by the Secretary of a final site investigation report prepared pursuant to Stage 1 of the abatement plan.
2. Removing the 120 day limit on when a regulated entity must submit a Stage 2 abatement plan proposal is a means to circumvent the requirement to obtain a variance.

Amigos Bravos's & GRIP's Changes to NMED's Proposed Amendments:

Amigos Bravos and GRIP therefore propose to delete NMED's proposed amendment as follows:

D. Stage 2 Abatement Plan: Any responsible person shall submit a Stage 2 abatement plan proposal to the secretary for approval within sixty (60) days~~[-, or up to one hundred and twenty (120) days for good cause shown,]~~ for up to one hundred and twenty (120) days for good cause shown] after approval by the secretary of the final site investigation report prepared pursuant to Stage 1 of the abatement plan. ~~The secretary may grant approval for an extension of time to submit a State 2 abatement plan for good cause shown.~~

XIII. Conclusion.

For the foregoing reasons, Amigos Bravos and GRIP request that the WQCC adopt Amigos Bravos's and GRIP's proposed changes to NMED's Petition to Amend 20.6.2 NMAC.

Dated: August 8, 2017



Jaimie Park
Douglas Meiklejohn
Eric Jantz
Jonathan Block
1405 Luisa St., Suite 5
Santa Fe, NM 87505
(505) 989-9022
Attorneys for Amigos Bravos & GRIP

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing Statement of Position With Statement of Reasons and Corrected Proposed Changes was served on August 8, 2017 via electronic mail to the following:

Ms. Pam Castaneda, Administrator
Water Quality Control Commission
Room N-2168, Runnels Building
1190 St. Francis Dr.
Santa Fe, NM 87505
Pam.Castaneda@state.nm.us

New Mexico Environment
Department
Office of General Counsel
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John Verheul
Lara.Katz@state.nm.us
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michael.l.casillo2.civ@mail.mil



NEW MEXICO ENVIRONMENT DEPARTMENT
INSPECTION OF PUBLIC RECORD REQUEST FORM

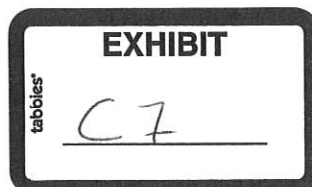
Please fill out the following information:

1. Date: July 25, 2017
2. Requestor's Name: Jaimie Park, New Mexico Environmental Law Center
3. Requestor's Address: 1405 Luisa Street, Suite 5, Santa Fe, NM 87505
4. Phone No.: (505) 989-9022
5. Email: jpark@nmelc.org
6. Company Being Represented: Amigos Bravos and Gila Resources Information Project ("GRIP")
7. Address: 1405 Luisa Street, Suite 5, Santa Fe, NM 87505
8. Document or File being requested to be reviewed or copied (please describe the records in sufficient detail to enable Department personnel to reasonably identify & locate the records:

I request that you inform me what documents are available within the scope of this request and when I can inspect those documents. I also request that you not make any copies without first informing me of the number of copies and the cost for the copying that are involved. Finally, I request that if you determine that any documents or portions of documents are exempt from disclosure you inform me of that and provide me with citations to the provisions in the Inspection of Public Records Act that indicate that the documents or portions of documents are exempt from disclosure, describe the type of document being withheld, and identify who sent the document being withheld and who received the document being withheld.

Records being requested:

1. The Environment Improvement Board's ("EIB") petition to adopt Regulation No. 5, Procedure for Requesting a Variance (date range 1967-1971) and EIB's associated direct and rebuttal testimony;
2. EIB's petition to adopt ground water regulations filed with the New Mexico Water Quality Control Commission ("WQCC") (date range 1974-1976), along with EIB's associated direct and rebuttal testimony;
3. Minutes of the WQCC meeting of December 14, 15, and 16, 1976 and minutes of the WQCC January 1977 meeting;



4. Any transcript or recording of the June 1976 four-day hearing held by the WQCC on EIB's proposed ground water regulations (this could be the "minutes of the WQCC meeting of December 14, 15, and 16, 1976 and one day in January 1977);
5. The WQCC's decision to adopt EIB's proposed ground water regulations (date range 1977);
6. EIB's petition to amend or adopt a new definition for "toxic pollutant", with associated direct and rebuttal testimony, and the WQCC's decision to adopt EIB's proposed definition in 1981;
7. EIB's petition to add eight organic chemicals to the ground water regulations Section 3103, with associated direct and rebuttal testimony, and the WQCC's decision to adopt EIB's proposed eight organic chemicals to the ground water regulations Section 3-103 in 1982;
8. EIB's petition to add twelve new numerical standards for organic chemicals to ground water standards, Section 3103, with associated direct and indirect testimony, and the WQCC's decision to adopt EIB's proposed twelve new numerical standards in 1986;
9. The New Mexico Environment Department's ("NMED")(or EIB's) petition to adopt discharge plan fees, with associated direct and rebuttal testimony, and the WQCC's decision to adopt discharge plan fees in 1991;
10. NMED's petition to adopt abatement regulations, Subpart IV of 20.6.2 NMAC, with associated direct and rebuttal testimony, and the WQCC's decision to adopt abatement regulations in 1995;
11. NMED's petition to add non-aqueous phase liquids to the list of ground water standards in Section 3103 of 20.6.2 NMAC, with associated direct and rebuttal testimony, and the WQCC's decision to add non-aqueous phase liquids to 3103;
12. NMED's petition to amend 20.6.2, Subpart III, to add the requirement for an "administrative record" as the basis for evaluation, and a new section 3110 and other procedural amendments, with direct and rebuttal testimony, and the WQCC's decision to adopt NMED's proposed amendments in 1996;
13. All NMED petitions to amend 20.6.2.7 NMAC with associated direct and rebuttal testimony, and subsequent WQCC decision on NMED's petition. Amendments were approved to this section by the WQCC in 2001, 2002, 2004, 2006 and 2014;
14. All EIB and NMED petitions to adopt or amend 20.6.2.1210 NMAC with associated direct and rebuttal testimony and subsequent WQCC decision. Adoption and amendments were approved to this section by the WQCC in 1968, 1970, 1972, 1981, 1996, and 2001;
15. All EIB and NMED petitions to adopt or amend 20.6.2.3103 NMAC with associated direct and rebuttal testimony and subsequent WQCC decision. Adoption and amendments were approved to this section by the WQCC in 1977, 1982, 1983, 1986, 1995, 2001, and 2004;
16. All EIB and NMED petitions to adopt or amend 20.6.2.3108 NMAC with associated direct and rebuttal testimony and subsequent WQCC decision. Adoption and amendments were approved to this section by the WQCC in 1977, 1987, 1995, 1996, 2001, 2002, and 2006;
17. All EIB and NMED petitions to adopt or amend 20.6.2.3114 NMAC with associated direct and rebuttal testimony and subsequent WQCC decision. Adoption and amendments were approved to this section by the WQCC in 1991, 1995, and 2001; and
18. All EIB and NMED petitions to adopt or amend 20.6.2.4103 NMAC with associated direct and rebuttal testimony and subsequent WQCC decision. Adoption and amendments were approved to this section by the WQCC in 1995, 1996, and 2001.

9. NMED Bureau where Document/File can be found (if known): Surface Water Quality Bureau, Ground Water Quality Bureau; all of these documents should already be readily available by NMED for use in the upcoming November 14, 2017 public hearing on NMED's Petition to Amend 20.6.2 NMAC.

/s/ Jaimie Park

Signature

The cost for copying by NMED is as indicated on Attachment A. Please send this request to:

Melissa Y. Mascareñas
Inspection of Public Records Officer
1190 St. Francis Drive, Ste. N-4050
Santa Fe, New Mexico 87505
fax: (505) 827-1628 or
email: melissa.mascarenas@state.nm.us

ATTACHMENT A

A. Copies of Paper Records: The Public Records Custodian may charge reasonable fees for copying public records, payable in advance, and, upon request, shall provide a receipt. NMSA 1978, § 14-2-9.B. Unless a different fee is otherwise prescribed by law or regulation, the following fees apply to producing copies of paper records.

(1) 8 ½" x 11" - \$0.25 per page

B. Audio tape reproduction: \$2.00 per tape if copied by the Department; if the Department does not have the capability to copy the tape with reasonable audio quality, the Department may charge the cost required to have the tape copied by an outside service.

C. Printed Copies of Records from Department Electronic Information Systems: Information contained in an electronic information system shall be disclosed in printed or typed format upon payment of a reasonable fee. NMSA 1978, §14-3-15.1.A. If an Inspection of Public Records Act request requires searching, manipulating, retrieving or reviewing data from an electronic information system, a fee shall be charged for the service. NMSA 1978, §14-3-15.1.F.

1. For requests resulting in less than 100 pages of records, the Department's reasonable fee shall be the copy cost set forth in Section IX.A. If the Department receives multiple requests from the same or related requestors, the Department may aggregate the requests and charge a fee under Section IX.C.2.

2. For requests of 100 or more pages of records, a reasonable fee shall be the actual staff salary multiplied by the staff time taken to complete the request plus the copy cost set forth in Section IX.A. For requests of 100 pages or more from information systems databases, the Department shall provide an estimate to the requestor and may require a down payment of the estimate before beginning to retrieve records. The Department may charge additional down payments as documents are retrieved and produced.

D. Electronic Format of Electronic Information: If an Inspection of Public Records Act request requires searching, manipulating, retrieving or reviewing data from an electronic information system, a fee shall be charged for the service. NMSA 1978, §14-3-15.1.F. The fee to produce information in electronic format is the actual staff salary multiplied by the staff time taken to complete the request.

E. Prints from digital images: 5" x 7" or 8" x 10" - \$15.00 (ea.).

ATTACHMENT B

New Mexico Environment Department Release of Public Information in Electronic Format

In accordance with the Public Records Act, NMSA 1978, Section 14-3-15.1(C), any person requesting of a public record from the New Mexico Environment Department in any electronic medium (e.g., spreadsheets, GIS layers, database extracts) or database agrees:

1. not to make unauthorized copies;
2. not to use the electronic information for any political or commercial purpose unless the purpose and use is approved in writing by the New Mexico Environment Department;
3. not to use the electronic information for solicitation or advertisement when it contains the name, address or telephone number of any person, unless such use is otherwise specifically authorized by law;
4. not to allow access to the electronic information by any other person unless the use is approved in writing by the New Mexico Environment Department; and
5. to pay a royalty or other consideration to the state of New Mexico as may be agreed upon by the New Mexico Environment Department.

If information contained in the electronic format is searched, manipulated, or retrieved or if an electronic copy is made for any private or nonpublic use, a fee shall be charged by the New Mexico Environment Department. NMSA 1978, §14-3-15.1.F.

Except as authorized by law or rule of the State Commission of Public Records, any person who reveals to any unauthorized personal information contained in a computer database or who uses or permits the unauthorized use or access to any computer database is guilty of a misdemeanor, and upon conviction the court shall sentence that person to jail for a definite term not to exceed one year or to payment of a fine not to exceed five thousand dollars (\$5,000) or both. That person shall not be employed by the state for a period of five years after the date of conviction. NMSA 1978, § 14-3-15.1(G).

In order to determine whether the information requested will be used for solicitation, advertisement, political or commercial purpose, please indicate how the information will be used:

These documents will be used to prepare comments on a draft DP for the Copper Flat Copper Mine and in anticipation of requesting a public hearing on a draft DP in this matter.

I, Jaimie Park (print name), have requested information in electronic format from the New Mexico Environment Department, and have read and certify that I comply with the conditions listed above.

/s/ Jaimie Park
Signature

For NMED Use Only

Electronic Information Requested: _____
Format (e.g. database, spreadsheet, map, other) _____
Bureau: _____ Date: _____
Name of Individual Releasing electronic Information: _____



NEW MEXICO ENVIRONMENT DEPARTMENT
INSPECTION OF PUBLIC RECORD REQUEST FORM

Please fill out the following information:

1. Date: August 7, 2017
2. Requestor's Name: Jaimie Park
3. Requestor's Address: 1405 Luisa Street, Ste. 5, Santa Fe, NM 87505
4. Phone No.: (505) 989-9022
5. Email: jpark@nmelc.org
6. Company Being Represented: New Mexico Environmental Law Center
7. Address: 1405 Luisa Street, Ste. 5, Santa Fe, NM 87505
8. Document or File being requested to be reviewed or copied (please describe the records in sufficient detail to enable Department personnel to reasonably identify & locate the records:

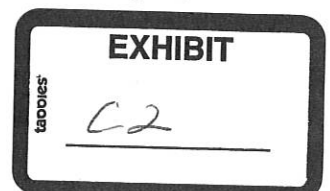
I request that you inform me what documents are available within the scope of this request and when I can inspect those documents. I also request that you not make any copies without first informing me of the number of copies and the cost for the copying that are involved. Finally, I request that if you determine that any documents or portions of documents are exempt from disclosure you inform me of that and provide me with citations to the provisions in the Inspection of Public Records Act that indicate that the documents or portions of documents are exempt from disclosure, describe the type of document being withheld, and identify who sent the document being withheld and who received the document being withheld.

The records that are requested are:

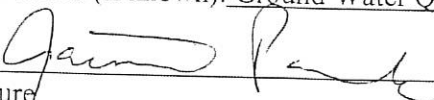
1. Chevron Environmental Management Company ("Chevron") April 27, 2016 letter requesting to amend Discharge Permit 1055 (DP-1055) and to revise the financial assurance;
2. DP-1055 and all amendments approved by NMED; and
3. Discharge permit modification applications submitted by Chevron for DP-1055.

For purposes of this request, the term "document" means any record in written, graphic, photographic, or other form kept or memorialized on paper, microfilm, microfiche, or electronic media; and includes each non-identical original or copy of a draft or final record, whether the original or copy is not identical because of notes on the original or copy or otherwise.

For purposes of this request, the term "pertaining to" means addressing, concerning, focusing on, mentioning, relating to, or relevant to in any manner.



9. NMED Bureau where Document/File can be found (if known): Ground Water Quality Bureau.


Signature

Melissa Y. Mascareñas
Inspection of Public Records Officer
1190 St. Francis Drive, Ste. N-4050
Santa Fe, New Mexico 87505
fax: (505) 827-1628 or
email: melissa.mascareñas@state.nm.us

ATTACHMENT A

ATTACHMENT B

**New Mexico Environment Department
Release of Public Information in Electronic Format**

In accordance with the Public Records Act, NMSA 1978, Section 14-3-15.1(C), any person requesting of a public record from the New Mexico Environment Department in any electronic medium (e.g., spreadsheets, GIS layers, database extracts) or database agrees:

1. not to make unauthorized copies;
2. not to use the electronic information for any political or commercial purpose unless the purpose and use is approved in writing by the New Mexico Environment Department;
3. not to use the electronic information for solicitation or advertisement when it contains the name, address or telephone number of any person, unless such use is otherwise specifically authorized by law;
4. not to allow access to the electronic information by any other person unless the use is approved in writing by the New Mexico Environment Department; and
5. to pay a royalty or other consideration to the state of New Mexico as may be agreed upon by the New Mexico Environment Department.

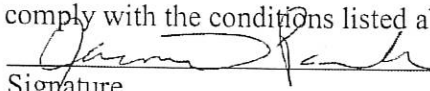
If information contained in the electronic format is searched, manipulated, or retrieved or if an electronic copy is made for any private or nonpublic use, a fee shall be charged by the New Mexico Environment Department. NMSA 1978, §14-3-15.1.F.

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In order to determine whether the information requested will be used for solicitation, advertisement, political or commercial purpose, please indicate how the information will be used:

For use in NMED's Petition to Amend 20.6.2 NMAC public hearing scheduled in November 2017.

I, Jaimie Park, have requested information in electronic format from the New Mexico Environment Department, and have read and certify that I comply with the conditions listed above.


Signature

For NMED Use Only

Electronic Information Requested: _____
Format (e.g. database, spreadsheet, map, other) _____
Bureau: _____ Date: _____
Name of Individual Releasing electronic Information: _____



NEW MEXICO ENVIRONMENT DEPARTMENT
INSPECTION OF PUBLIC RECORD REQUEST FORM

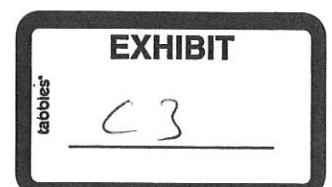
Please fill out the following information:

1. Date: August 7, 2017
2. Requestor's Name: Jaimie Park
3. Requestor's Address: 1405 Luisa Street, Ste. 5, Santa Fe, NM 87505
4. Phone No.: (505) 989-9022
5. Email: jpark@nmelc.org
6. Company Being Represented: New Mexico Environmental Law Center
7. Address: 1405 Luisa Street, Ste. 5, Santa Fe, NM 87505
8. Document or File being requested to be reviewed or copied (please describe the records in sufficient detail to enable Department personnel to reasonably identify & locate the records:

I request that you inform me what documents are available within the scope of this request and when I can inspect those documents. I also request that you not make any copies without first informing me of the number of copies and the cost for the copying that are involved. Finally, I request that if you determine that any documents or portions of documents are exempt from disclosure you inform me of that and provide me with citations to the provisions in the Inspection of Public Records Act that indicate that the documents or portions of documents are exempt from disclosure, describe the type of document being withheld, and identify who sent the document being withheld and who received the document being withheld.

The records that are requested are:

1. All discharge permit amendment requests and associated NMED approval or denial for the past ten (10) years (January 1, 2007 through date of this IPRA request) for the following Dairy Industry discharge permits:
 - a. DP-791
 - b. DP-1799
 - c. DP-423
 - d. DP-671
 - e. DP-833
 - f. DP-1323
 - g. DP-340
 - h. DP-1844
 - i. DP-1320
 - j. DP-227




k. DP-941
l. DP-718
m. DP-1277
n. DP-606
o. DP-1111
p. DP-738
q. DP-1008
r. DP-1136
s. DP-765
t. DP-1332
u. DP-163
v. DP-1131
w. DP-706
x. DP-878
y. DP-1803
z. DP-934
aa. DP-1508
bb. DP-1003
cc. DP-921
dd. DP-707
ee. DP-1004
ff. DP-1810

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For purposes of this request, the term "pertaining to" means addressing, concerning, focusing on, mentioning, relating to, or relevant to in any manner.

9. NMED Bureau where Document/File can be found (if known): Ground Water Quality Bureau.



Signature

Melissa Y. Mascareñas
Inspection of Public Records Officer
1190 St. Francis Drive, Ste. N-4050
Santa Fe, New Mexico 87505
fax: (505) 827-1628 or
email: melissa.mascarenas@state.nm.us

ATTACHMENT A

ATTACHMENT B

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Release of Public Information in Electronic Format**

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5. to pay a royalty or other consideration to the state of New Mexico as may be agreed upon by the New Mexico Environment Department.

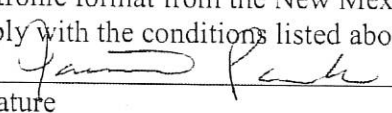
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In order to determine whether the information requested will be used for solicitation, advertisement, political or commercial purpose, please indicate how the information will be used:

For use in NMED's Petition to Amend 20.6.2 NMAC public hearing scheduled in November 2017.

I, Jaimie Park, have requested information in electronic format from the New Mexico Environment Department, and have read and certify that I comply with the conditions listed above.


Signature

For NMED Use Only

Electronic Information Requested: _____
Format (e.g. database, spreadsheet, map, other) _____
Bureau: _____ Date: _____
Name of Individual Releasing electronic Information: _____



NEW MEXICO ENVIRONMENT DEPARTMENT
INSPECTION OF PUBLIC RECORD REQUEST FORM

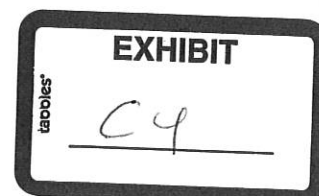
Please fill out the following information:

1. Date: August 7, 2017
2. Requestor's Name: Jaimie Park
3. Requestor's Address: 1405 Luisa Street, Ste. 5, Santa Fe, NM 87505
4. Phone No.: (505) 989-9022
5. Email: jpark@nmelc.org
6. Company Being Represented: New Mexico Environmental Law Center
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The records that are requested are:

1. All discharge permit amendment requests and associated NMED approval or denial for the past ten (10) years (January 1, 2007 through date of this IPRA request) for the following Mining Industry discharge permits:
 - a. DP-1399
 - b. DP-1568
 - c. DP-591
 - d. DP-526
 - e. DP-459
 - f. DP-493
 - g. DP-213
 - h. DP-376
 - i. DP-214
 - j. DP-1340



k. DP-484
l. DP-166
m. DP-383
n. DP-670
o. DP-363
p. DP-396
q. DP-496
r. DP-435
s. DP-1341
t. DP-455
u. DP-896
v. DP-1236
w. DP-286
x. DP-1403
y. DP-1056
z. DP-181
aa. DP-615
bb. DP-71
cc. DP-169
dd. DP-67
ee. DP-362
ff. DP-55
gg. DP-1055
hh. DP-1539
ii. DP-933
jj. DP-314
kk. DP-200
ll. DP-61
mm. DP-148
nn. DP-1234
oo. DP-1681
pp. DP-1651
qq. DP-1717
rr. DP-1754

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9. NMED Bureau where Document/File can be found (if known): Ground Water Quality Bureau.



Signature

Melissa Y. Mascareñas
Inspection of Public Records Officer
1190 St. Francis Drive, Ste. N-4050
Santa Fe, New Mexico 87505
fax: (505) 827-1628 or
email: melissa.mascareñas@state.nm.us

ATTACHMENT A

ATTACHMENT B

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2. not to use the electronic information for any political or commercial purpose unless the purpose and use is approved in writing by the New Mexico Environment Department;
3. not to use the electronic information for solicitation or advertisement when it contains the name, address or telephone number of any person, unless such use is otherwise specifically authorized by law;
4. not to allow access to the electronic information by any other person unless the use is approved in writing by the New Mexico Environment Department; and
5. to pay a royalty or other consideration to the state of New Mexico as may be agreed upon by the New Mexico Environment Department.

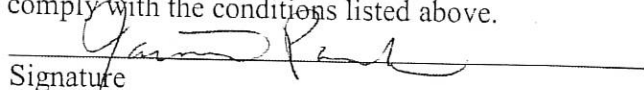
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In order to determine whether the information requested will be used for solicitation, advertisement, political or commercial purpose, please indicate how the information will be used:

For use in NMED's Petition to Amend 20.6.2 NMAC public hearing scheduled in November 2017.

I, Jaimie Park, have requested information in electronic format from the New Mexico Environment Department, and have read and certify that I comply with the conditions listed above.


Signature

For NMED Use Only

Electronic Information Requested: _____

Format (e.g. database, spreadsheet, map, other) _____

Bureau: _____ Date: _____

Name of Individual Releasing electronic Information: _____



NEW MEXICO ENVIRONMENT DEPARTMENT
INSPECTION OF PUBLIC RECORD REQUEST FORM

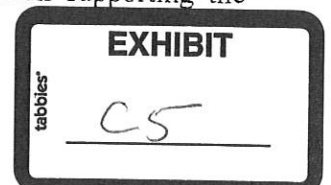
Please fill out the following information:

1. Date: August 8, 2017
2. Requestor's Name: Jaimie Park
3. Requestor's Address: 1405 Luisa Street, Ste. 5, Santa Fe, NM 87505
4. Phone No.: (505) 989-9022
5. Email: jpark@nmelc.org
6. Company Being Represented: New Mexico Environmental Law Center
7. Address: 1405 Luisa Street, Ste. 5, Santa Fe, NM 87505
8. Document or File being requested to be reviewed or copied (please describe the records in sufficient detail to enable Department personnel to reasonably identify & locate the records:

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The records that are requested are:

1. WQCC No. 16-06(A) Petition for Alternative Abatement Standards for the former St. Anthony Mine, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
2. WQCC No. 12-12(V) Petition for Variance, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
3. WQCC No. 12-13(V) Petition for Variance, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
4. WQCC No. 13-01(V) Petition for Variance, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
5. WQCC No. 13-02(V) Petition for Variance, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
6. WQCC No. 12-04(V) Petition for Variance, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;




7. WQCC No. 12-05(V) Petition for Variance, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
8. WQCC No. 12-08(V) Petition for Variance, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
9. WQCC No. 12-11(V) Petition for Variance, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
10. WQCC No. 11-03(V) Petition for Variance, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
11. WQCC No. 02-24(A) Petition for Alternative Abatement of Standards for L-Bar Uranium Mill Tailings Site, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
12. Petition for Alternative Abatement of Standards for Cunningham Hill Mine, filed in 2001, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order;
13. Petition for Alternative Abatement of Standards for LAC Minerals, Inc., filed in 1999, as well as any recommendation supporting the petition filed by NMED, and associated WQCC final decision and order, and NMED's recommendation supporting LAC's petition filed on September 13, 1999; and
14. WQCC No. 99-02(A) Petition for Alternative Abatement of Standards for Cunningham Hill Mine Reclamation Project and associated WQCC final decision and order, as well as any recommendation supporting the petition filed by NMED (this may be the same as Item # 12).

For purposes of this request, the term "document" means any record in written, graphic, photographic, or other form kept or memorialized on paper, microfilm, microfiche, or electronic media; and includes each non-identical original or copy of a draft or final record, whether the original or copy is not identical because of notes on the original or copy or otherwise.

For purposes of this request, the term "pertaining to" means addressing, concerning, focusing on, mentioning, relating to, or relevant to in any manner.

9. NMED Bureau where Document/File can be found (if known): The Water Quality Control Commission, Ground Water Quality Bureau.


Signature

Melissa Y. Mascareñas
Inspection of Public Records Officer
1190 St. Francis Drive, Ste. N-4050
Santa Fe, New Mexico 87505
fax: (505) 827-1628 or
email: melissa.mascarenas@state.nm.us

ATTACHMENT A

ATTACHMENT B

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Release of Public Information in Electronic Format**

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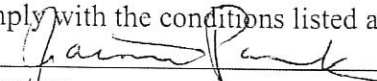
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Signature

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Electronic Information Requested: _____
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Bureau: _____ Date: _____
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NEW MEXICO ENVIRONMENT DEPARTMENT
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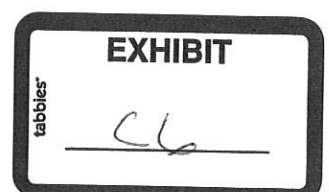
Please fill out the following information:

1. Date: August 29, 2017
2. Requestor's Name: Jaimie Park
3. Requestor's Address: 1405 Luisa Street, Ste. 5, Santa Fe, NM 87505
4. Phone No.: (505) 989-9022
5. Email: jpark@nmelc.org
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The records that are requested are:

1. Discharge permit amendment requests, approvals and denials for the following discharge permits:
 - a. DP-1468
 - b. DP-1206
 - c. DP-1127
 - d. DP-1446
 - e. DP-1479
 - f. DP-1770
 - g. DP-1132
 - h. DP-1589
 - i. DP-1793
 - j. DP-1835
 - k. DP-857




1. DP-281

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Signature

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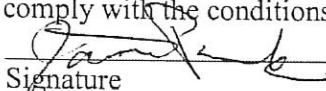
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I, Jaimie Park, have requested information in electronic format from the New Mexico Environment Department, and have read and certify that I comply with the conditions listed above.


Signature

For NMED Use Only

Electronic Information Requested: _____
Format (e.g. database, spreadsheet, map, other) _____
Bureau: _____ Date: _____
Name of Individual Releasing electronic Information: _____

E

NMED Discharge Permit Amendments 2017-2006 Organized by Date Approved

| | A | B | C | D | E | F | G |
|----|------|------------|------------|--------------------------------|---|------------|------------|
| 35 | 71 | 12/12/2013 | | Rio Algom Mining | aquifer' dried up since leaking pond empty | Cibola | 12/1/2003 |
| 36 | 455 | 12/9/2013 | 7/23/2013 | FM Tyrone - Gettysburg Pit | remove monitoring requirements | Grant | 8/17/2010 |
| 37 | 455 | 12/6/2013 | 11/20/2013 | FM Tyrone - Savannah Pit | Increase max op levels PLS in 6A pond | Grant | 8/17/2010 |
| 38 | 591 | 11/22/2013 | 8/27/2013 | FM Chino Mines - Lampbright | new equip wash pad fast fuel dock | Grant | 9/1/2006 |
| 39 | 526 | 11/22/2013 | 8/30/2013 | FM Chino Mines | new truck wash w/oil recycle | Grant | 10/3/2006 |
| 40 | 526 | 10/17/2013 | 10/1/2013 | FM Chino Mines - Whitewater | relocate pipelines amend 08-06-13 amend | Grant | 10/3/2006 |
| 41 | 933 | 9/6/2013 | 11/19/2012 | FM Chino Mines | stage cover material on STS2 Stockpile | Grant/Luna | 2/24/2003 |
| 42 | 526 | 8/6/2013 | 6/10/2013 | FM Chino Mines - Whitewater | relocate 5 pipelines 30 inch dia PLS | Grant | 10/3/2006 |
| 43 | 166 | 5/16/2013 | 5/1/2013 | FM Tyrone Mine | 25 acre haul road to 4B leach stockpile | Grant | 5/27/2005 |
| 44 | 1236 | 5/8/2013 | 2/13/2013 | FM Tyrone Mine - Little Rock | amend prior amend to add sump | Grant | 12/27/2000 |
| 45 | 1236 | 4/19/2013 | 2/13/2013 | FM Tyrone Mine - Little Rock | pit dewatering facility | Grant | 12/27/2000 |
| 46 | 1341 | 11/26/2012 | 6/28/2012 | FM Tyrone Mine - Warm Spring | Financial assurance | | |
| 47 | 435 | 11/8/2012 | 6/7/2012 | FM Tyrone Mine | Construct PLS Collection well | Grant | 11/7/2006 |
| 48 | 1341 | 10/22/2012 | 3/13/2012 | FM Tyrone Mine | upward mobility study - Munk defense | Grant | 10/15/2003 |
| 49 | 933 | 9/25/2012 | 8/29/2012 | Chevron Questa | discharge to unlined arroyo impoundment | Taos | 2/29/2008 |
| 50 | 1681 | 6/27/2012 | 12/22/2011 | Intrepid Potash | incorporate design from feb 2012 EIS | Eddy | 7/12/2010 |
| 51 | 1568 | 6/22/2012 | 5/18/2012 | FM Chino Mines - multi DPs | 1.5 MGD dust suppression | Grant | multi |
| 52 | 181 | 3/16/2012 | 2/20/2012 | FM Cobre Mining | new pipeline cross 2 ephemeral streams | Grant | 3/2/2007 |
| 53 | 591 | 1/12/2012 | 12/20/2011 | FM Chino Mines | overburden fill in five areas | Grant | 9/1/2006 |
| 54 | 591 | 1/17/2012 | 1/9/2012 | FM Chino | reroute Southside PLS pipeline | Grant | 9/1/2006 |
| 55 | 1340 | 12/2/2011 | 11/28/2011 | FM Chino Mines | construct STS2 Stockpile | Grant | |
| 56 | 455 | 11/28/2011 | 10/19/2011 | FM Tyrone Mine | construct PLS booster station lined pond | Grant | 8/17/2010 |
| 57 | 148 | 8/8/2011 | | Sierra Corp - Georgetown Mill | decrease WQ parameters | | 9/29/2008 |
| 58 | 166 | 7/28/2011 | 7/18/2011 | FM Tyrone - multi DPs | upward mobility study - Munk defense | Luna | multi |
| 59 | 1234 | 3/10/2011 | 5/27/2010 | American Minerals - Deming | reduce monitoring | | 9/19/2008 |
| 60 | 933 | 02-29-11 | 7/28/2010 | Chevron Questa | increase 9 MGD dust suppression | Taos | 2/29/2008 |
| 61 | 213 | 2/28/2011 | 1/20/2011 | FM Chino Mines | replace aging pipeline to prevent spills | Grant | 6/16/2005 |
| 62 | 1056 | 2/28/2011 | 12/10/2010 | FM Cobre Mining | remove organic parameters | Grant | 9/19/2008 |
| 63 | 181 | 2/25/2011 | 2/7/2011 | FM Cobre Mining | install horizontal drains at magnetite pond | Grant | 3/2/2007 |
| 64 | 376 | 2/4/2011 | 1/6/2011 | FM Chino Mines | construct pipeline to move stormwater | Grant | 6/17/2010 |
| 65 | 1651 | 1/14/2011 | 1/12/2011 | Lordsburg Mining - Banner Mill | addt'l chemicals in flotation | Hidalgo | 11/16/2009 |
| 66 | 526 | 11/24/2010 | 11/23/2010 | FM Chino Mines | addt'l Res 7 dredged sediments to Res 7 | Grant | 10/3/2006 |
| 67 | 526 | 11/24/2010 | 11/23/2010 | FM Chino Mines | aging pipeline discharge 3000 gpm raffinate | Grant | 10/3/2006 |
| 68 | 166 | 9/29/2010 | 9/22/2010 | FM Tyrone Mine | install sump to dewater main pit | | |

NMED Discharge Permit Amendments 2017-2006 Organized by Date Approved

| | A | B | C | D | E | F | G |
|----|------|------------|------------|-----------------------------|---|--------|------------|
| 69 | 484 | 9/1/2010 | 8/26/2010 | FM Chino Mines | combine domestic and mining wastewater | Grant | 1/24/2005 |
| 70 | 933 | 5/17/2010 | 4/23/2010 | Chevron Questa | financial assurance for pilot solar tech | | 2/29/2008 |
| 71 | 376 | 5/5/2010 | 5/3/2010 | FM Chino Mines - Lampbright | construct extension to un-named sump | Grant | 5/14/2009 |
| 72 | 455 | 3/1/2010 | 2/26/2010 | FM Tyrone Mine | PLS collection sump for seepage prob | Grant | 12/13/2004 |
| 73 | 181 | 2/5/2010 | 11/2/2009 | FM Cobre Mining | install dust suppression to meet air permit | Grant | 3/2/2007 |
| 74 | 166 | 2/2/2010 | 1/25/2010 | FM Tyrone Mine | construct PLS collection lined pond | Grant | 5/27/2005 |
| 75 | 526 | 1/26/2010 | 12/17/2009 | FM Chino Mines | dredged sed from Res7 waive analysis | Grant | 10/3/2006 |
| 76 | 1341 | 1/25/2010 | 12/9/2009 | FM Tyrone Mine | Financial assurance | Grant | 4/8/2003 |
| 77 | 455 | 12/11/2009 | 10/2/2009 | FM Tyrone Mine | replace failed PLS conveyance | Grant | 12/13/2004 |
| 78 | 933 | 12/3/2009 | 11/17/2009 | Chevron Questa | photovoltaic solar tech facility | Taos | 2/29/2008 |
| 79 | 166 | 8/26/2009 | 8/26/2009 | FM Tyrone | transfer pit lake sludge 150 feet | Grant | 5/27/2005 |
| 80 | 314 | 3/27/2009 | 1/6/2009 | St Cloud Mining | change report submittal dates | Sierra | |
| 81 | 181 | 12/31/2008 | 5/29/2008 | FM Cobre Mining | nomenclature seeps, ponds and wells | Grant | |
| 82 | 526 | 10/28/2008 | 10/20/2008 | FM Chino Mines | Waste rock from Cobre to W Stockpile | Grant | 12/10/2004 |
| 83 | 214 | 10/20/2008 | 9/23/2008 | FM Chino Mines - multi DPs | store Axiflo Lake liquids in tailing pond 7 | Grant | |
| 84 | 1341 | 10/2/2008 | 9/22/2007 | FM Tyrone Mine | monitoring network compromised | Grant | 4/8/2003 |
| 85 | 376 | 8/11/2008 | 6/22/2007 | FM Chino Mines - Lampbright | stormwater mgmt and sampling | Grant | 5/14/2004 |
| 86 | 455 | 5/15/2008 | 5/8/2008 | FM Tyrone | pit lake levels and monitoring well levels | Grant | 12/13/2004 |
| 87 | 526 | 5/9/2008 | 5/6/2008 | FM Chino Mines - multi DPs | 75,000 tons copper material on S Stockpile | Grant | 10/3/2006 |
| 88 | 591 | 4/14/2008 | 3/11/2008 | FM Chino Mine | raise op level in Res 7 too much sediment | Grant | 9/1/2006 |
| 89 | 376 | 6/14/2007 | 1/11/2006 | FM Chino Mines - Lampbright | leach pile and waste rock facility | Grant | 5/14/2004 |
| 90 | 455 | 2/9/2007 | 1/19/2007 | FM Tyrone Mine - Gettysburg | reduce monitoring keep on site | Grant | 12/13/2004 |
| 91 | 670 | 2/8/2007 | 2/22/2006 | FM Tyrone Mine - Savannah | denied - recommend permit mod | | 12/13/2004 |
| 92 | 383 | 1/26/2007 | 12/9/2006 | FM Tyrone Mine | monitoring frequency keep onsite | | 1/11/2005 |
| 93 | 1340 | 5/9/2006 | | FM Chino Mines | Financial assurance | Luna | 2/24/2003 |

| | A | B | C | D | E | F | G |
|----|------|------------|------------|-------------------------------|---|----------|-------------|
| | DP # | Approved | Submitted | Facility name | Permit Amendment | County | Last Permit |
| 1 | | | | | | | |
| 2 | 61 | 11/13/2014 | | Rio Grande Res Mt Taylor Mine | amending Stage 2 abatement plan | Cibola | 5/2/2011 |
| 3 | 71 | 8/11/2015 | | Rio Algom Mining | 4th qtr to be annual report (prev am) | McKinley | 12/1/2003 |
| 4 | 71 | 12/12/2013 | | Rio Algom Mining | aquifer' dried up since leaking pond empty | Cibola | 12/1/2003 |
| 5 | 148 | 8/8/2011 | | Sierra Corp - Georgetown Mill | decrease WQ parameters | | 9/29/2008 |
| 6 | 166 | 2/1/2016 | 12/1/2015 | FM Tyrone Mine | double H2SO4 concn | Grant | 5/27/2005 |
| 7 | 166 | 5/16/2013 | 5/1/2013 | FM Tyrone Mine | 25 acre haul road to 4B leach stockpile | Grant | 5/27/2005 |
| 8 | 166 | 7/28/2011 | 7/18/2011 | FM Tyrone - multi DPs | upward mobility study - Munk defense | | |
| 9 | 166 | 9/29/2010 | 9/22/2010 | FM Tyrone Mine | install sump to dewater main pit | | |
| 10 | 166 | 2/2/2010 | 1/25/2010 | FM Tyrone Mine | construct PLS collection lined pond | Grant | 5/27/2005 |
| 11 | 166 | 8/26/2009 | 8/26/2009 | FM Tyrone | transfer pit lake sludge 150 feet | Grant | 5/27/2005 |
| 12 | 181 | 2/5/2015 | 1/13/2015 | FM Cobre Mining - multi DPs | abandon wells under new haul road | Grant | 3/2/2007 |
| 13 | 181 | 3/16/2012 | 2/20/2012 | FM Cobre Mining | new pipeline cross 2 ephemeral streams | Grant | 3/2/2007 |
| 14 | 181 | 2/25/2011 | 2/7/2011 | FM Cobre Mining | install horizontal drains at magnetite pond | Grant | 3/2/2007 |
| 15 | 181 | 2/5/2010 | 11/2/2009 | FM Cobre Mining | install dust suppression to meet air permit | Grant | 3/2/2007 |
| 16 | 181 | 12/31/2008 | 5/29/2008 | FM Cobre Mining | nomenclature seeps, ponds and wells | Grant | 3/2/2007 |
| 17 | 200 | 12/30/2014 | 12/15/2015 | Homestake Mining | reporting requirements | | |
| 18 | 213 | 12/5/2016 | 11/7/2016 | FM Chino Mines | Domestic WW in Res 4A | Cibola | 9/18/2014 |
| 19 | 213 | 2/28/2011 | 1/20/2011 | FM Chino Mines | replace aging pipeline to prevent spills | Grant | 6/16/2005 |
| 20 | 214 | 10/20/2008 | 9/23/2008 | FM Chino Mines - multi DPs | store Axiflo Lake liquids in tailing pond 7 | Grant | 6/16/2005 |
| 21 | 314 | 3/27/2009 | 1/6/2009 | St Cloud Mining | change report submittal dates | Sierra | |
| 22 | 376 | 4/28/2015 | 3/24/2015 | FM Chino Mines - multi DPs | 1.5 to 2.0 MGD dust suppression | Grant | multi |
| 23 | 376 | 2/24/2014 | 11/19/2012 | FM Chino Mines - Lampbright | alternate PLS pipeline 16,000 gpm | Grant | 6/17/2010 |
| 24 | 376 | 1/24/2014 | 12/23/2013 | FM Chino Mines - Lampbright | 38,000 gal sulfuric acid tank | Grant | 6/17/2010 |
| 25 | 376 | 2/4/2011 | 1/6/2011 | FM Chino Mines | construct pipeline to move stormwater | Grant | 6/17/2010 |
| 26 | 376 | 5/5/2010 | 5/3/2010 | FM Chino Mines - Lampbright | construct extension to un-named sump | Grant | 5/14/2009 |
| 27 | 376 | 8/11/2008 | 6/22/2007 | FM Chino Mines - Lampbright | stormwater mgmt and sampling | Grant | 5/14/2004 |
| 28 | 376 | 6/14/2007 | 1/11/2006 | FM Chino Mines - Lampbright | leach pile and waste rock facility | Grant | 5/14/2004 |
| 29 | 383 | 1/26/2007 | 12/9/2006 | FM Tyrone Mine | monitoring frequency keep onsite | | 1/11/2005 |
| 30 | 435 | 6/6/2014 | 5/6/2014 | FM Tyrone | Expanded 9A stockpile 60 acres | Grant | 11/7/2006 |
| 31 | 435 | 11/8/2012 | 6/7/2012 | FM Tyrone Mine | Construct PLS Collection well | Grant | 11/7/2006 |
| 32 | 455 | 10/21/2014 | 9/25/2014 | FM Tyrone Gettysburg pit | construct 56 mil ton waste rock stockpile | Grant | 8/17/2010 |
| 33 | 455 | 12/9/2013 | 7/23/2013 | FM Tyrone - Gettysburg Pit | remove monitoring requirements | Grant | 8/17/2010 |
| 34 | 455 | 12/6/2013 | 11/20/2013 | FM Tyrone - Savannah Pit | Increase max op levels PLS in 6A pond | Grant | 8/17/2010 |
| 35 | 455 | 11/28/2011 | 10/19/2011 | FM Tyrone Mine | construct PLS booster station lined pond | Grant | 8/17/2010 |

NMED Discharge Permit Amendments 2017-2006 Organized by DP#

| | A | B | C | D | E | F | G |
|----|-----|------------|------------|-----------------------------|---|------------|------------|
| 36 | 455 | 3/1/2010 | 2/26/2010 | FM Tyrone Mine | PLS collection sump for seepage prob | Grant | 12/13/2004 |
| 37 | 455 | 12/11/2009 | 10/2/2009 | FM Tyrone Mine | replace failed PLS conveyance | Grant | 12/13/2004 |
| 38 | 455 | 5/15/2008 | 5/8/2008 | FM Tyrone | pit lake levels and monitoring well levels | Grant | 12/13/2004 |
| 39 | 455 | 2/9/2007 | 1/19/2007 | FM Tyrone Mine - Gettysburg | reduce monitoring keep on site | Grant | 12/13/2004 |
| 40 | 459 | 10/10/2014 | 9/25/2014 | FM Chino Mines | temp staging oxide ore 30 acres | Grant | 7/10/2011 |
| 41 | 484 | 9/1/2010 | 8/26/2010 | FM Chino Mines | combine domestic and mining wastewater | Grant | 1/24/2005 |
| 42 | 526 | 6/8/2016 | 5/19/2016 | FM Chino Lee Hill | 4 stormwater ponds and pipeline (prev am) | Grant | 10/3/2006 |
| 43 | 526 | 11/23/2015 | 7/17/2015 | FM Chino Mines | Pipe contaminated stormwater | Grant | 10/3/2006 |
| 44 | 526 | 5/5/2015 | 3/12/2015 | FM Chino Mines | 22 acres of waste rock | Grant | 10/3/2006 |
| 45 | 526 | 3/27/2014 | 2/21/2014 | FM Chino Mines | relocation of Frog Pond 1.65 mil gal cap | Grant | 10/3/2006 |
| 46 | 526 | 11/22/2013 | 8/30/2013 | FM Chino Mines | new truck wash w/oil recycle | Grant | 10/3/2006 |
| 47 | 526 | 10/17/2013 | 10/1/2013 | FM Chino Mines - Whitewater | relocate pipelines amend 08-06-13 amend | Grant | 10/3/2006 |
| 48 | 526 | 8/6/2013 | 6/10/2013 | FM Chino Mines - Whitewater | relocate 5 pipelines 30 inch dia PLS | Grant | 10/3/2006 |
| 49 | 526 | 11/24/2010 | 11/23/2010 | FM Chino Mines | addt'l Res 7 dredged sediments to Res 7 | Grant | 10/3/2006 |
| 50 | 526 | 11/24/2010 | 11/23/2010 | FM Chino Mines | aging pipeline discharge 3000 gpm raffinate | Grant | 10/3/2006 |
| 51 | 526 | 1/26/2010 | 12/17/2009 | FM Chino Mines | dredged sed from Res7 waive analysis | Grant | 10/3/2006 |
| 52 | 526 | 10/28/2008 | 10/20/2008 | FM Chino Mines | Waste rock from Cobre to W Stockpile | Grant | 12/10/2004 |
| 53 | 526 | 5/9/2008 | 5/6/2008 | FM Chino Mines - multi DPs | 75,000 tons copper material on S Stockpile | Grant | 10/3/2006 |
| 54 | 591 | 11/22/2013 | 8/27/2013 | FM Chino Mines - Lampbright | new equip wash pad fast fuel dock | Grant | 9/1/2006 |
| 55 | 591 | 1/12/2012 | 12/20/2011 | FM Chino Mines | overburden fill in five areas | Grant | 9/1/2006 |
| 56 | 591 | 1/17/2012 | 1/9/2012 | FM Chino | reroute Southside PLS pipeline | Grant | 9/1/2006 |
| 57 | 591 | 4/14/2008 | 3/11/2008 | FM Chino Mine | raise op level in Res 7 too much sediment | Grant | 9/1/2006 |
| 58 | 670 | 2/8/2007 | 2/22/2006 | FM Tyrone Mine - Savannah | denied - recommend permit mod | Grant | 12/13/2004 |
| 59 | 933 | 5/6/2016 | 4/27/2016 | Chevron | Financial assurance | Taos | 2/29/2008 |
| 60 | 933 | 3/30/2015 | 2/14/2015 | Chevron Questa | remove monitoring requirements | Taos | 2/29/2008 |
| 61 | 933 | 2/7/2014 | 1/28/2014 | Chevron Questa | disposal of drilling fluids and cuttings | Taos | 2/29/2008 |
| 62 | 933 | 9/6/2013 | 11/19/2012 | FM Chino Mines | stage cover material on STS2 Stockpile | Grant/Luna | 2/24/2003 |
| 63 | 933 | 9/25/2012 | 8/29/2012 | Chevron Questa | discharge to unlined arroyo impoundment | Taos | 2/29/2008 |
| 64 | 933 | 02-29-11 | 7/28/2010 | Chevron Questa | increase 9 MGD dust suppression | Taos | 2/29/2008 |
| 65 | 933 | 5/17/2010 | 4/23/2010 | Chevron Questa | financial assurance for pilot solar tech | Taos | 2/29/2008 |

NMED Discharge Permit Amendments 2017-2006 Organized by DP#

| | A | B | C | D | E | F | G |
|----|------|------------|------------|--------------------------------|---|------------|------------|
| 66 | 933 | 12/3/2009 | 11/17/2009 | Chevron Questa | photovoltaic solar tech facility | Taos | 2/29/2008 |
| 67 | 1056 | 2/28/2011 | 12/10/2010 | FM Cobre Mining | remove organic parameters | Grant | 9/19/2008 |
| 68 | 1234 | 3/10/2011 | 5/27/2010 | American Minerals - Deming | reduce monitoring | Luna | 9/19/2008 |
| 69 | 1236 | 5/13/2015 | 5/6/2015 | FM Tyrone - multi DPs | Pit water wash trucks & dust suppression | Grant | multi |
| 70 | 1236 | 5/8/2015 | 2/13/2015 | FM Chino Mines | construct new sediment sump (prev am) | Grant | |
| 71 | 1236 | 8/13/2014 | 7/10/2014 | FM Tyrone Little Rock | denied | Grant | |
| 72 | 1236 | 5/8/2013 | 2/13/2013 | FM Tyrone Mine - Little Rock | amend prior amend to add sump | Grant | 12/27/2000 |
| 73 | 1236 | 4/19/2013 | 2/13/2013 | FM Tyrone Mine - Little Rock | pit dewatering facility | Grant | 12/27/2000 |
| 74 | 1340 | 11/10/2016 | 9/20/2016 | FM Chino Mines | Broader category of cover materials | Grant/Luna | 2/24/2003 |
| 75 | 1340 | 7/26/2016 | 6/21/2016 | FM Chino Mines | No aerial map use Google Earth | Grant/Luna | 2/24/2003 |
| 76 | 1340 | 3/13/2015 | 11/19/2014 | FM Chino Mines | financial assurance | Grant/Luna | 2/24/2003 |
| 77 | 1340 | 2/11/2015 | 1/12/2015 | FM Chino Mines | upward mobility study - Munk defense | Grant/Luna | 2/24/2003 |
| 78 | 1340 | 8/14/2014 | 7/15/2014 | FM Chino Mines | change closure plan 3A waste rock stockpile | Grant/Luna | 2/24/2003 |
| 79 | 1340 | 3/4/2014 | 12/21/2012 | FM Chino Mines | Financial assurance | Grant/Luna | 2/24/2003 |
| 80 | 1340 | 12/2/2011 | 11/28/2011 | FM Chino Mines | construct STS2 Stockpile | Grant | |
| 81 | 1340 | 5/9/2006 | | FM Chino Mines | Financial assurance | Luna | 2/24/2003 |
| 82 | 1341 | 7/26/2016 | 6/22/2016 | FM Tyrone Mine | No aerial map use Google Earth | Grant | 4/8/2003 |
| 83 | 1341 | 11/26/2012 | 6/28/2012 | FM Tyrone Mine - Warm Spring | Financial assurance | | |
| 84 | 1341 | 10/22/2012 | 3/13/2012 | FM Tyrone Mine | upward mobility study - Munk defense | Grant | 10/15/2003 |
| 85 | 1341 | 1/25/2010 | 12/9/2009 | FM Tyrone Mine | Financial assurance | Grant | 4/8/2003 |
| 86 | 1341 | 10/2/2008 | 9/22/2007 | FM Tyrone Mine | monitoring network compromised | Grant | 4/8/2003 |
| 87 | 1399 | 7/14/2017 | 6/6/2017 | Mosaic Potash Carlsbad Mine | Discharge slurry from crusher plant w/brine | Eddy | 9/30/2011 |
| 88 | 1399 | 12-15-15-4 | 10/15/2013 | Mosaic Potash Carlsbad Mine | monitoring network partial denial | Eddy | 9/30/2011 |
| 89 | 1403 | 6/28/2016 | 6/14/2016 | FM Cobre Mining | No aerial map use Google Earth | Grant | 12/10/2004 |
| 90 | 1568 | 6/22/2012 | 5/18/2012 | FM Chino Mines - multi DPs | 1.5 MGD dust suppression | Grant | multi |
| 91 | 1651 | 1/14/2011 | 1/12/2011 | Lordsburg Mining - Banner Mill | addt'l chemicals in flotation | Hidalgo | 11/16/2009 |
| 92 | 1681 | 11/18/2016 | 11/7/2016 | Intrepid Potash | Expanded use of brine | Eddy | 7/10/2015 |
| 93 | 1681 | 6/27/2012 | 12/22/2011 | Intrepid Potash | incorporate design from feb 2012 EIS | Eddy | 7/12/2010 |



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Harold Runnels Building
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, New Mexico 87502-5469
Phone (505) 827-2900 Fax (505) 827-2965
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RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL—RETURN RECEIPT REQUESTED

August 11, 2015

Anthony Baus, Site Manager
Rio Algom Mining LLC
P.O. Box 218
Grants, NM 87020

RE: Rio Algom Mining LLC/Discharge Permit-71: DP-71 amendment 15-01 for reporting requirements (RAML, February 10, 2015 and July 24, 2015; Discharge Permit-71 Reporting Requirements)

Dear Mr. Baus:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the above-referenced letters from Rio Algom Mining LLC (RAML), in which RAML requests to change the reporting format that is stipulated in Condition 15 of Discharge Permit-71 (DP-71), as previously amended on December 12, 2013 (*Rio Algom Mining LLC Discharge Permit DP-71 Amendment*).

NMED issues this Discharge Permit Amendment to the above-referenced Discharge Permit 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. This Discharge Permit Amendment does not result from significant changes in the quantity or quality of effluent or in the location of the discharge.

The Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit, DP-71, which was issued to RAML on December 1, 2003. The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by RAML and are enforceable by NMED pursuant to Section 20.6.2.3104 NMAC and NMSA 1978 §74-6-5 and §74-6-10. Issuance of this Discharge Permit Amendment does not relieve the Permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state, and/or local laws and regulations, such as zoning requirements and nuisance ordinances.



Anthony Baus, Rio Algom Mining LLC Site Manager

RE: Rio Algom Mining LLC/Discharge Permit-71: DP-71 amendment 15-01 for reporting requirements (RAML, February 10, 2015; *Discharge Permit-71 Reporting Requirements*)
August 11, 2015

Pursuant to Paragraph (4) of Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit Amendment shall be the same as the term of the Discharge Permit.

Please contact David L. Mayerson at (505) 476-3777 or by email at david.mayerson@state.nm.us if you should have any questions on this letter.

Sincerely,



Trais Kliphuis, Director
Water and Wastewater Division
New Mexico Environment Department

Enclosure: Discharge Permit-71 amendment 15-01

Emailed copies:

David L. Mayerson, NMED (david.mayerson@state.nm.us)
Tom McLaughlin, NRC (Thomas.McLaughlin@nrc.gov)
Lisa Price, EPA (Price.Lisa@epamail.epa.gov)
Kurt Vollbrecht, NMED (kurt.vollbrecht@state.nm.us)

GROUND WATER DISCHARGE PERMIT AMENDMENT 15-01
Discharge Permit-71—Rio Algom Mining LLC Section 4 Evaporation Ponds
August 11, 2015

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit Amendment pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Control Commission (WQCC) Regulations, 20.6.2 NMAC. This Discharge Permit Amendment addresses reporting requirements only, and is not a result of significant changes in the quantity or quality of effluent or in the location of discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in Discharge Permit-71 (DP-71), which was issued to Rio Algom Mining LLC (RAML or Permittee) on December 3, 2003, and subsequently amended on December 12, 2013. In issuing this Discharge Permit Amendment, NMED has determined that requirements of 20.6.2.3109.C NMAC have been met.

This amendment to DP-71 requires the Permittee to submit an annual report summarizing activities herein in combination with the 4th quarter report that the Permittee is required to submit under Discharge Permit-362, rather than as a separate report.

The Section 4 Evaporation ponds are located approximately 15 miles north of the City of Milan in Section 4, Township 15 North, Range 9 West in McKinley County. Data acquired from monitoring of MW-32 indicate persistent exceedances of numerical ground water standards promulgated in 20.2.3103 NMAC for nitrate, sulfate, total dissolved solids, selenium, and uranium. Background concentrations of these constituents in ground water are unknown.

The Permittee's Discharge Permit Amendment consists of information provided to NMED in letters dated February 10, 2015 and July 24, 2015.

II. CONDITIONS

The condition below replaces the condition of the same number in DP-71, as previously amended (NMED, December 4, 2013; "*Rio Algom Mining LLC discharge Permit DP-71 Amendment*"). This condition, and all other conditions in the Discharge Permit, must be complied with by the Permittee and are enforceable by NMED.

Anthony Baus, Rio Algom Mining LLC Site Manager

RE: Rio Algom Mining LLC/Discharge Permit-71: DP-71 amendment 15-01 for reporting requirements (RAML, February 10, 2015; Discharge Permit-71 Reporting Requirements)

August 11, 2015

Reporting:

| CONDITION NUMBER | AMENDED CONDITION |
|---------------------|---|
| 15 | <p>The Permittee shall submit to NMED an annual report by the last day of January of each year. The report shall be combined with the 4th quarter report that is required under the NMED-approved [i.e., NMED, May 8, 2013; <u>Rio Algom Mining LLC Discharge Permit DP-362—Conditional approval of “Rio Algom sampling and analysis plan for DP-362 Stage 1 abatement” (April 26, 2013, Rev. 1); Response to “Rio Algom Mining LLC—Ambrosia Lake (Site) DP-362 sampling and analysis plan action items from April 10, 2013 meeting” (Rio Algom Mining LLC, April 26, 2013)</u>] Sampling and Analysis Plan for DP-362 [i.e., Intera, April 26, 2013; <u>Rio Algom Sampling and Analysis Plan for DP-362</u>]. The report shall include, but not be limited to, the following:</p> <ul style="list-style-type: none">A. A summary of all activities and data relating to closure of the Section 4 evaporation ponds and abatement of ground water during the preceding year. These activities and data shall include, but are not limited to, contaminated sediment removal, cap construction, well drilling and abandonment, water quality trends, precipitation, water level trends, and potentiometric maps.B. Ground water data, presented in a single table in a paper and electronic format (i.e., Microsoft Excel® spreadsheet), with only those constituents analyzed and water levels measured during a single event shown in columns. Tabulated electrical conductivity will include the measured field values and corrected values to 25 degrees Celsius. Monitoring sites will be shown in rows. Each new sampling event shall be added as an additional row to the existing spreadsheet with the date noted in the far left column. Values exceeding the numerical standards promulgated in 20.6.2.3103 NMAC will be bolded. Any constituent not analyzed for a particular monitoring well will be shown as “NA”; any well not sampled will be shown as “NS” with an associated reason; and any well not measured water levels will be shown as “NM” with an associated reason.C. Copies of the signed laboratory analyses sheets shall be provided annually.D. Annual reports with water quality trends, laboratory QA/QC and water level trends. At a minimum, graphs with the previous 5 years of indicator parameter data will be presented for total dissolved solids, sulfate, and hydrographs.E. Annual potentiometric map for the shallow alluvial aquifer in the vicinity of the Section 4 evaporation ponds. The map shall |

Anthony Baus, Rio Algom Mining LLC Site Manager

RE: Rio Algom Mining LLC/Discharge Permit-71: DP-71 amendment 15-01 for reporting requirements (RAML, February 10, 2015; Discharge Permit-71 Reporting Requirements)
August 11, 2015

| | |
|--|--|
| | include all alluvial aquifer monitoring well data collected under all Discharge Permits that have been issued to RAML for facilities in the vicinity of the Section 4 evaporation ponds. [20.6.2.3107.A NMAC] |
|--|--|

ISSUED: August 11, 2015



Trais Kliphuis, Director
Water and Wastewater Division
New Mexico Environment Department

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

TK/dlm



SUSANA MARTINEZ
Governor

JOHN SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

P.O. Box 5469
1190 St. Francis Drive
Santa Fe, New Mexico 87502-5469
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www.nmenv.state.nm.us



RYAN FLYNN
Cabinet Secretary-Designate

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

December 12, 2013

Mr. William Ray, Manager
Ambrosia Lake Site Manager
Rio Algom Mining LLC
POB 218
Grants, NM 87020

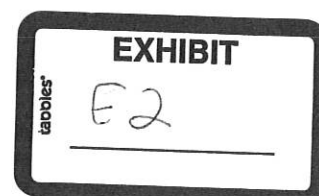
RE: Rio Algom Mining LLC Discharge Permit DP-71 Amendment

Dear Mr. Ray:

The New Mexico Environment Department ("NMED") issues the enclosed Discharge Permit Amendment to the above-referenced Discharge Permit to Rio Algom Mining LLC ("RAML" and "Permittee") 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. This Discharge Permit Amendment does not result from significant changes in the quantity or quality of effluent or in the location of the discharge.

The Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit, DP-71, which was issued to RAML on December 1, 2003. The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by RAML and are enforceable by NMED pursuant to Section 20.6.2.3104 NMAC and NMSA 1978 §74-6-5 and §74-6-10. Issuance of this Discharge Permit Amendment does not relieve the Permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state, and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

Pursuant to Paragraph (4) of Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit Amendment shall be the same as the term of the Discharge Permit.



Mr. William Ray, RAML
RE: Rio Algom Mining Discharge Permit DP-71 Amendment
December 12, 2013

If you have any questions, please contact David L. Mayerson at (505) 476-3777 or david.mayerson@state.nm.us.

Sincerely,



Jerry Schoeppner, Chief
Ground Water Quality Bureau
New Mexico Environment Department

Enclosure: Discharge Permit Amendment DP-71

Copies:

David L. Mayerson, MECS
Tom McLaughlin, NRC
Kurt Vollbrecht, MECS

GROUND WATER DISCHARGE PERMIT AMENDMENT
DP-71—Rio Algom Mining LLC Section 4 Evaporation Ponds
December 12, 2013

I. INTRODUCTION

The New Mexico Environment Department ("NMED") issues this Discharge Permit Amendment 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. This Discharge Permit Amendment addresses monitoring requirements only and is not a result of significant changes in the quantity or quality of effluent or in the location of discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in Discharge Permit DP-71, which was issued to Rio Algom Mining LLC ("RAML" or "Permittee") on December 1, 2003. In issuing this Discharge Permit Amendment, NMED has determined that requirements of 20.6.2.3109.C NMAC have been met.

DP-71, which was last renewed on December 1, 2003, permitted RAML to discharge up to 2,390,000 gallons per day of effluent from the Permittee's uranium mill facility, which is administered under Discharge Permit DP-169, to 11 synthetically-lined ponds ("Section 4 Evaporation Ponds"), and included requirements for ground water abatement activities relating to potential ground water impacts resulting from seepage from these ponds. At the time that DP-71 was renewed, discharge to the ponds had ceased, and reclamation began soon thereafter. RAML installed monitoring wells in compliance with Condition 6 of DP-71; monitoring of these wells in compliance with Conditions 10 and 13 of DP-71 has documented the progressive desiccation of the alluvial aquifer underlying these ponds, such that ground water now occurs in sufficient quantity for sample recovery in only one monitoring well (e.g., MW-32).

This amendment to DP-71 includes the following:

- Incorporates existing monitoring wells MW-32 and MW-33, which were installed pursuant to Condition 6, into the alluvial aquifer monitoring program specified in Condition 10;
- Reduces the monitoring requirements for the alluvial aquifer monitoring program specified in Condition 10 from a quarterly to an annual schedule, due to the fact that only one monitoring well (e.g., MW-32) has had measurable saturation for several years;
- Reduces the reporting requirement for such monitoring from a quarterly to an annual schedule.

The Section 4 Evaporation ponds are located approximately 15 miles north of the City of Milan in Section 4, Township 15 North, Range 9 West in McKinley County. Data acquired from monitoring of MW-32 indicate persistent exceedances of numerical ground water standards promulgated in 20.2.3103 NMAC for nitrate, sulfate, total dissolved solids, selenium, and uranium. Background concentrations of these constituents in ground water are unknown.

The Permittee's Discharge Permit Amendment consists of information provided to NMED during a meeting on October 23, 2013.

II. CONDITIONS

The conditions below replace the conditions of the same number in DP-71. These conditions, and all other conditions in the Discharge Permit, must be complied with by the Permittee and are enforceable by NMED.

Sampling and Field Measurements:

| CONDITION NUMBER | AMENDED CONDITION |
|------------------|--|
| 10 | <p>Ground Water Monitoring Wells—The Permittee shall monitor ground water quality as follows:</p> <p>A. Monitoring Wells 1 through 33 shall be sampled as follows:</p> <ol style="list-style-type: none">1) The Permittee shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), annually.2) If sufficient water is available in the well, the Permittee shall collect samples from each well annually and analyze for the water parameters listed in Conditions 13.B and 13.C.3) The Permittee shall record the total depth of the well to the nearest hundredth of a foot (0.01 ft) annually.4) Analytical results and depth to ground water shall be reported as required in Condition 15. [20.6.2.3107.A NMAC] |

Reporting:

| CONDITION NUMBER | AMENDED CONDITION |
|------------------|---|
| 15 | <p>The Permittee shall submit to NMED an annual report by the last day of January of each year, which shall include, but not be limited to, the following:</p> <p>A. A summary of all activities and data relating to closure of the Section 4 evaporation ponds and abatement of ground water during the preceding year. These activities and data shall include, but are not limited to, contaminated sediment removal, cap construction, well drilling and abandonment, water quality trends, precipitation, water level trends, and potentiometric maps.</p> <p>B. Ground water data, presented in a single table in a paper and electronic format (<i>i.e.</i>, Microsoft Excel® spreadsheet), with only those constituents analyzed and water levels measured during a single event shown in columns. Tabulated electrical conductivity will include the measured field values and corrected values to 25 degrees Celsius. Monitoring sites will be shown in rows. Each</p> |

| | |
|--|---|
| | <p>new sampling event shall be added as an additional row to the existing spreadsheet with the date noted in the far left column. Values exceeding the numerical standards promulgated in 20.6.2.3103 NMAC will be bolded. Any constituent not analyzed for a particular monitoring well will be shown as "NA"; any well not sampled will be shown as "NS" with an associated reason; and any well not measured water levels will be shown as "NM" with an associated reason.</p> <p>C. Copies of the signed laboratory analyses sheets shall be provided annually.</p> <p>D. Annual reports with water quality trends, laboratory QA/QC and water level trends. At a minimum, graphs with the previous 5 years of indicator parameter data will be presented for total dissolved solids, sulfate, and hydrographs.</p> <p>E. Annual potentiometric map for the shallow alluvial aquifer in the vicinity of the Section 4 evaporation ponds. The map shall include all alluvial aquifer monitoring well data collected under all Discharge Permits that have been issued to RAML for facilities in the vicinity of the Section 4 evaporation ponds. [20.6.2.3107.A NMAC]</p> |
|--|---|

ISSUED: December 12, 2013



JERRY SCHOEPPNER
Chief, Ground Water Quality Bureau
New Mexico Environment Department



SUSANA MARTINEZ
Governor

JOHN SANCHEZ
Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

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RYAN FLYNN
Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

February 5, 2015

Bruce Taylor, Manager
Freeport-McMoRan Cobre Mining Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment 07-05 Approval, Amendment to Abandon and Replace
Monitoring Wells along Proposed Cobre Haul Road, DP-181 and DP-1056

Dear Mr. Taylor,

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport-McMoRan Cobre Mining Company (permittee) titled, *Freeport-McMoRan Cobre Mining Company (Cobre), Discharge Permits 181 and 1403 Amendment for Cobre Haul Road Monitoring Wells* (Letter), dated January 13, 2015 and received by NMED on January 16, 2015. In the Letter, the permittee requests to amend Discharge Permits, DP-181 and DP-1403, for the abandonment and replacement of three wells that will be impacted by the construction of the proposed Cobre Haul Road. One of the wells proposed for abandonment and replacement is currently permitted in DP-1056 (Hanover Mountain Well). Under this permit amendment, the replacement well will be permitted in DP-181, which requires an amendment to conditions contained in both DP-1056 and DP-181. Based on a review of DP-1403, no changes to specific terms and/or conditions are necessary. Therefore, DP-1403 does not need to be amended.

The facilities covered under DP-181, DP-1056 and DP-1403 include the Hanover-Empire Zinc Mine Area, Pearson-Barnes Mine Area, Continental Pit, several waste rock piles, Main Tailing Impoundment, Magnetite Tailing Impoundment, No. 1 and 2 Mills and Concentrator Facilities, underground mine workings, various seepage interception systems, stormwater detention impoundments, Maintenance Area, proposed Fierro Leach Pad, proposed Hanover Mountain Mine, proposed North Overburden Stockpile, proposed Cobre Haul Road, and the proposed SX/EW Plant. The facilities covered under DP-181, DP-1056 and DP-1403 are located

EXHIBIT

tabbles

E3

approximately ½ mile west of Fierro, 4 miles north of Hanover in Sections 3, 4, 5, 8, 9, 10, 15, 16, 17, 20, 21, 22, 27, 31, and 32, T17S, R12W in Grant County, New Mexico.

NMED issues this Discharge Permit Amendment 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. This Discharge Permit Amendment does not result in significant changes in the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit Renewal and Modification, DP-1056, issued on September 19, 2008, and Discharge Permit Renewal, DP-181, issued to the permittee on March 2, 2007. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.7.14 NMAC and Subsection C of 20.6.2.3109 NMAC have been met.

Amendment Description

The permittee will abandon monitoring well 1403-2006-7D, abandon and replace monitoring well 1403-2006-8D, and abandon and replace the Hanover Mountain Well. The replacement well for 1403-2006-8D will be identified as 1403-2006-8DR. The Hanover Mountain Well replacement will be identified as HMW-2015-R. Currently, the Hanover Mountain Well is permitted in DP-1056. This amendment will approve abandonment of the Hanover Mountain Well under DP-1056, but require monitoring of the replacement well (HMW-2015-R) under DP-181.

Permit Conditions

This Discharge Permit Amendment applies to the effective Discharge Permit Renewal, DP-181, and the effective Discharge Permit Renewal and Modification, DP-1056. The following conditions will be modified in DP-181 and DP-1056 and continued upon renewal. The additions to existing Condition 10 in DP-181 are italicized below. The permittee shall comply with these conditions, which are enforceable by NMED.

DP-181

10. Ground Water Monitoring Wells – Cobre shall monitor ground water quality as follows:

- a) Monitoring Wells 181-2004-01, 181-2004-02, 181-2004-03, 181-2004-04, 181-2004-05, 181-2004-06, 181-2004-07, 181-2004-08, 181-2004-09, 181-2004-10, 181-2004-11, 181-2004-12, 181-2006-01, 181-2006-02, MW-1A, MW-2, MW-3, MW-4A, MW-5, MWSA, MW-7, MW-8, MW-10, MW-12, MW-14, MW-17, MW-19, MW-20, MW-21, MW-22, MW-24, MW-25, 1403-2006-1S, 1403-2006-1D, 1403-2006-2D, 1403-2006-3D, 1403-2006-4S, 1403-2006-4D, 1403-2006-5D, *1403-2006-8DR*, 1403-2006-06, 1403-2006-07, 1403-2006-08, 1403-2006-09, and *HMW-2015-R* and any new wells installed during the term of this Discharge Permit Renewal shall be sampled as follows:

- 1) Cobre shall record the depth to the water table and elevation above mean sea level to the nearest hundredth of a foot (0.01 ft) quarterly.
- 2) Cobre shall collect samples from each well quarterly and analyze for the water parameters listed in Conditions 18b, 18c, and 18f below.
- 3) Based on the results of four quarters of sampling of new wells installed during the term of this permit, Cobre may submit to NMED for approval an amended monitoring program that proposes analytes and sampling frequencies.

DP-1056

24. Ground Water Monitoring Wells – Cobre shall monitor ground water quality as follows:

- a) Following installation, monitoring wells MW-7A, MW-15, MW-18, and MW-23 shall be sampled as follows:
 1. Cobre shall record the depth to the water table in the monitoring wells to the nearest hundredth of a foot (0.01 ft), quarterly.
 2. Cobre shall collect samples from each well quarterly and analyze for the water parameters listed in Conditions 29b, 29c and 29f below.

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-181 and DP-1056 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee 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-181 and DP-1056 shall be the same as the terms of DP-181 and DP-1056, which will expire on March 2, 2017 and September 19, 2018, respectively. [Subsection F of 20.6.2.3106 NMAC]

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

Please contact Anne Maurer of the Mining Environmental Compliance Section at (505) 827-2906 with any questions.

Mr. Bruce Taylor – DP-181 and DP-1403, Amendment 07-05
February 5, 2015
Page 4 of 4

Sincerely,



Jerry Schoepner, Chief
Ground Water Quality Bureau

JS:AM

cc: GRIP (signed PDF copy via electronic mail: grip@gilaresources.info)
Kurt Vollbrecht, Program Manager, GWQB-MECS (signed PDF copy via
electronic mail: kurt.vollbrecht@state.nm.us)
George Llewellyn, GWQB-MECS, Silver City Office (signed PDF copy via
electronic mail: george.llewellyn@state.nm.us)
James Hollen, MMD Permit Lead (signed PDF copy via electronic mail:
james.hollen@state.nm.us)

Summary of DP-181 Permit and Amendment Chronology:

| Document Name | Amendment No. | Effective/Issuance Date |
|--|---------------|-------------------------|
| Discharge Permit Renewal, Continental Mine, DP-181 | N/A | March 2, 2007 |
| Discharge Permit Amendment, DP-181; Revised Sample Point Nomenclature | 07-01 | December 31, 2008 |
| Discharge Permit Amendment, DP-181; Fugitive Tailings and Magnetite Dust Control Plan | 07-02 | February 5, 2010 |
| Discharge Permit Amendment, DP-181; Installation of Horizontal Drains, Magnetite Tailing Impoundment | 07-03 | February 23, 2011 |
| Discharge Permit Amendment, DP-181; Bullfrog Replacement and Relocation | 07-04 | March 16, 2012 |

Summary of DP-1056 Permit and Amendment Chronology:

| Document Name | Amendment No. | Effective/Issuance Date |
|---|---------------|-------------------------|
| Discharge Permit Renewal, Continental Mine, DP-1056 | N/A | September 19, 2008 |



SUSANA MARTINEZ
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JOHN A. SANCHEZ
Lieutenant Governor

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BUTCH TONGATE
Cabinet Secretary - Designate

J.C. BORREGO
Acting Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

December 5, 2016

Sherry Burt-Kested, Environmental Manager
Freeport-McMoRan Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment 05-04, DP-213; Ivanhoe Concentrator Domestic Wastewater, Freeport-McMoRan Chino Mines Company

Dear Ms. Burt-Kested:

The Mining Environmental Compliance Section (MECS) of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport-McMoRan Chino Mines Company (permittee) titled, *Freeport-McMoRan Chino Mines Company - Discharge Permit 213 (DP-213) Amendment, Ivanhoe Concentrator Domestic Waste* (Amendment Request) dated November 3, 2016, and received by NMED on November 7, 2016. In the Amendment Request, the permittee requests to amend DP-213 to allow the discharge of domestic wastewater to Reservoir 4A, part of the Whitewater Leaching System (DP-526).

DP-213 was issued to the permittee on June 16, 2005 and addresses the Ivanhoe Concentrator, three tailing pipelines, one process water pipeline, one concentrate pipeline and associated infrastructure. The facilities are located approximately 15 miles east of Silver City and adjacent to the towns of Bayard and Hurley in Sections 32 and 33, T17S, R12W; Sections 5, 6, 7, 18, 19, 30, 31 and 32, T18S, R12W; and Sections 5, 6 and 7, T19S, R12W in Grant County.

NMED issues this Discharge Permit Amendment 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 and 20.6.7 NMAC. This Discharge Permit Amendment changes specific terms and/or conditions contained in DP-213. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.7.14 NMAC and Subsection C of 20.6.2.3109 NMAC have been met.



Amendment Description

DP-213 currently authorizes the permittee to discharge up to 3,200 gallons per day (gpd) of domestic wastewater generated at the Ivanhoe Concentrator and surrounding facilities through the tailings pipelines to the Termination Tanks located seven miles to the south. The purpose of this amendment is to authorize the permittee to also discharge the domestic wastewater to Reservoir 4A.

Conditions

The conditions and sections listed below replace the conditions and sections with the same number in DP-213, which is still in effect pursuant to Subsection F of 20.6.2.3106 NMAC. Changes to the conditions and sections are shown in italics. These conditions, and all other conditions in the Discharge Permit must be complied with by the permittee and are enforceable by NMED.

Quantity, Quality and Flow Characteristics of the Discharge:

Tailings Pipelines: The tailings slurry has an average solids content of 48% by weight, and ranges from 45% to 55% solids by weight. Up to 24.5 million gallons per day (gpd) of tailings slurry from the Ivanhoe Concentrator is discharged through the tailings pipelines *to the Termination Tanks. In addition, up to 3,200 gpd of domestic wastewater generated from the Ivanhoe Concentrator and surrounding facilities is discharged to a septic tank located southeast of the tailing thickeners and then conveyed to either the tailings pipelines or Reservoir 4A.* The amount of water discharged through the tailing pipelines shall not exceed 15.6 million gallons per day. Tailings slurry water usually exceeds WQCC Regulations 20.6.2.3103.A for fluoride and selenium, 20.6.2.3103.B for sulfate and total dissolved solids (TDS) and 20.6.2.3103.C for molybdenum. The tailings slurry usually has a pH between 8 and 10.

2. Chino is authorized to manage process flows as follows:
 - A. Up to three tailings pipelines transport tailings slurry and domestic waste from the Ivanhoe Concentrator approximately seven miles south to a distribution tank (*i.e., Termination Tanks*).
 - 1) The tailings pipelines are permitted to convey a maximum of 15.6 million gallons per day of tailings water, which combined with the tailings material produces a tailings slurry that shall not exceed 24.5 million gallons per day.
 - 2) *Up to 3,200 gpd of domestic wastewater generated from the Ivanhoe Concentrator and surrounding facilities is permitted to be discharged to Reservoir 4A or conveyed to the tailing pipelines.*
21. Flow Measurements - Chino shall measure average daily flows using appropriate metering devices for the following discharges:
 - A. Volume of tailings slurry pumped to the tailings ponds;
 - B. Volume of concentrate slurry pumped to the smelter;

- C. Estimate of the monthly volume of domestic *wastewater* originating from the Ivanhoe Concentrator and surrounding facilities discharged to the tailings pipelines *or Reservoir 4A*; and,
- D. Volume of process water pumped from the 750,000-gallon tank to the concentrator.

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-213 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee of liability should its operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations.

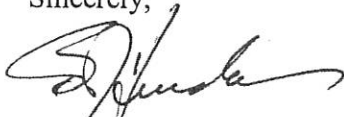
Period of Approval

Pursuant to Paragraph (4) of Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit Amendment for the DP-213 shall be the same as the term of DP-213. The timely submission of the Discharge Permit renewal application on February 16, 2010 keeps the existing permit and associated amendment(s) effective until the renewal process is complete. [20.6.2.3106.F NMAC]

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

Please contact Brad Reid of MECS at 505-827-2963 with any questions.

Sincerely,



Bruce Yurdin, Director
Water Protection Division
New Mexico Environment Department

BY:BR

cc: Sherry Burt-Kested, Environmental Manager, Chino Mines Company (signed copy: sburtkes@fmi.com)
Kariann Sokulsky, Chino Mines Company (signed copy: ksokulsk@fmi.com)
Devan Williams, Chino Mines Company (signed copy: dwilliam2@fmi.com)
Gila Resources Information Project (signed copy: grip@gilaresources.info)
Kurt Vollbrecht, MECS Program Manager (signed copy: kurt.vollbrecht@state.nm.us)
David Mercer, MECS Chino AOC Project Manager (signed copy: david.mercer1@state.nm.us)
George Llewellyn, MECS, Silver City Field Office (signed copy: george.llewellyn@state.nm.us)
David Ennis, MMD (signed copy: david.ennis@state.nm.us)

Summary of DP-213 Permit and Amendment Chronology:

| Document Name | Effective/ Issuance Date |
|--|--------------------------------|
| Discharge Permit Renewal and Modification, Ivanhoe Concentrator and Associated Pipelines DP-213 | June 16, 2005 |
| Discharge Permit Amendments 05-01, DP-526, DP-213 & DP-214, Placement of Hidalgo Copper Bearing Material on the Chino South Stockpile and Chino Mill Intermediate Ore Stockpile; and Staging of Hidalgo Material on the Chino Older Tailings Impoundments; Freeport – McMoRan Chino Mine | May 9, 2008 |
| Discharge Permit Amendment 05-02, DP-213; Use of the East Tailing Line as Process Water Return Line | February 28, 2011 |
| Discharge Permit Amendment 05-03, DP-213; Reduction in Frequency of Pipeline Roving | February 28, 2011 |
| Discharge Permit Amendment 05-04, DP-213; Ivanhoe Concentrator Domestic Wastewater, Freeport-McMoRan Chino Mines Company | December 5, 2016 |

A-4/85



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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Timothy E. Eastep,
Environment, Land & Water
Chino Mines Co.
210 Cortez St.
Hurley, NM 88043

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 14, 2007

Timothy E. Eastep, Manager
Environment, Land & Water
Chino Mines Company
210 Cortez St.
Hurley, NM 88043

**RE: Discharge Permit Amendment for Northeast Lampbright Booster Station, DP-376,
Lampbright Leach System, Chino Mines Company.**

Dear Mr. Eastep:

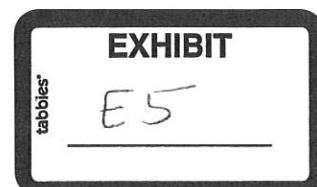
The February 2, 2006 requested amendment of DP-376, as requested by Chino Mines Company (Chino) and pursuant to a condition to the corrective action report dated January 11, 2006, for the incorporation of the Northeast Lampbright Booster Station (NLBS), is hereby approved pursuant to the Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC). The Discharge Permit for DP-376 was issued on May 14, 2004. The Lampbright Leach System Discharge Permit contains an operational discharge plan for the leach pile and waste rock facility. The Lampbright Leach System is located approximately 5 miles northeast of Bayard and 4 miles southeast of Hanover in Section 25, 26, 35 and 36, T17S, R12W in Grant County. In approving this discharge permit amendment, the New Mexico Environment Department (NMED) has determined that the requirements of Section 20.6.2.3109.C NMAC have been met.

The approved amendment to Discharge Permit, DP-376, is described as follows:

The May 14, 2004 Discharge Permit includes the following permit condition regarding flow description requirements for the Chino Mines Facility:

Chino shall manage discharges of leach solutions as follows:

4. Application of Acidic Leach Solution: Chino is authorized to discharge up to 26,494,560 gallons per day of raffinate to the Lampbright Main and South leach ore stockpiles. Leaching is only permitted on the Lampbright Main and South leach ore stockpiles, which are located within the Lampbright Leach System as shown in Figures 1 and 2 of the permit application dated June 29, 2001. [20.6.2.3109 NMAC]



5. Southeast Corner of South Lampbright Leach Ore Stockpile: Pursuant to conclusions in a May 1996 report entitled "Phase III Groundwater Flow Modeling for Lampbright Draw" by Woodward-Clyde Consultants, Chino shall not leach within 200 feet of the southeast corner of the South Lampbright leach ore stockpile. [20.6.2.3109 NMAC]
6. Reservoir 8: Chino is authorized to operate Reservoir 8, under standard operating conditions, to collect and transfer up to 26,494,560 gallons per day of PLS at the base of the Lampbright leach ore stockpiles and at a maximum elevation of 6135 feet above mean sea level except as described in the Emergency Response Plan. When operating the leach system at or near the maximum raffinate discharge rate, the minimum pumping capacity of Reservoir 8 shall be 24,000 gpm. In the event that Chino applies lower flow rates of raffinate, Chino shall maintain a pumping capacity of 25 percent greater than the raffinate application rate with a minimum pumping capacity of 5,600 gpm for storm events. [20.6.2.3109 NMAC]
7. Lampbright East Collection Pond: Chino is authorized to operate the Lampbright East Collection Pond to collect and transfer PLS. PLS shall be collected in a high density polyethylene (HDPE) lined pond with a floating barge pump that may transfer the PLS to Reservoir 8 or to the SX/EW. The east side seep flows at approximately 400 gpm and is also referred to as the East Lampbright Sump, which is located adjacent to monitoring well 377-00-01. [20.6.2.3109 NMAC]

Condition 7 of DP-376 will include a subpart (a) that incorporates the northeast lampbright booster station. The amended permit condition 7, subpart (a) reads as follows:

- a. Northeast Lampbright Booster Station (NLBS): Chino is authorized to operate the Northeast Lampbright Booster Station to collect and transfer raffinate. Raffinate shall be collected in a stainless steel tank with an operating volume of 400,000 gallons and a designed flow of 23,328,000 gallons per day. Raffinate enters from the solution extraction/electrowinning (SX/EW) plant and is discharged to the Lampbright South or Main leach piles.

Approval of this Discharge Permit Amendment does not relieve Chino of responsibility for compliance with any other conditions or requirements of the approved discharge permit, DP-376, or any other applicable federal, state, and/or local laws and regulations, including zoning requirements and nuisance ordinances.

This amendment approval expires on May 14, 2009, the same date as the original permit, and Chino should submit an application for renewal at least 120 days before that date.

Tim Eastep, DP-376 :
June 14, 2007
Page 3 of 3

If you have any questions, please contact Phil Harrigan of the Mining Environmental Compliance Section staff at 388-1934.

Sincerely,

A handwritten signature in black ink, appearing to read "William C. Olson". The signature is fluid and cursive, with the first name "William" being more prominent.

William C. Olson, Chief
Ground Water Quality Bureau

WCO:MAM:KCM/kcm/ph

cc: Phil Harrigan, GWQB, Silver City Office
Mary Ann Menetrey, Program Manager, MECS



BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

August 11, 2008

Mr. Timothy E. Eastep
Environment, Land & Water
Chino Mines Company
P.O. Box 7
Hurley, New Mexico 88043

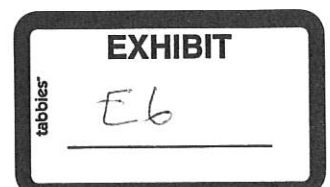
RE: Discharge Permit Amendment of Conditions 9 and 16, DP-376, Lampbright Leach System, Chino Mines Company

Dear Mr. Eastep:

The June 22, 2007 requested amendment of DP-376 Conditions 9 and 16, as requested by Chino Mines Company (Chino) and pursuant to DP-376 Conditions 9 and 10 regarding Storm Water Management and Condition 16 regarding sampling of Pond 4, is hereby approved pursuant to the Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC). The Discharge Permit for DP-376 was issued on May 14, 2004. The Lampbright Leach System Discharge Permit contains an operational discharge plan for the leach pile and waste rock facility. The Lampbright Leach System is located approximately 5 miles northeast of Bayard and 4 miles southeast of Hanover in Sections 25, 26, 35 and 36 of T17S, R12W in Grant County. In approving this discharge permit amendment, the New Mexico Environment Department (NMED) has determined that the requirements of Section 20.6.2.3109.C NMAC have been met.

The approved amendments to Discharge Permit DP-376 are described as follows:

The May 14, 2004 Discharge Permit includes the following permit conditions regarding storm water management requirements for the Chino Mines Company Lampbright Leach System:



Storm Water Management:

9. *Stormwater Retention Ponds and Collection System:* As illustrated in the Emergency Response Plan dated April 1998, stormwater shall be collected in six unlined detention ponds numbered one through six. The water collected in these ponds shall be transferred via gravity to Reservoir 8 and pumped to the SX/EW plant. Stormwater ponds 1, 2, 3, 5 and 6 collect stormwater and PLS from the South and Main Lampbright leach ore stockpiles, and Pond 4 collects stormwater runoff from the Southwest Lampbright waste rock pile. Chino shall collect and transfer stormwater in lined and unlined conveyance systems along the toe of the stockpiles. [20.6.2.3107 NMAC]

Sampling and Field Measurements:

16. *Storm Water* – Pursuant to the emergency response plan, Chino shall inspect on a monthly basis all storm water impoundments, dikes and collection ponds for the presence of storm water accumulations that exceed designed capacities. In the event of rainfall, Chino shall ensure that the pumping capacity is adequate to maintain Reservoir 8 at or below 6135 feet above mean sea level except as described in the emergency response plan. Chino shall sample stormwater pond 4 on a quarterly basis and analyze for the water parameters listed in Conditions 19B and 19C. The results shall be reported as required in Condition 20 below. [20.6.2.3107.A NMAC]

The amended Condition 9 of DP-376 shall read as follows:

9. *Stormwater Collection System:* Chino shall collect and transfer stormwater in lined and unlined conveyance systems along the toe of the stockpiles. Water collected in 11 catchments and 3 sediment basins is transferred via gravity toward Reservoir 8. Unimpacted stormwater is diverted along unlined channels and away from collection points in the vicinity of Reservoir 8. [20.6.2.3107 NMAC]

The amended Condition 16 of DP-376 shall read as follows:

16. *Chino shall inspect, on a monthly basis or after a significant rain event, all storm water impoundments, dikes and collection ponds for the presence of storm water accumulations that exceed designed capacities. In the event of rainfall, Chino shall ensure that the pumping capacity is adequate to maintain Reservoir 8 at or below 6135 feet above mean sea level except as described in the April 1998 Emergency Response Plan or its current version.* [16. 20.6.2.3107.A NMAC]

Approval of this Discharge Permit Amendment does not relieve Chino of responsibility for compliance with any other conditions or requirements of the approved Discharge Permit, DP-376, or any other applicable federal, state and/or local laws and regulations, including zoning requirements and nuisance ordinances.

This amendment approval expires on May 14, 2009, the same date as the original permit, and Chino should submit an application for renewal at least 120 days before that date.

Mr Tim Eastep, Manager
DP-376, Amendment Approval
August 11, 2008
Page 3 of 3

If you have any questions please contact Kurt Vollbrecht, of the Mining Environmental Compliance Section staff, at 505-827-0195.

Sincerely,



William C. Olson, Chief
Ground Water Quality Bureau

WCO:MAM:KCM/ph

cc: Mary Ann Menetrey
DP-376 file



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

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RYAN FLYNN
Secretary - Designate

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

January 24, 2014

John Brack, VP of Chino Acquisition, Inc.
Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment 10-03, DP-376, Lampbright Leach System Acid Cure Tank, Freeport-McMoran Chino Mines Company

Dear Mr. Brack:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport McMoRan Copper and Gold - Chino Mines Company (permittee) titled, *Lampbright Leach System – Discharge Permit 376 (DP-376) Condition 48, Amendment Request for Acid Cure Tank* (Letter), dated December 23, 2013, and received by NMED on December 27, 2013. In the Letter, the permittee requests to amend the Discharge Permit, DP-376, for the addition of an Acid Cure Tank on top of the Lampbright Stockpile. The facilities covered under DP-376 are located approximately 5 miles northeast of Bayard and 4 miles southeast of Hanover in Section 25, 26, 35 and 36, T17S, R12W in Grant County.

NMED issues this Discharge Permit Amendment 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 and 20.6.7 NMAC. This Discharge Permit Amendment does not result in significant changes in the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit Renewal/Modification, DP-376, issued to the permittee on June 17, 2010. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.7.14 NMAC and Subsection C of 20.6.2.3109 NMAC have been met.



Amendment Description

The purpose of this Discharge Permit Amendment is to authorize placement of a skid-mounted sulfuric acid cure tank on the southwest corner on top of the South Lampbriht Stockpile. The sulfuric acid in the tank, up to 93-98% pure, will be mixed with raffinate in a mixing pipe located outside the tank to augment recovery of readily leachable copper oxide ore.

The carbon-steel sulfuric acid cure tank has a design capacity of 38,000 gallons with a maximum pumping rate of 1,100 gallons per minute. A flow meter will measure the amount of sulfuric acid discharged from the tank. The tank will be filled via sulfuric acid hauling trucks. To prevent overfilling, the tank will be equipped with a level sensor that will indicate the tank volume to both a control room and the haul truck driver. The tank will also be equipped with overflow pipes that will convey any excess acid away from the tank. Spills from the tank will be contained on the top surface of the South Lampbriht Stockpile.

Permit Conditions

This Discharge Permit Amendment applies to the effective Lampbriht Leach System Discharge Permit, DP-376. The following conditions will be added to DP-376 and continued upon renewal. The permittee shall comply with these conditions, which are enforceable by NMED.

1. Design, construction, and operation of the Acid Cure Tank shall be as outlined above and described in the Letter and in accordance with Section 20.6.7.17 NMAC and Section 20.6.7.23 NMAC of the Supplemental Permitting Requirements for Copper Mine Facilities.
2. The Acid Cure Tank shall remain within the area identified in the Letter. The permittee shall notify NMED in writing prior to relocation of the tank and/or if the permittee places the tank in a different location than identified in the Letter [Section 20.6.2.3109 NMAC]
3. Any leaks or spills from the Acid Cure Tank shall be recorded, reported and corrected pursuant to Section 20.6.7.23.C NMAC.
4. Discharges volumes from the Acid Cure Tank are considered raffinate and shall be reported as per Condition 24a of DP-376. The permittee shall not apply more than the approved discharge volume of 26,494,560 gallons per day of raffinate to the Lampbriht Stockpiles. [Section 20.6.2.3109 NMAC]

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-376 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee of liability should its operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations.

John Brack, Lampbright Leach System, DP-376

January 24, 2014

Page 3

Period of Approval

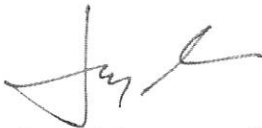
Pursuant to 20.6.2.3109.H.4 NMAC, the term of this Discharge Permit Amendment for DP-376 shall be the same as the term of DP-376 and will expire on June 17, 2015.

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

Please contact Brad Reid of the Mining Environmental Compliance Section at 505-827-2963 with any questions.

Sincerely,



Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:BR

cc: Christian Krueger, Chino Mines Company (signed PDF copy via electronic mail:
Christian_Krueger@FMI.com)
William Katz, Chief Environmental Engineer, Chino Mines Company (signed PDF copy
via electronic mail: William_Katz@FMI.com)
GRIP (signed PDF copy via electronic mail: grip@gilaresources.info)
Kurt Vollbrecht, Acting Program Manager, GWQB-MECS (signed PDF copy via
electronic mail: kurt.vollbrecht@state.nm.us)
George Llewellyn, GWQB-MECS, Silver City Office (signed PDF copy via
electronic mail: george.llewellyn@state.nm.us)
Chris Eustice, MMD Permit Lead (signed PDF copy via electronic mail:
chris.eustice@state.nm.us)



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

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RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

April 28, 2015

John Brack, President
Freeport-McMoRan Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment, Water Sources for Dust Suppression on Haul Roads at the Chino North Mine Area, DP-376, DP-459, DP-493, DP-526, DP-591 and DP-1568, Freeport-McMoRan Chino Mines Company

Dear Mr. Brack:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport-McMoRan Copper and Gold - Chino Mines Company (permittee) titled, *Amendment Request for Dust Suppression Water Discharge Permits DP-1569, DP-526, DP-459, and DP-376* ("Request"), dated March 24, 2015, and received by NMED on March 27, 2015 with supplemental material received on April 22, 2015. In the Request, the permittee requests permission to use water from five water spouts at the Chino North Mine area for dust suppression on mine haul roads within the boundaries of the Santa Rita Open Pit and adjacent stockpiles. The haul roads fall within areas covered under six operational discharge permits for the Chino North Mine facility, including DP-376 (Lampbright Leach System), DP-459 (North In-Pit Leach System and Santa Rita Open Pit), DP-493 (Reservoir 3A), DP-526 (Whitewater Leach System), DP-591 (SX/EW) and DP-1568 (Lee Hill Stockpile). The facilities covered under the Chino North Mine area discharge permits are located approximately 3 miles northeast of Bayard in Sections 23, 25, 26, 27, 28, 29, 32, 33, 34, 35, and 36, T17S, R12W; Sections 30 and 31, T17S, R11W; and Sections 2, 3, 4, and 5, T18S, R12W, in Grant County.

NMED issues this Discharge Permit Amendment 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 and 20.6.7 NMAC. This Discharge Permit Amendment does not result in significant changes in the quantity or quality of effluent or the

EXHIBIT

tabbles

E8

location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in six Chino North Mine area discharge permits. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.7.14 NMAC and Subsection C of 20.6.2.3109 NMAC have been met.

Background

On June 22, 2012, NMED issued a document to the permittee titled, "Discharge Permit Amendment, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoRan Chino Mines Company." This amendment previously authorized the permittee to use up to 1.5 million gallons per day (MGD) of water from four water spouts located in the North Mine Area for dust suppression on mine haul roads. For the current Request, the permittee seeks to add two additional water sources, the Oswaldo and Star Shafts, to the previously authorized sources. The permittee has also requested to add an additional water spout, the Cafe Queue Spout, to the previously authorized four water spouts, and has requested a discharge volume increase of water used for dust suppression from 1.5 MGD to up to 2.0 MGD which is less than 10% of the cumulative discharges previously approved in the North Mine Area Discharge Permits.

Amendment Description

The five water spouts that Chino proposes to use for dust suppression include the Frog Pond Spout, South Side Spout, Lampbright Spout, Island Queue Spout, and Cafe Queue Spout. Water is supplied to these five spouts from a variety of sources including the Star Shaft and Oswaldo Shaft, LB East and LB Cut wells north of the Lampbright Leach Stockpile, 700R and 593 potable supply wells near the SX/EW Plant, Chino Tailing Pond 7 decant water, water from the Bullfrog Shaft and the Continental Mine delivered via the Bullfrog Pipeline, and Santa Rita Pit dewatering wells. Water quality data for these various wells has been established, or is currently being reported pursuant to applicable Chino and Continental Mine operational discharge permits. Water quality from these sources typically exceeds WQCC standards for TDS, sulfate, iron, manganese and occasionally for pH, fluoride, cobalt, and selenium. The haul roads that water is applied to for dust control typically have acid generating potential, and are within either the open pit surface drainage area or within the footprint of permitted leach stockpiles or acid generating stockpiles where ground and surface water capture is demonstrated. One exception is the Upper South Stockpile which is a cover material stockpile. Dust control on this stockpile is limited to use of water from potable sources only. Dust suppression is a necessary action to meet air quality requirements, and is not expected to result in a net impact to ground or surface water quality within these heavily impacted and active mine areas.

Chino has requested to apply a maximum of 2.0 MGD of water for dust suppression from the five water spouts previously mentioned. Since one water truck may deliver dust suppression water to a haul road that crosses over multiple permit boundaries it is not feasible to track directly how much water is applied for dust suppression within each discharge permit area affected. Therefore, Chino will meter the daily volume of water applied from each of the five water spouts and report weekly volumes to NMED in the semi-annual reports pursuant to DP-459.

Permit Conditions

The amendments to DP-376, DP-459, DP-493, DP-526, DP-591 and DP-1568 are described as follows.

The following Condition shall be included in DP-376, DP-459, DP-493, DP-526, DP-591 and DP-1568.

1. Dust Suppression: The permittee is authorized to use water from the Cafe Queue Spout, Frog Pond Spout, South Side Spout, Lampbright Spout, and the Island Queue Spout for dust suppression within the Santa Rita Open Pit and surrounding Leach and Waste Rock Stockpiles. Water is supplied to the spouts from a variety of sources including the Star Shaft and Oswaldo Shaft, LB East and LB Cut wells north of the Lampbright Leach Stockpile, 700R and 593 potable supply wells near the SX/EW Plant, Chino Tailing Pond 7 decant water, water from the Bullfrog Shaft and the Continental Mine delivered via the Bullfrog Pipeline, and Santa Rita Pit dewatering wells. If at some time in the future the permittee wishes to use an alternate source of dust suppression water or change the location in which discharges have been approved, the permittee shall notify NMED prior to the proposed change.

The following Condition shall be included in DP-526.

1. Dust suppression on haul roads on the Upper South Stockpile will be conducted using water sources that meet New Mexico Water Quality Control Commission standards at 20.6.2.3103 NMAC.

Condition 13.D from DP-459 shall be amended as follows:

- D. Representative Santa Rita Pit dewatering wells used for dust suppression, production wells 700R and 593, the Oswaldo Shaft, and the Bullfrog Shaft shall be sampled as follows:
 - 1) The permittee shall collect samples from each well and shaft annually and analyze for the water parameters listed in Conditions 18B and 18C.

Analytical results and depth to ground water measurements and water level elevations shall be reported as required in Condition 20.

Condition 16 from DP-459 shall be amended by adding Section E as follows:

16. *Discharge Volumes* – The permittee 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 Condition 20. [20.6.2.3107.A NMAC]

- E. The weekly volume of water used for dust suppression from each of five water spouts including the Cafe Queue Spout, Frog Pond Spout, South Side Spout, Lampbright Spout, and Island Queue Spout.

Other Requirements

The terms and conditions contained herein and those in the Discharge Permits that remain unchanged shall be complied with by the permittee 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 the permittee 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 shall be the same as the remaining term of DP-376 (expires June 17, 2015, timely renewal submitted), DP-459 (expires June 10, 2016, modification application submitted), DP-493 (expired June 28, 2011, timely renewal submitted), DP-526 (expired October 3, 2011, timely renewal submitted), DP-591 (expired September 1, 2011, timely renewal submitted), and DP-1568 (expired September 17, 2012, timely renewal submitted), and Chino must submit an application for renewal at least 120 days before the permit expiration date(s). The timely submission of the renewal request(s) keeps the permit(s) and this amendment active until the renewal process is complete. [Subsection F of 20.6.2.3106 NMAC]

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

Please contact Brad Reid of the Mining Environmental Compliance Section (MECS) at 505-827-2963 with any questions.

Sincerely,



Phyllis Bustamante, Acting Chief
Ground Water Quality Bureau

PB:BR

cc: William Katz, Chief Environmental Engineer, Chino Mines Company (signed PDF:
William_Katz@FMI.com)
Kariann Sokulsky, Chino Mines Company (signed PDF:
Kariann_Sokulsky@fini.com@FMI.com)
Christian Krueger, Chino Mines Company (signed PDF:
Christian_Krueger@FMI.com)
Gila Resources Information Project (signed PDF: grip@gilaresources.info)
Kurt Vollbrecht, Program Manager, GWQB-MECS (signed PDF:
kurt.vollbrecht@state.nm.us)
George Llewellyn, GWQB-MECS, Silver City Office (signed PDF:
george.llewellyn@state.nm.us)
Chris Eustice, MMD Permit Lead (signed PDF: chris.eustice@state.nm.us)

John Brack, Lampbright Leach System, DP-376

January 24, 2014

Page 4

Summary of DP-376 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|---|--------------------------------|
| Discharge Permit Renewal and Modification, Lampbright Leach System, DP-376 | June 17, 2010 |
| Discharge Permit Amendment 10-01, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoran Chino Mines Company | June 22, 2010 |
| DP-376 Amendment Approval 10-02, 8 Dam Storm Water Booster Tank, Freeport-McMoran Chino Mines Company | February 4, 2011 |
| Discharge Permit Amendment 10-03, DP-376, Lampbright Leach System Acid Cure Tank, Freeport-McMoran Chino Mines Company | January 24, 2014 |



SUSANA MARTINEZ
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JOHN A. SANCHEZ
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DAVE MARTIN
Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

November 8, 2012

John Brack, General Manager
Tyrone Operations
Freeport- McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

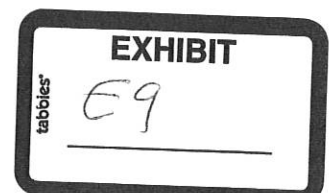
**RE: Discharge Permit Amendment, DP-435, Construction of PLS Collection Well,
Freeport McMoRan Tyrone Mine**

Dear Mr. Brack:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport McMoRan Tyrone, Inc. (Tyrone) titled, *Amendment Request for Discharge Permit DP-435 for PLS Collection Well and Notification for Relocation of Prill Tanks* (Letter) dated June 7, 2012. In the Letter, Tyrone requests to amend the November 7, 2006 Discharge Permit Renewal and Modification (DP-435) for the construction of a new well for the collection of Pregnant Leachate Solution (PLS). The facilities covered under DP-435 are located approximately 12 miles southwest of Silver City, in Sections 14, 15, 16, 21, and 22, T19S, R15W, Grant County, New Mexico.

Well Location and Description

Figure 1 (Location Map) included with the Letter indicates that the proposed PLS extraction well will be located in the eastern portion of the 2A Leach Stockpile about 2,500 feet south of the Solution Extraction/Electro-Winning (SXEW) Feed Pond and will be identified as the West Main 3 PLS Well. The well will intercept flows of PLS coming from the 2A Leach Stockpile about 200 feet below the existing stockpile surface at an approximate elevation of 6,005 feet above mean sea level (amsl). The well head will be located at an approximate elevation of 6,205 feet amsl and will be drilled through about 200 feet of stockpile material, plus an additional 40 feet into bedrock. The well screen will be positioned between 180 and 220 feet deep. PLS



John Brack, Tyrone
November 8, 2012
Page 2

collected from the well will be piped to the SXEW Feed Pond through a newly installed 12" High-Density Polyethylene (HDPE) pipeline.

Amendment Description

Tyrone will construct and operate a PLS extraction well in the eastern portion of the 2A Leach Stockpile to intercept flows of PLS. The well will be drilled through approximately 200 feet of stockpile material plus an additional 40 feet into bedrock, and will be screened at a depth interval of approximately 180 to 220 feet. A submersible well pump will send the collected PLS through approximately 2,650' of newly installed 12 inch High-Density Polyethylene (HDPE) pipe to the SXEW Feed Pond.

Permit Conditions

The following conditions shall be added to the November 7, 2006 Discharge Permit, DP-435. Tyrone shall comply with these conditions, which are enforceable by NMED.

1. Tyrone is authorized to construct and operate the PLS extraction well and associated pipeline in the east portion of the 2A Leach Stockpile that will transfer the PLS to the SXEW Feed Pond. [20.6.2.3109 NMAC]
2. Tyrone shall submit geologic logs and as-built drawings of the PLS extraction well and associated pipeline to NMED within 60 days of completion of construction. [20.6.2.3109 NMAC]
3. Tyrone shall notify NMED immediately if ground water is encountered in the bedrock as the well is being drilled.

Other Requirements

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by Tyrone 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 Tyrone 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 the DP-435 shall be the same as the remaining term of the DP-435. Tyrone shall submit an application for renewal at least 120 days before the permit expiration date. The timely submission of the renewal request keeps the permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

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RYAN FLYNN
Secretary Designate

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 6, 2014

Dan Broderick, Manager
Tyrone Operations
Freeport-McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

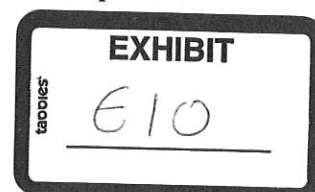
RE: Discharge Permit Amendment 06-02, DP-435, Construction of 9AX Overburden Stockpile and Inclusion in the Waste Rock Characterization and Handling Plan for the 9A Stockpile, Freeport-McMoRan Tyrone Mine

Dear Mr. Broderick:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport-McMoRan Tyrone, Inc. (Tyrone) titled, *Discharge Permit 435 (DP-435) Amendment Request to Include the 9AX Overburden Stockpile in the Waste Rock Characterization and Handling Plan for the 9A Stockpile* (Letter) dated May 6, 2014. In the Letter, Tyrone requests to amend the November 7, 2006 Discharge Permit, DP-435 for the construction of the 9AX Overburden Stockpile (9AX Stockpile) and inclusion of the 9AX Stockpile in the Waste Rock Characterization and Handling Plan for the 9A Stockpile. The facilities covered under DP-435 are located approximately 12 miles southwest of Silver City, in Sections 14, 15, 16, 21, and 22, T19S, R15W, Grant County, New Mexico.

Amendment Description

The proposed 9AX Stockpile will be located at the northwest corner of the existing 9A Stockpile and will essentially be an expansion of the 9A Stockpile. At completion, the 9AX Stockpile will occupy approximately 60 acres, with approximately 14 of those acres occurring on (overlapping) the existing 9A Stockpile. The Letter requests that the 9AX Stockpile be included in the Waste Rock Characterization and Handling Plan for the 9A Stockpile (Plan), which was required by Condition 10 of DP-435 and was approved by NMED on November 6, 2012. The Plan requires



that any waste rock placed on the 9A Stockpile be characterized to insure that it is non-acid generating.

Permit Conditions

The following conditions shall be added to the November 7, 2006 Discharge Permit, DP-435. Tyrone shall comply with these conditions, which are enforceable by NMED.

1. Tyrone is authorized to construct the 9AX Stockpile as described in the May 6, 2014 amendment request. The footprint of the proposed 9AX Stockpile shall conform to the configuration shown on Figure 1 attached to the request. Tyrone may expand the footprint or land surface area of the 9AX Stockpile only for the purpose of facility closure as approved through the Supplemental Discharge Permit for Closure DP-1341, or through a permit amendment or modification to DP-435. [20.6.2.3109 NMAC]
2. Tyrone shall characterize all waste rock placed on the 9AX Stockpile in accordance with the approved Waste Rock Characterization Handling Plan required by Condition 10 of DP-435. Only non-acid generating waste rock from the Little Rock Mine Pit may be placed on the 9AX Stockpile.
3. Tyrone shall maintain a buffer between the southeast margin of the 9AX Stockpile and the 2A West PLS Collection Pond in a manner that does not compromise the integrity of the collection pond

Other Requirements

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by Tyrone 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 Tyrone 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-435 shall be the same as the term of DP-435 issued on November 7, 2006. The timely submission of the renewal request on April 22, 2005 keeps the existing permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

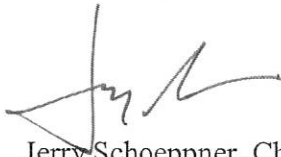
Approval of this Discharge Permit Amendment does not relieve Tyrone of its responsibility to comply with the Water Quality Act (WQA), the WQCC Regulations, and any other applicable federal, state, and/or local laws and regulations.

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

Dan Broderick, Tyrone
June 6, 2014
Page 3

Please contact Keith Ehlert of the Mining Environmental Compliance Section at 505-827-9687 with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jerry Schoeppner', with a stylized flourish at the end.

Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:kv/ke

xc: Kurt Vollbrecht, Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
Sally Smith, GRIP



BILL RICHARDSON
GOVERNOR

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



RON CURRY
SECRETARY

CINDY PADILLA
DEPUTY SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

February 9, 2007

Thomas L. Shelley
Environment, Land & Water
New Mexico Operations
Phelps Dodge Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

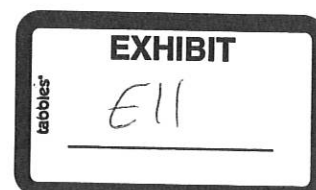
**RE: Discharge Permit 455 (DP-455) Amendment Approval, Gettysburg Leach System
Monitoring Plan Amendment Request, Phelps Dodge Tyrone, Inc.**

Dear Mr. Shelley:

In a letter titled "*Discharge Permit 455 (DP-455) Gettysburg Pit and Leach System Amendment Request*" (Letter) dated January 19, 2007, Phelps Dodge Tyrone, Inc. (Tyrone) requests amendment of the Discharge Permit 455 (DP-455). The Letter requests to change from a quarterly to a semi-annual reporting frequency and keep signed laboratory analyses onsite rather than submitting them with the reports. The Letter also requests that monitoring of water in the Gettysburg Pit be eliminated because the same water is sampled at the Gettysburg Collection Pond.

Pursuant to the Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC) this request to amend DP-455 for the above referenced facility is hereby approved, subject to the conditions listed below. The renewal of DP-455 was approved on December 13, 2004. The Gettysburg Pit and Leach System is located approximately 12 miles south of Silver City in Sections 23, 24, 25 and 26, T19S, R15W in Grant County. In approving this Discharge Permit Amendment, NMED has determined that the requirements of 20.6.2.3109 NMAC have been met.

The approved amendments for the Gettysburg Pit and Leach System Discharge Permit are described as follows.



PERMIT CONDITIONS

Pipeline Operation:

The December 13, 2005 Discharge Permit Condition 4 of DP-455 reads as follows.

4. *PDTI shall operate all PLS, raffinate and process water pipelines in a manner to prevent their discharge to areas not authorized by this Discharge Permit. Upon discontinuing the operation of a pipeline or prior to moving a pipeline, all PLS, raffinate 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 to ensure residual contaminants are removed. Discharges of PLS, raffinate 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 quarterly in accordance with Condition 10E. [20.6.2.3109 NMAC]*

This condition shall be changed to read as follows.

4. *PDTI shall operate all PLS, raffinate and process water pipelines in a manner to prevent their discharge in areas not authorized by this Discharge Permit. Upon discontinuing the operation of a pipeline or prior to moving a pipeline, all PLS, raffinate 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, raffinate 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 Condition 16F. [20.6.2.3109 NMAC]*

Sampling and Field Measurements:

Condition 10 reads as follows.

10. PLS Collection Ponds – The Gettysburg and 7B PLS collection ponds shall be sampled as follows:

- A. *PDTI shall record the elevation of the water level in the Gettysburg Pit collection pond to the nearest hundredth of a foot (0.01 ft) above msl, quarterly.*
- B. *PDTI shall collect samples from the Gettysburg Pit and 7B collection ponds quarterly and analyze for the water parameters listed in Conditions 14A and 14B below.*

Analytical results and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

The condition shall be replaced as follows.

10. PLS Collection Pond – The 7B PLS collection pond shall be sampled as follows:

- A. PDTI shall collect samples from the 7B collection pond semi-annually and analyze for the water parameters listed in Condition 14B below.*

Analytical results shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

Condition 11 reads as follows.

11. Ground Water Monitoring Wells – Monitoring wells GLD 2A (replacement), GLD-3A, GLD-5A, and GLD-7A (replacement) shall be sampled as follows:

- A. PDTI shall record the depth to the water table and elevation above msl to the nearest hundredth of a foot (0.01 ft), quarterly.*
- B. PDTI shall collect samples from each well quarterly and analyze for the water parameters listed in Conditions 14A and 14B below.*

Analytical results, depth to water level measurements and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

This condition shall be replaced with the following.

11. Ground Water Monitoring Wells – Monitoring wells GLD-3A, GLD-5A, GLD-7A, 455-2005-01 and 455-2005-02 shall be sampled as follows:

- A. PDTI shall record the depth to the water table and elevation above msl to the nearest hundredth of a foot (0.01 ft), quarterly.*
- B. PDTI shall collect samples from each well quarterly and analyze for the water parameters listed in Conditions 14A and 14B below.*

Analytical results, depth to water level measurements and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

Condition 12 reads as follows.

12. Pit Water – Accumulated water in the bottom of the Gettysburg Pit shall be sampled as follows:

- A. *PDTI shall record the elevation of the water level to the nearest hundredth of a foot (0.01 ft), quarterly.*
- B. *PDTI shall collect a sample from accumulated pit water quarterly and analyze for the water parameters listed in Conditions 14A and 14B below.*

Analytical results and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

This condition shall be replaced with the following.

12. Pit Water – Accumulated water and PLS in the bottom of the Gettysburg Pit (Gettysburg PLS Pond) shall be sampled as follows:

- A. *PDTI shall record the elevation of the water level to the nearest hundredth of a foot (0.01 ft), quarterly.*
- B. *PDTI shall collect samples from the Gettysburg PLS Pond in the pit bottom quarterly and analyze for the water parameters listed in Conditions 14B below.*

Analytical results and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

Analysis:

Condition 14 reads as follows.

14. PDTI shall analyze samples of ground water and pit water for the parameters listed below. Samples of pit water and PLS shall be analyzed for total and dissolved concentrations of the analytes listed below and shall exclude field parameters. Samples of ground water shall be analyzed for dissolved concentrations of the analytes listed below.

- A. *Field parameters (analysis to be performed in the field): temperature, pH, and specific conductance.*
- B. *Comprehensive inorganic parameters: alkalinity-bicarbonate, alkalinity-carbonate, calcium, magnesium, sodium, sulfate, potassium, fluoride, chloride, total dissolved solids, aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel and zinc. [20.6.2.3107 NMAC]*

This condition shall be replaced with the following:

14. PDTI shall analyze samples of ground water, pit water and PLS for the parameters listed below and as required by the schedule attached in Table 2. Samples of pit water and PLS shall be analyzed for total and dissolved concentrations of the metal parameters and metallic

general chemistry parameters listed below and shall exclude field parameters. Samples of ground water from monitoring wells shall be analyzed for dissolved concentrations of the metal parameters and metallic general chemistry parameters listed below. Analytes that are to be analyzed only for total concentration are noted in the lists.

- A. *Group 1: Field parameters (analysis to be performed in the field): water level, temperature, pH and electrical conductivity.*
- B. *Comprehensive inorganic parameters: calcium, sulfate (total), magnesium, chloride (total), alkalinity-carbonate (total), alkalinity-bicarbonate (total), fluoride (total), sodium, potassium and total dissolved solids, aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel and zinc. [20.6.2.3107 NMAC]*

Reporting:

Condition 16 reads as follows:

- 16. *PDTI shall submit to NMED a quarterly report by the last day of February, May, August and November of each year. Information due semi-annually shall be submitted by the last day of March and September and information due annually shall be submitted by the last day of September. Reports shall use the following format:*
 - A. *A summary of all activities related to the discharge during the preceding quarter. Activities may include general operations, discharge volumes, changes in daily flow rates, spills, maintenance, repairs, well drilling, water management, construction or demolition of structures, addition of leach material, water quality and water level trends, and precipitation patterns.*
 - 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 a single event shown in columns. Tabulated electrical conductivity shall include the measured field values and corrected values to 25 degrees Celsius. Monitoring sites shall be shown in rows. Values exceeding standards shall be bolded. Any constituent not analyzed for a 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.*
 - C. *A single table as described in Condition 16B above that includes all available ground water data to date shall be submitted annually. 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. Copies of the signed laboratory analyses sheet shall be provided quarterly. Daily volumes of acid leach solution applied to the No. 1B Leach Stockpile and PLS pumped from the Gettysburg and 7B collection ponds shall be reported quarterly.
- E. A potentiometric map for the Tyrone Mining Area shall be submitted semi-annually. The map shall incorporate the most recent water level data for the regional aquifer for all monitoring wells reporting under DP-166, DP-286, DP-363, DP-383, DP-396, DP-435, DP-455, DP-670 and DP-896.
- F. A report describing all pipeline movement or removal. Details must include the date, approximate location and length of the affected pipeline, and the type of operational change that occurred. The approximate volume, type and discharge location of the fluid removed from the pipeline must be included for each event. [20.6.2.3107 NMAC]

This condition shall be replaced as follows.

16. PDTI shall submit to NMED monitoring reports containing information collected during the preceding quarters as follows:

- 1st Quarter and 2nd Quarter monitoring data on or before July 31st.
- 3rd Quarter and 4th Quarter monitoring data on or before January 31st.

PDTI shall submit to NMED the information required annually with the 3rd and 4th Quarter monitoring data on or before January 31st.

- A. A summary of all activities related to the discharge during the preceding quarter. Activities may include general operations, discharge volumes, changes in daily flow rates, spills, maintenance, repairs, well drilling, water management, construction or demolition of structures, addition of leach material, water quality and water level trends, and precipitation patterns.
- 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 a single event shown in columns. Tabulated electrical conductivity shall include the measured field values and corrected values to 25 degrees Celsius. Monitoring sites shall be shown in rows. Values exceeding standards shall be bolded. Any constituent not analyzed for a 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.
- C. A single table as described in Condition 15B above that includes all available ground water ground water data to date shall be submitted annually. 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. Copies of the signed laboratory analyses sheets shall be maintained at the site and made available to NMED staff upon request. Daily volumes of acid leach solution applied to the 6C and 7B Leach Stockpiles, and PLS and Pit Water pumped from the Gettysburg and 7B collection ponds shall be reported semi-annually.*
- E. A potentiometric map for the Tyrone Mining Area shall be submitted semi-annually. The map shall incorporate the most recent water level data for the regional aquifer for all monitoring wells reporting under DP-166, DP-286, DP-363, DP-383, DP-396, DP-435, DP-455, DP-670 and DP-896.*
- F. A report describing all pipeline movement or removal. Details must include the date, approximate location and length of the affected pipeline, and the type of operational change that occurred. The approximate volume, type and discharge location of the fluid removed from the pipeline must be included for each event. [20.6.2.3107 NMAC]*

Record Keeping:

Part D of Condition 24 reads as follows.

- D. The name and address of the laboratory and the name and job title of the person who performed the analysis of each sample;*

This condition shall be replaced as follows.

- D. The name and address of the laboratory and the name and job title of the person who reviewed the analysis of each sample;*

Tables:

Tables 1 & 2 in the December 13, 2004 permit shall be replaced with the amended Tables 1 & 2 attached to this letter.

OTHER REQUIREMENTS

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by Tyrone 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 Tyrone 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

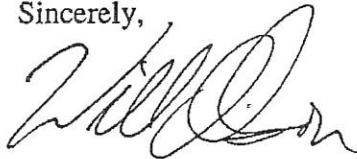
Pursuant to 20.6.2.3109.H.4 NMAC, the term of this Discharge Permit Amendment for the DP-383 shall be the same as the remaining term of the Discharge Permit DP-383, which will expire on December 13, 2009. Tyrone must submit an application for renewal at least 120 days before the permit expiration date. The timely submission of the renewal request keeps the permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

Approval of this Discharge Permit Amendment does not relieve Tyrone 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 Tyrone intends to change the disposition of any discharge relating to this amendment, Tyrone is required to notify NMED prior to changing the discharge.

Please contact Clint Marshall of the Mining Environmental Compliance Section at 505-827-0027 with any questions.

Sincerely,



William Olson, Chief
Ground Water Quality Bureau

WO/CLM

xc: Mary Ann Menetrey, Program Manager, MECS-GWQB
DP-455 Correspondence file

**DP-455 GETTYSBURG PIT AND LEACH SYSTEM
AMENDED MONITORING SUMMARY AND SCHEDULE**

Monitoring Reports are due by: 31-JAN and 31-JUL

Table 1: Reporting Summary

| Annual Sampling Frequency | Annual Reporting Frequency | Number of Sites | Sampling Description |
|---------------------------|----------------------------|-----------------|---|
| 4 | 2 | 7 | Water levels in 5 monitoring wells and pit bottom quarterly. |
| 4 | 2 | 5 | Quarterly in 5 monitoring wells and pit bottom: Field parameters: temperature, pH, and specific conductance. Comprehensive inorganic parameters: alkalinity- bicarbonate (total), alkalinity- carbonate (total), calcium, magnesium, sodium, sulfate (total), potassium, fluoride, chloride (total), total dissolved solids (total), aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel, and zinc. |
| 2 | 2 | 2 | Semi-annually in 7B PLS Pond: Comprehensive inorganic parameters: alkalinity- bicarbonate (total), alkalinity- carbonate (total), calcium, magnesium, sodium, sulfate (total), potassium, fluoride, chloride (total), total dissolved solids (total), aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel, and zinc. |
| NA | 2 | 3 | Volumes: raffinate to Gettysburg stockpile; PLS from Gettysburg and 7B collection ponds Daily. |
| NA | 2 | NA | Potentiometric map. Semi-annually. |
| NA | 1 | NA | Cumulative analyses report. Annually. |
| NA | 2 | NA | Activities reported. Semi-annually. |

Table 2: Monitoring Schedule

| Site ID | type | Sampling | | | | Notes |
|---------------------------------|------|----------|-----|-----|-----|--------------------|
| | | Q1 | Q2 | Q3 | Q4 | |
| GLD-2A | mw | ABW | ABW | ABW | ABW | abandoned |
| GLD-3A | mw | ABW | ABW | ABW | ABW | |
| GLD-5A | mw | ABW | ABW | ABW | ABW | |
| GLD-7A | mw | ABW | ABW | ABW | ABW | |
| 455-2005-01 | mw | ABW | ABW | ABW | ABW | |
| 455-2005-02 | mw | ABW | ABW | ABW | ABW | |
| Gettysburg Pond (pit bottom) | pw | BW | BW | BW | BW | pit water & PLS |
| 7B PLS Pond | pw | B | | B | | |

Explanation to Abbreviations and Symbols

| | |
|--|--|
| <u>Type:</u> mw = monitoring well ew = extraction well sw = surface water pw = process water sp = seep | <u>Sampling Quarter:</u> Q1 = Jan – Mar Q2 = Apr – Jun Q3 = Jul – Sep Q4 = Oct - Dec |
| Sampling Analytical Suites: A. Field parameters (analysis to be performed in the field): temperature, pH, and specific conductance. B. Comprehensive inorganic parameters: alkalinity- bicarbonate (total), alkalinity-carbonate (total), calcium, magnesium, sodium, sulfate (total), potassium, fluoride, chloride (total), total dissolved solids (total), aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel, and zinc. C = Other parameters as required by NMED W = Depth to water or water level to nearest 0.01 feet. | |



NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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Governor
DIANE DENISH
Lieutenant Governor

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William C. Olson, Bureau Chief



RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 15, 2008

Richard N. Mohr, Manager
Tyrone Operations
Freeport- McMoran Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

**RE: DP-455 Amendment Approval, Gettysburg Pit and Leach System, Required
Operating Pit Lake Levels, Freeport-McMoran Tyrone Operations, Inc.**

Dear Mr. Mohr:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoran Tyrone, Inc. (Tyrone) titled, *Discharge Permit 455 (DP-455) Gettysburg Pit and Leach System Amendment Request* (Letter) dated May 8, 2008. In the Letter, Tyrone requests amendment of DP-455 to maintain pit lake levels below the water levels of a new group of recently drilled monitoring wells located on the east side of the pit. The Gettysburg Pit and Leach System is located approximately 12 miles south of Silver City in Sections 25, 26 and 27, T19S, R15W in Grant County.

The Amendment of DP-455 is described as follows:

Tyrone requests to resume leach operations on the 6C and 7B Leach Stockpiles where pregnant leach solution (PLS) from these stockpiles is collected, in whole or in part, in the Gettysburg Pit bottom. Leaching operations were suspended in 2007 because PLS levels in the Gettysburg Pit bottom exceeded water level elevations in the adjacent monitoring well GLD-7A, located on the east rim of the pit. As part of a hydrologic investigation conducted in early 2008, Tyrone drilled three new monitoring wells, 455-2007-01, 455-2008-02, and 455-2008-03 located on the 5700 bench on the east side near the pit bottom. The current water levels in the three new wells are at a minimum eight feet above the level of the pit lake. Tyrone requests to amend Condition 5 of

EXHIBIT

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DP-455, dated December 13, 2004, to require pit lake levels be maintained below the water levels in these three new wells, replacing monitoring wells GLD-3A and GLD-7A.

Pursuant to the Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC) this request to amend DP- 455 for the above referenced facility is hereby approved, subject to the conditions listed below. The renewal of DP-455 was approved on December 13, 2004 and amended on March 31, 2005 and February 9, 2007. In approving this Discharge Permit Amendment, NMED has determined that the requirements of 20.6.2.3109 NMAC have been met.

PERMIT CONDITIONS

Pit PLS Levels

Condition 5 of the current December 13, 2004 Discharge Permit, DP-455, reads as follows.

5. *PDTI shall maintain the fluid level of PLS in the bottom of the Gettysburg Pit below the water level in the surrounding monitoring wells GLD-3A, GLD-5A and EM-2, and the replacement wells for GLD-2A and GLD-7A. In no case shall the PLS fluid level exceed 5700 feet above mean sea level (msl). [20.6.2.3109 NMAC]*

This condition shall be amended to read as follows.

5. *Tyrone shall maintain the fluid level of PLS in the bottom of the Gettysburg Pit 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 above mean sea level (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]*

Sampling and Field Measurements

Condition 11 of the current December 13, 2004 Discharge Permit, DP-455 as amended on February 9, 2007, reads as follows.

11. Ground Water Monitoring Wells - Monitoring wells GLD 3A, GLD-5A, GLD-7A, 455-2005-01 and 455-2005-02 shall be sampled as follows:
 - A. *PDTI shall record the depth to the water table and elevation above msl to the nearest hundredth of a foot (0.01 ft), quarterly.*
 - B. *PDTI shall collect samples from each well quarterly and analyze for the water parameters listed in Conditions 14A and 148B below.*

Analytical results, depth to water level measurements and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

This condition shall be amended to read as follows.

11. Ground Water Monitoring Wells - Monitoring wells GLD-3A, GLD-5A, GLD-7A, EM-2455-2005-01, 455-2005-02, 455-2007-01, 455-2008-02, and 455-2008-03 shall be sampled as follows:

- A. Tyrone shall record the depth to the water table and elevation above msl to the nearest hundredth of a foot (0.01 ft), quarterly. Water levels in monitoring wells 455-2007-01, 455-2008-02, and 455-2008-03 shall be measured monthly.*
- B. Tyrone shall collect samples from each well quarterly and analyze for the water parameters listed in Conditions 14A and 148B below. Samples in monitoring wells 455-2008-02 and 455-2008-03 shall be analyzed only for the parameters in Condition 14A.*

Analytical results, depth to water level measurements and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

Condition 12 of the current December 13, 2004 Discharge Permit, DP-455 as amended on February 9, 2007, reads as follows.

12. Pit Water – Accumulated water and PLS in the bottom of the Gettysburg Pit (Gettysburg PLS Pond) shall be sampled as follows:

- A. PDTI shall record the elevation of the water level to the nearest hundredth of a foot (0.01 ft), quarterly.*
- B. PDTI shall collect samples from the Gettysburg PLS Pond in the pit bottom quarterly and analyze for the water parameters listed in Conditions 14B below.*

Analytical results and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

This condition shall be amended as follows.

12. Pit Water – Accumulated water and PLS in the bottom of the Gettysburg Pit (Gettysburg PLS Pond) shall be sampled as follows:

- A. PDTI shall record the elevation of the water level to the nearest hundredth of a foot (0.01 ft), monthly.*
- B. PDTI shall collect samples from the Gettysburg PLS Pond in the pit bottom quarterly and analyze for the water parameters listed in Conditions 14B below.*

Analytical results and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

Operational Failures

Condition 19 of the current December 13, 2004 Discharge Permit, DP-455, reads as follows.

19. In the event of a pipeline break, pump failure, pond overflow or other system failure at the facility, the PLS and raffinate 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, replaced or temporarily replaced with an interim remedy as soon as possible and no later than 72 hours from the time of failure. [20.6.2.3107A(10) NMAC]

This condition shall be amended to include Condition 19, Subpart A as follows.

19. In the event of a pipeline break, pump failure, pond overflow or other system failure at the facility, the PLS and raffinate 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, replaced or temporarily replaced with an interim remedy as soon as possible and no later than 72 hours from the time of failure.

A. In the event of a heavy rainfall event or operational failure, Tyrone is permitted to allow the Gettysburg pit lake level to exceed 5630 feet above msl to a maximum level of 5650 feet above msl. Tyrone shall return the pit lake level to below 5630 feet within 14 days after the initial excursion. In the event Tyrone is unable to return the pit lake 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 lake to its permitted operating level. [20.6.2.3107A(10) NMAC]

OTHER REQUIREMENTS

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by Tyrone 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 Tyrone 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 the DP-455 shall be the same as the remaining term of the DP-455, which will expire on December 13, 2009. Tyrone must submit an application for renewal at least 120 days before the permit expiration date. The timely submission of the renewal request keeps the permit and this

Richard N. Mohr, FMTI
May 15, 2008
Page 5 of 5

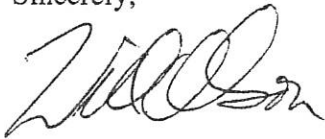
amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

Approval of this Discharge Permit Amendment does not relieve Tyrone 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 Tyrone intends to change the disposition of any discharge relating to this amendment, Tyrone is required to notify NMED prior to changing the discharge.

Please contact Clint Marshall of the Mining Environmental Compliance Section at 505-827-0027 with any questions.

Sincerely,



William Olson, Chief
Ground Water Quality Bureau

WO/CLM

xc: Mary Ann Menetrey, Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
DP-455 Correspondence File



NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

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www.nmenv.state.nm.us
William C. Olson, Bureau Chief



RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

December 11, 2009

Richard N. Mohr, Manager
Tyrone Operations
Freeport- McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

**RE: Discharge Permit Amendment, DP-455, Reconfigured PLS Collection System on the
6C Leach Stockpile, Freeport-McMoRan Tyrone Mine**

Dear Mr. Mohr:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Tyrone, Inc. (Tyrone) titled, *Amendment Request for Discharge Permit DP-455* (Letter) dated October 2, 2009. In the Letter, Tyrone requests to amend the December 13, 2004 Discharge Permit Renewal and Modification (DP-455) for the construction and operation of a reconfigured pregnant leach solution (PLS) collection system on the 6C Leach Stockpile. The system was constructed and began operation prior to NMED approval. This approval fulfills Tyrone's remaining obligations for corrective actions required pursuant to Water Quality Control Commission (WQCC) Regulation 1203. The facilities covered under DP-455 are located approximately 10 miles south of Silver City in Sections 25, 26 and 27, T19S, R15W in Grant County, New Mexico.

Background

The incidents leading up to this discharge permit amendment began in June 2009. Tyrone sent NMED a written notification and corrective action report dated June 19, 2009 for a release of approximately four million gallons of PLS into the Gettysburg Pit. Upon further inquiry, NMED determined that the release was due to a failed conveyance system that was transferring PLS from a newly constructed PLS collection system on the upper edge of the 6C Leach Stockpile to 6C-2 PLS pond and booster station. The release of PLS and sediment occurred as part of a slope

EXHIBIT

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E13

failure when the flank of the 6C Leach Stockpile became over-saturated. The 6C PLS collection and conveyance system was not approved by NMED for construction or operation at the time of the release. NMED issued a Notice of Non-Compliance on September 2, 2009, requiring additional corrective actions and a discharge permit amendment to incorporate the new facility into DP-455. Tyrone submitted to NMED a supplemental corrective action report on October 1, 2009, and a discharge permit amendment request on October 2, 2009. The corrective actions related to the release will be addressed under a separate cover.

The Amendment of DP-455 is described as follows.

The top surface of the 6C Leach Stockpile (at the time of construction) was covered with several feet of compacted clay to form a low permeable liner to collect PLS. A perched PLS pond was constructed at the upper north edge of the stockpile at the 6290 foot level. Through grading and placement of the clay, the top surface of the stockpile was configured to direct PLS to the perched PLS collection pond. A lift of approximately 40 feet of leach material was then placed on the prepared liner for leaching. Additional lifts will be added in the future. PLS reporting to the collection system is directed to a 24-inch pipeline, which subsequently reduces to 18 inches and terminates at the 6C-2 lined Collection Pond and Booster Station. Application of raffinate to the top of the 6C Leach Stockpile will not exceed 4,400 gallons per minute (gpm). The gravity flow pipeline from the stockpile to the 6C-2 collection pond is capable of delivering 12,000 gpm. An energy dissipating device is connected at the end of the pipeline to minimize turbulence and prevent damage to the 6C-2 Collection Pond.

Permit Conditions

The following conditions shall be added to the December 13, 2004 Discharge Permit, DP-455. Tyrone shall comply with these conditions, which are enforceable by NMED.

1. Tyrone is authorized to construct and operate the 6C perched PLS collection and conveyance system. [20.6.2.3109 NMAC]
2. Tyrone is authorized to discharge up to a maximum of 6,336,000 gallons per day (4,400 gpm) of raffinate to the top of the 6C Leach Stockpile. [20.6.2.3109 NMAC]

Other Requirements

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by Tyrone 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 Tyrone of liability should its operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations.



BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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William C. Olson, Bureau Chief



RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

March 1, 2010

Richard N. Mohr, Manager
Tyrone Operations
Freeport- McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

**RE: Discharge Permit Amendment, DP-455, Installation of Side Slope PLS Collection
Sump on the 7B Leach Stockpile, Freeport-McMoRan Tyrone Mine**

Dear Mr. Mohr:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Tyrone, Inc. (Tyrone) titled, *Amendment Request for Discharge Permit DP-455; 7B Stockpile Sideslope Seepage Collection* (Letter) dated February 26, 2010. In the Letter, Tyrone requests to amend the December 13, 2004 Discharge Permit Renewal and Modification (DP-455) for the construction and operation of a pregnant leach solution (PLS) side slope collection sump on the 7B Leach Stockpile. The facilities covered under DP-455 are located approximately 10 miles south of Silver City in Sections 25, 26 and 27, T19S, R15W in Grant County, New Mexico.

Background

Seepage of PLS has been emerging along the upgradient side of a haul road constructed on the northeast side slope of the 7B Leach Stockpile. PLS periodically emerges along the haul road, but normally re-infiltrates back into the stockpile and is collected in the 7B PLS Pond located directly downgradient. Due to recent storm events the seepage flow rate has increased, therefore Tyrone is requesting the construction of a permanent collection system to manage the seepage.

EXHIBIT

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E14

The Amendment of DP-455 is described as follows.

Tyrone will construct an earthen sump above the haul road that is constructed into and along the northeast flank of the 7B Leach Stockpile. The purpose of the sump is to collect PLS seepage that has been emerging along the upgradient side of the road. A high density polyethylene (HDPE) pipeline will be installed connecting the sump to the 7B PLS Pond located directly downgradient of the sump.

Permit Conditions

The following conditions shall be added to the December 13, 2004 Discharge Permit, DP-455. Tyrone shall comply with these conditions, which are enforceable by NMED.

1. Tyrone is authorized to construct and operate the 7B Side Slope PLS Collection Sump, which will which will transport PLS to 7B PLS Pond. [20.6.2.3109 NMAC]
2. Tyrone shall submit as-built plans of the sump and associated pipeline to NMED within 60 days of completion of construction. [20.6.2.3109 NMAC]

Other Requirements

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by Tyrone 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 Tyrone 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 the DP-455 shall be the same as the remaining term of the DP-455. Tyrone has submitted an application for renewal at least 120 days before the permit expiration date. The timely submission of the renewal request keeps the permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

Approval of this Discharge Permit Amendment does not relieve Tyrone 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 Tyrone intends to change the disposition of any discharge relating to this amendment, Tyrone is required to notify NMED prior to changing the discharge.

Richard N. Mohr, Tyrone
March 1, 2010
Page 3 of 3

Please contact Clint Marshall of the Mining Environmental Compliance Section at 505-827-0027 of with any questions.

Sincerely,

May E.C.M.T for:

William Olson, Chief
Ground Water Quality Bureau

WCO:mam/clm

xc: Mary Ann Menetrey, Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
Sally Smith, GRIP



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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www.nmenv.state.nm.us



DAVE MARTIN
Secretary

BUTCH TONGATE
Acting Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

November 28, 2011

Richard N. Mohr, Manager
Tyrone Operations
Freeport- McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

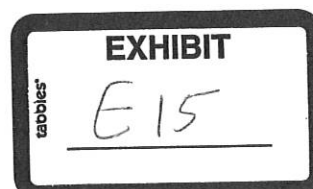
RE: Discharge Permit Amendment, DP-455, Construction of PLS Booster Station on Crest of 6C Stockpile, Freeport-McMoRan Tyrone Mine

Dear Mr. Mohr:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Tyrone, Inc. (Tyrone) titled, *Amendment Request for Discharge Permit DP-455; PLS Booster Station on Crest of 6C Stockpile* (Letter) dated October 19, 2011. In the Letter, Tyrone requests to amend the August 17, 2010 Discharge Permit Renewal and Modification (DP-455) for the construction and operation of a Pregnant Leach Solution (PLS) booster station on the crest of the 6C stockpile between Gettysburg and Savanna Pits at an elevation of 6150 feet. The facilities covered under DP-455 are located approximately 10 miles south of Silver City in Sections 25, 26 and 27, T19S, R15W in Grant County, New Mexico.

Background

Tyrone currently operates the 7B PLS Pond to collect and transfer PLS from the 7B leach stockpile to the solution extraction/electrowinning plant. Storm water, PLS and surfacing groundwater that collects in the Gettysburg Pit is also pumped via the 6C-2 Booster to the 7B PLS Pond. The proposed new PLS Booster Station is intended to replace the 7B PLS Pond which will be eliminated at a future date due to expansion of the 6B and 7B leach stockpiles. The leach stockpile expansion has been the subject of ongoing discussions between Tyrone and NMED and will be addressed in future permit changes.



Amendment Description

Tyrone will construct a new PLS Booster Station at an elevation of 6150 feet on the crest of the 6C Stockpile (6150 Booster) consisting of a single HDPE lined pond with a capacity of 1.7 million gallons, two barge pumps, and an infiltration sump which will receive PLS through an overflow channel in the event PLS overflows the lined pond during upset conditions. The infiltration sump will be designed to allow the PLS to report to an existing PLS collection area at the bottom of the Gettysburg Pit.

Permit Conditions

The following conditions shall be added to the August 17, 2010 Discharge Permit, DP-455. Tyrone shall comply with these conditions, which are enforceable by NMED.

1. Tyrone is authorized to construct and operate the PLS Booster Station and infiltration sump on the crest of the 6C Stockpile, along with associated pipelines. [20.6.2.3109 NMAC]
2. Tyrone shall submit as-built plans of the PLS Booster Station, infiltration sump, and associated pipelines to NMED within 60 days of completion of construction. [20.6.2.3109 NMAC]

Other Requirements

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by Tyrone 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 Tyrone 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 the DP-455 shall be the same as the remaining term of the DP-455. Tyrone shall submit an application for renewal at least 120 days before the permit expiration date. The timely submission of the renewal request keeps the permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

Approval of this Discharge Permit Amendment does not relieve Tyrone 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.

Richard N. Mohr, Tyrone
October 26, 2011
Page 3

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

Please contact Keith Ehlert of the Mining Environmental Compliance Section at 505-827-9687 with any questions.

Sincerely,

A handwritten signature in black ink, appearing to be 'JS' followed by a stylized flourish.

Jerry Schoeppner, Acting Chief
Ground Water Quality Bureau

JS:mam/ke

xc: Mary Ann Menetrey, Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
Sally Smith, GRIP

Period of Approval

Pursuant to 20.6.2.3109.H.4 NMAC, the term of this Discharge Permit Amendment for the DP-455 shall be the same as the remaining term of the DP-435, which will expire on December 13, 2009. Tyrone must submit an application for renewal at least 120 days before the permit expiration date. The timely submission of the renewal request keeps the permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

Approval of this Discharge Permit Amendment does not relieve Tyrone 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 Tyrone intends to change the disposition of any discharge relating to this amendment, Tyrone is required to notify NMED prior to changing the discharge.

Please contact Clint Marshall of the Mining Environmental Compliance Section at 505-827-0027 if with any questions.

Sincerely,



William Olson, Chief
Ground Water Quality Bureau

WCO:mam/clm

xc: Mary Ann Menetrey, Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
Sally Smith, GRIP



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

Harold Runnels Building, N2050
1190 South St. Francis Drive (87505)
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RYAN FLYNN
Secretary Designate

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

December 6, 2013

Dan Broderick, Manager
Tyrone Operations
Freeport- McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

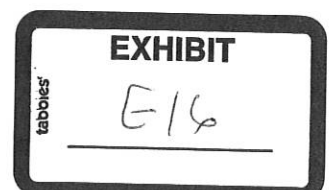
RE: Discharge Permit Amendment 10-02, DP-455; Increase Operational and Maximum Fluid Levels in the 6A PLS Collection Pond, Savannah Pit, Freeport–McMoRan Tyrone Mine

Dear Mr. Broderick:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Tyrone, Inc. (Tyrone) titled, *DP-455 Amendment Request* (Request) dated November 20, 2013. Tyrone requests to amend the August 17, 2010 Discharge Permit, DP-455 to allow an increase in the permitted operational and maximum levels of pregnant leach solution (PLS) in the 6A PLS collection pond. The requested increase is required because at its current location, the barge pump used to maintain pit fluid levels is susceptible to rock fall damage from ongoing highwall instability, and in order to relocate the barge pump, it is necessary to raise the level of the fluids in the collection pond. The facilities covered under DP-455 are located approximately 10 miles south of Silver City in Sections 22, 23, 25, 26 and 27, T19S, R15W, Grant County, New Mexico.

Amendment Description

DP-455 was modified on May 14, 2013 to allow construction of the 6A leach stockpile within the Savannah Pit. Condition 2 of the modification requires Tyrone to maintain normal operational fluid levels at the 6A PLS collection pond at surface elevations ranging from 5,630 to 5,640 feet, and a maximum fluid surface elevation of 5,660 feet during upset conditions. Tyrone



requests to amend DP-455 to allow the operational surface fluid level elevations to range from 5,670 to 5,690 feet, and a maximum fluid surface elevation of 5,700 feet during upset conditions.

The Request includes a report by Daniel B. Stephens & Associates (DBS&A) indicating that the increase in the permitted operational and maximum ponded fluid elevations at the 6A PLS collection pond will not have a significant influence on the hydrogeology in the vicinity of the Savannah Pit and groundwater beneath the Savannah Pit will continue to flow to, and discharge at, the Main Pit.

Permit Conditions

The following conditions shall be added to the August 17, 2010 Discharge Permit, DP-455. Tyrone shall comply with these conditions, which are enforceable by NMED.

1. Tyrone is authorized to increase the operational fluid surface elevation in the 6A PLS collection pond to range from 5,670 to 5,690 feet, and to increase the maximum fluid surface elevation to 5,700 feet during upset conditions.
2. Within 90 days after achieving the new operational fluid elevation in the 6A collection pond, Tyrone shall provide a topographic map showing the configuration of the Savannah Pit and fluid surface in the 6A collection pond, and the new location of the barge pump.

Other Requirements

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by Tyrone 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 Tyrone 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-455 shall be the same as the term of DP-455 issued on August 17, 2010. The timely submission of the renewal request on or before April 27, 2010 keeps the existing permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

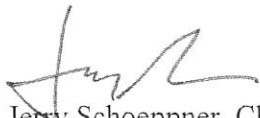
Approval of this Discharge Permit Amendment does not relieve Tyrone of its responsibility to comply with the Water Quality Act (WQA), the WQCC Regulations, and any other applicable federal, state, and/or local laws and regulations.

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

Dan Broderick, Tyrone
December 6, 2013
Page 3

Please contact Keith Ehlert of the Mining Environmental Compliance Section at 505-827-9687 with any questions.

Sincerely,



Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:kv/ke

xc: Kurt Vollbrecht, Acting Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
Sally Smith, GRIP



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

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RYAN FLYNN
Secretary Designate

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

December 9, 2013

Dan Broderick, Manager
Tyrone Operations
Freeport- McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

RE: Discharge Permit Amendment 10-03, DP-455; Remove Monitoring Requirements for Wells 455-2007-01, 455-2008-02 and 455-2008-03, Freeport-McMoRan Tyrone Mine

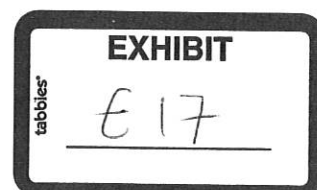
Dear Mr. Broderick:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Tyrone, Inc. (Tyrone) titled, *Discharge Plan 455 (DP-455) Amendment Request* (Request) dated July 23, 2013. Tyrone requests to amend the August 17, 2010 Discharge Permit, DP-455 to remove monitoring requirements for wells 455-2007-01, 455-2008-02 and 455-2008-03, which are located in the Gettysburg Pit. The request is required because work conditions in the area of the wells have become hazardous due to ongoing highwall instability. The facilities covered under DP-455 are located approximately 10 miles south of Silver City in Sections 22, 23, 25, 26 and 27, T19S, R15W, Grant County, New Mexico.

Amendment Description

Tyrone requests to amend DP-455 to remove monitoring requirements for wells 455-2007-01, 455-2008-02 and 455-2008-03. Condition 5 of DP-455 requires monitoring the three wells to verify that fluid levels in the Gettysburg Pit remain below the water level in adjacent monitoring wells 455-2005-02, GLD-5A, EM-2, 455-2007-01, 455-2008-02, and 455-2008-03.

The Request includes a report by Daniel B. Stephens & Associates (DBS&A) indicating that water level data have been collected at these wells for a sufficient period of time (5.5 years) to confirm the capture of groundwater in the Gettysburg Pit and the three wells are no longer



needed to confirm groundwater flow directions in the area. Since monitoring of these wells began in 2008, the fluid level of the Gettysburg Pit has remained below the water levels at the wells.

Permit Conditions

The following conditions shall be added to the August 17, 2010 Discharge Permit, DP-455. Tyrone shall comply with these conditions, which are enforceable by NMED.

1. Tyrone is authorized to discontinue monitoring of wells 455-2007-01, 455-2008-02 and 455-2008-03.
2. Monitoring well abandonment shall be performed in accordance with *NMED Monitoring Well Construction and Abandonment Guidelines* or alternate method approved by NMED.
3. Within 30 days of completion of the abandonment of the wells, Tyrone shall provide NMED a written description of monitoring well abandonment procedures, including the date each well was abandoned.

Other Requirements

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by Tyrone 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 Tyrone 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-455 shall be the same as the term of DP-455 issued on August 17, 2010. The timely submission of the renewal request on or before April 27, 2010 keeps the existing permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

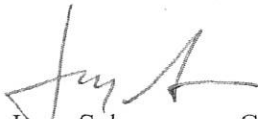
Approval of this Discharge Permit Amendment does not relieve Tyrone of its responsibility to comply with the Water Quality Act (WQA), the WQCC Regulations, and any other applicable federal, state, and/or local laws and regulations.

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

Dan Broderick, Tyrone
December 9, 2013
Page 3

Please contact Keith Ehlert of the Mining Environmental Compliance Section at 505-827-9687 with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jerry A.", is positioned above the printed name.

Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:kv/ke

xc: Kurt Vollbrecht, Acting Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
Sally Smith, GRIP

Summary of DP-455 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|--|--------------------------------|
| Discharge Permit Renewal and Modification, DP-455, Gettysburg and Savannah Pits, 6B, 6C and 7B Leach Stockpiles | August 17, 2010 |
| Discharge Permit Amendment, 10-01, DP-455, Construction of PLS Booster Station on Crest of 6C Stockpile | November 28, 2011 |
| Discharge Permit Modification, 10-01, DP-455, Construction of 6A and 6D Leach Stockpiles | May 14, 2013 |
| Discharge Permit Amendment, 10-02, DP-455, Increase Operational and Maximum Fluid Levels in the 6A PLS Collection Pond, Savannah Pit | December 6, 2013 |



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

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RYAN FLYNN
Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

October 21, 2014

Dan Broderick, Manager
Tyrone Operations
Freeport-McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

RE: Discharge Permit Amendment 10-04, DP-455; Construction of a Waste Rock Stockpile in the Gettysburg Pit

Dear Mr. Broderick:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport-McMoRan Tyrone, Inc. (permittee) titled, *Discharge Permit 455 (DP-455) Amendment Request for Construction of a Waste Rock Stockpile in the Gettysburg Pit* (Request) dated September 25, 2014. Tyrone requests to amend the August 17, 2010 Discharge Permit, DP-455, to construct a waste rock stockpile within the Gettysburg Pit, which is located inside of the Tyrone Mine open pit surface drainage area. The facilities covered under DP-455 are located approximately 10 miles south of Silver City in Sections 22, 23, 25, 26 and 27, T19S, R15W, Grant County, New Mexico.

Amendment Description

A map and cross-sections included with the Request indicate that the proposed waste rock stockpile will be located in the west and south portions of the Gettysburg Pit. Currently the Gettysburg Pit is permitted for pregnant leachate solution (PLS) collection. When construction of the waste rock stockpile is completed, it will hold approximately 56 million tons of waste rock. The stockpile construction sequence will be to initially place an estimated 26 million tons of waste rock which will avoid the 6C-2 PLS Collection Pond. A closure plan for the waste rock stockpile in the Gettysburg Pit shall be included in the renewal of the Tyrone Mine Supplemental Discharge Permit for Closure, DP-1341. During the initial construction sequence, a site within

EXHIBIT

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the Gettysburg Pit will be chosen for construction of a new PLS collection pond to replace the 6C-2 PLS Collection Pond.

Permit Conditions

The following conditions shall be added to the August 17, 2010 Discharge Permit, DP-455. The permittee shall comply with these conditions, which are enforceable by NMED.

1. The permittee is authorized to construct the waste rock stockpile as described in the September 25, 2014 amendment request. The footprint of the proposed waste rock stockpile shall conform to the configuration shown on Figure 1 attached to the request. [20.6.2.21 NMAC]
2. Placement of waste rock in the Gettysburg Pit shall be implemented in such a way to plan for closure and be in accordance with an annual operating plan that describes, among other things, sequencing of material placement. [Sections 20.6.7.18, 20.6.7.21 and 20.6.7.33 NMAC]
3. Stormwater run-on shall be diverted or contained to minimize contact between stormwater run-on and the stockpiled material. [Paragraph (2) of Subsection B of 20.6.7.21 NMAC]
4. The permittee shall report approximate volumes of material placed during construction of the stockpile. Reporting on material placement and backfilling shall be submitted semiannually on February 15th and August 15th of each year with the monitoring reports required in Condition 19 of the August 17, 2010 Discharge Permit Renewal and Modification. [20.6.2.3107 NMAC]
5. At least 45 days prior to construction of the new PLS collection pond, the permittee shall submit for NMED approval detailed plans of the proposed collection pond, including a topographic map showing the proposed location. The collection pond shall be designed and constructed according to copper rule requirements. [20.6.7.18 NMAC]
6. The permittee shall submit as-built plans of the new PLS collection pond and associated pipelines to NMED within 60 days of completion of construction. [20.6.7.18 NMAC]
7. Within 120 days after completion of the waste rock stockpile, the permittee shall provide a topographic map showing the completed configuration of the stockpile and configuration of the entire Gettysburg Pit. The map shall have a contour interval no greater than 10 feet and shall be at a scale of 1 inch equals 400 feet (1:4800) or larger.

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-455 that remain unchanged which 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 the permittee of liability should its operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations.

Dan Broderick, Tyrone
October 21, 2014
Page 3

Period of Approval

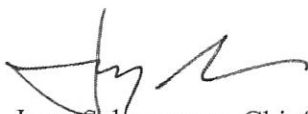
Pursuant to 20.6.2.3109.H.4 NMAC, the term of this Discharge Permit Amendment for DP-455 shall be the same as the term of DP-455 and will expire on August 17, 2015. [20.6.2.3106.F NMAC]

Approval of this Discharge Permit Amendment does not relieve the permittee of the 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 the permittee intends to change the disposition of any discharge relating to this amendment, the permittee is required to notify NMED prior to changing the discharge.

Please contact Keith Ehlert of the Mining Environmental Compliance Section at 505-827-9687 with any questions.

Sincerely,



Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:kv/ke

xc: Kurt Vollbrecht, Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
David Otori, MMD Tyrone Permit Lead
Allyson Siwik, GRIP

Summary of DP-455 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|---|-------------------------|
| Discharge Permit Renewal and Modification, DP-455, Gettysburg and Savannah Pits, 6B, 6C and 7B Leach Stockpiles | August 17, 2010 |
| Discharge Permit Amendment 10-01, DP-455, Construction of PLS Booster Station on Crest of 6C Stockpile | November 28, 2011 |
| Discharge Permit Modification 10-01, DP-455, Construction of 6A and 6D Leach Stockpiles | May 14, 2013 |

Dan Broderick, Tyrone
October 21, 2014
Page 4

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|---|------------------|
| Discharge Permit Amendment 10-02, DP-455, Increase Operational and Maximum Fluid Levels in the 6A PLS Collection Pond, Savannah Pit | December 6, 2013 |
| Discharge Permit Amendment 10-03, DP-455, Remove Monitoring Requirements for Wells 455-2007-01, 455-2008-02 and 455-2008-03 | December 9, 2013 |



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ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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William C. Olson, Bureau Chief



RON CURRY
Secretary
SARAH COTTRELL
Deputy Secretary

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

*Mailed 9/1
to P.O. Box 10
Byrd NM,
for Kurt V.*

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



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William C. Olson, Bureau Chief



RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

October 28, 2008

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

RE: Approval of Amendment to Discharge Permit DP-526: Placement of Waste Rock Material from Cobre Mining Company's Continental Mine on West Stockpile.

Dear Mr. Eastep:

In a letter titled "Amendment Request for Placement of Slate Waste Rock Material on West Stockpile, Discharge Plan DP-526 Whitewater Leach System," dated October 20, 2008, Freeport-McMoRan Copper and Gold, Inc., Chino Mines Company (Chino) requested that DP-526 be amended to allow for placement of waste rock material from Cobre Mining Company's (Cobre) Continental Mine Shaft and Adit reclamation program (DP-1403) at the Chino West Stockpile.

The Chino West Stockpile is located in Sections 28 and 33, T17S, R12W in Grant County, New Mexico.

The New Mexico Environment Department (NMED) issued a "Supplemental Discharge Plan for Closure, DP-1403" on December 10, 2004, describing the closure requirements for Cobre's Continental Pit, Tailing Impoundments, Waste Rock Piles, Fierro Leach Pad and associated facilities at its copper mine and mill, in Grant County, New Mexico (the Continental Mine Facility). Condition 63.C of DP-1403 requires that Cobre reclaim historic shafts and adits in and around the Continental Mine Site. To facilitate

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reclamation efforts under DP-1403, Cobre and Chino have entered into an agreement proposing that waste rock material generated at Cobre during shaft and adit reclamation activities be deposited on the Chino West Stockpile.

Based on the protocols established by Condition 5 of DP-526, Chino will provide the following information for each project requiring deposition of Continental Mine shaft and adit waste rock material at the Chino West Stockpile:

- A site map indicating the proposed location where the material is to be placed on the West Stockpile;
- A description of the material to be moved;
- Estimated volume of material to be moved;
- A geochemical analysis of the material for acid base accounting plus total and leachable metals.

In addition, Chino will report the volume of material placed on the West Stockpile on a semi-annual basis in the DP-526 semi-annual report.

Pursuant to the Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC), an amendment of DP-526 is hereby approved as agreed to by Chino for the placement of waste rock material from the Continental Mine Facility onto the Chino Mine West Stockpile.

In approving this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.2.3109.C NMAC have been met. The approved amendment to DP-526 is described under permit Condition 5, with a new Subpart A, which reads as follows:

5.A The West Stockpile may receive waste rock material from Continental Mine Facility shaft and adit reclamation projects. Prior to each deposit of waste rock material to the West Stockpile, the following shall be reported to NMED:

- 1) A site map indicating the proposed location where the material is to be placed on the West Stockpile;**
- 2) A description of the material to be moved;**
- 3) Estimated volume of material to be moved;**
- 4) A geochemical analysis of the material for acid base accounting plus total and leachable metals.**

Approval of this Discharge Permit Amendment does not relieve Chino of responsibility for compliance with any other conditions or requirements of the approved DP-526 or any other applicable federal, state, and/or local laws and regulations, including zoning requirements and nuisance ordinances.

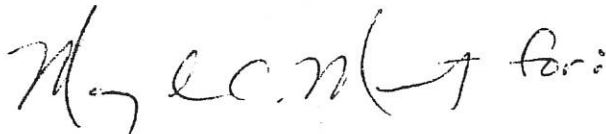
Mr. Timothy Eastep, Manager
10/28/2008
Page 3 of 3

Period of Approval

This amendment approval expires on October 3, 2011, the same date as the original permit, and Chino should submit an application for renewal at least 120 days before that date.

If you have any questions, please contact Greg Huey of the NMED Mining Environmental Compliance Section at (505) 827-1046.

Sincerely,

A handwritten signature in black ink, appearing to read "W. C. Olson" followed by a stylized flourish.

William C. Olson, Chief
Ground Water Quality Bureau

cc: Mary Ann Menetrey, Program Manager, MECS-GWQB
DP-526 Correspondence file
DP-1403 Correspondence file

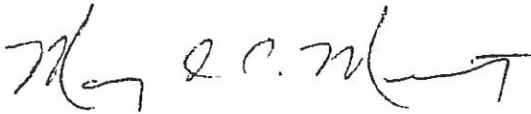
Mr. Timothy Eastep, Manager
September 1, 2010
Page 3 of 3

(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



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Lieutenant Governor

NEW MEXICO
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RYAN FLYNN
Secretary - Designate

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

August 6, 2013

William M. Katz, Chief Environmental Engineer
Environmental Services
Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation

Dear Mr. Katz:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport McMoRan Copper and Gold - Chino Mines Company (permittee) titled, *Discharge Permit 526 (DP-526) Amendment Request for Pipeline Reroute* (Letter), and received by NMED on June 10, 2013. In the Letter, the permittee requests to amend the Discharge Permit, DP-526, for the relocation of five pipelines on Chino's West Stockpile and along the northwest side of the Santa Rita Open Pit. The facilities covered under DP-526 are located approximately 2 miles northeast of Bayard and includes the reach of Whitewater Creek from Hanover Creek to the northern end of Hurley at the northern boundary of the former Lake One in Sections 28, 29, 32, 33 and 34, T17S, R12W; Sections 3, 4, 5, 6, 7, 18, 19, 30 and 31, T18S, R12W; and Sections 12 and 13, T18S, R13W in Grant County.

NMED issues this Discharge Permit Amendment 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. This Discharge Permit Amendment does not result in significant changes in the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit Renewal/Modification, DP-526, issued to the permittee on October 3, 2006. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met.

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Background

The purpose of this Discharge Permit Amendment is to authorize relocation of pipelines to accommodate expansion of Chino's Lee Hill sub pit. The permittee anticipates that push-back of the Lee Hill sub pit wall will commence in January 2014. Because the proposed push-back will interfere with the current location of pipelines and power lines, it is necessary to relocate this infrastructure. The five pipelines and associated pipeline corridor proposed for relocation include the following: the Southside PLS pipeline, a 30-inch diameter pipeline that conveys PLS from the Southwest PLS tank to the SXEW; the raffinate pipeline, a 30-inch diameter pipeline that conveys raffinate from the SXEW to Chino's South and West Stockpiles; two 20-inch diameter impacted storm water pipelines that convey storm water from Reservoir 4A to the SXEW facility; and one 8-inch diameter pipeline that conveys fresh water to the Hydromet facility. Part of this project also includes relocating the 115 kV and 25 kV power lines and demolition of the Fast Fuel sub-station.

Amendment Description

The pipeline relocation design is divided into six corridor segments, A-F. The pipeline corridor will be bermed according to Mine Safety and Health Administration (MSHA) standards, and will be designed and constructed to direct spills directly or indirectly to either the leachable portion of the West Stockpile, the Whitewater PLS collection system, or to the Santa Rita Open Pit.

Corridor segments A through C fall within the leachable area of the West Stockpile; pipeline releases occurring within these segments will be captured directly or indirectly in either the Whitewater PLS collection system or the Santa Rita Open Pit. Corridor segment D crosses up and onto the West Stockpile, and across the boundary demarking the permitted leach area of the West Stockpile. Pipeline releases in the southern portion of this segment will be contained within the pipeline corridor and directed down two drainage ditches (Drainage Ditch-A and Drainage Ditch-B) to ripped stockpile surfaces at the toe of the area permitted for leaching on the West Stockpile. Pipeline releases occurring along the central and northern segments of Corridor D will be directed along the corridor to Drainage Ditch C, which conveys fluids down a haul road toward the Santa Rita Open Pit. Corridors E and F are to be located outside of the area of active mining disturbance and therefore, some clearing and grubbing of the vegetation will be required in order to relocate the pipelines. Construction of these pipeline segments will include secondary containment in the form of a 60 mil HDPE wrap around the pipelines. Pipeline releases occurring within Corridor segment F will be directed within the HDPE wrap to Drainage Ditch D thence the Santa Rita Open Pit; pipeline releases occurring in the far western segment of Corridor E will be conveyed to Drainage Ditch C. Periodically along Corridor segments E and F, the HDPE wrap will be equipped at low spots with nipples/valves and appropriately sized drainage pipes that will convey released fluids/condensate to drainage ditches and/or the Santa Rita Open Pit. Beyond Corridor segment F, the pipelines will be connected back into the existing pipeline corridor.

The pipeline corridor, associated berms, and drainage ditches will be constructed using locally sourced materials (e.g., West Stockpile).

Permit Conditions

This Discharge Permit Amendment applies to the existing Whitewater Leach System Discharge Permit, DP-526, which is still in effect pursuant to 20.6.3106.F NMAC. The following conditions will be added to the effective DP-526 and continued upon renewal. The permittee shall comply with these conditions, which are enforceable by NMED.

1. The permittee is authorized to relocate the pipelines and associated infrastructure as outlined above and described in the Letter received by NMED on June 10, 2013. [Section 20.6.2.3109 NMAC]
2. In order to detect leaks in the pipelines, the permittee shall equip each pipeline with a minimum configuration of at least one flow meter and pressure sensor(s). [Section 20.6.2.3109 NMAC]
3. During the operation of the pipelines, the permittee shall conduct inspections along the entire length of the relocated pipeline corridor. Inspections shall be conducted by radio-equipped patrols at least twice per day, once in the morning and once in the evening. Inspections will not be required if all of the pipelines have been flushed and taken out of service. [Section 20.6.2.3109 NMAC]
4. Upon startup of any of the pipelines, the permittee must visually inspect that pipeline and all associated structures. The permittee must also perform pressure tests on each pipeline prior to being put back into service to ensure that the line has maintained its integrity during the shutdown period. [Section 20.6.2.3109 NMAC]
5. Within 120 days following the effective date of this Discharge Permit Amendment (**by December 4, 2013**), the permittee shall take appropriate corrective action measures to clean up the depression located immediately northwest of the Lee Hill sub pit. This depression (aka the "alluvial fan area") has collected spills and impacted storm water from the adjacent haul road. Acceptable corrective actions include filling in the depression and/or creating positive drainage such that fluids will be conveyed directly to Drainage Ditch C or D and/or the Santa Rita Open Pit. Documentation of corrective actions taken shall be submitted to NMED within 30 days of completion. [Section 20.6.2.3109 NMAC]

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-526 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee of liability should its operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations.

William Katz, Whitewater Leach System, DP-526
August 6, 2013
Page 4

Period of Approval

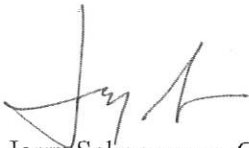
Pursuant to 20.6.2.3109.H.4 NMAC, the term of this Discharge Permit Amendment for the DP-526 shall be the same as the term of DP-526. The timely submission of the Discharge Permit renewal application on June 6, 2011 keeps the existing permit and associated amendment(s) effective until the renewal process is complete. [Subsection F of 20.6.2.3106 NMAC]

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

Please contact Brad Reid of the Mining Environmental Compliance Section at 505-827-2963 with any questions.

Sincerely,



Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:BR

cc: Kurt Vollbrecht, Acting Program Manager, GWQB-MECS (signed PDF copy via e-mail)
George Llewellyn, GWQB-MECS, Silver City Office (signed PDF copy via e-mail)
Sally Smith, GRIP (signed PDF copy sent via e-mail to: sallys@gilanet.com)



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JOHN A. SANCHEZ
Lieutenant Governor

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RYAN FLYNN
Secretary - Designate

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

October 17, 2013

John Brack, VP of Chino Acquisition, Inc.
Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation - REISSUED

Dear Mr. Brack:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport McMoRan Copper and Gold, Inc. - Chino Mines Company (permittee) titled, *Whitewater Leach System – Discharge Permit 526 (DP-526) Additions to Amendment Request for Pipeline Reroute* (Letter), dated October 1, 2013 and received by NMED on October 8, 2013. In the Letter, the permittee requests to make additions to the Discharge Permit Amendment for DP-526 issued by NMED on August 6, 2013. The reason for this is that the original pipeline re-routing plan has been significantly altered thereby necessitating a reissued Discharge Permit Amendment. The permittee now proposes a two-phase approach to the project: 1) Phase One will relocate the pipelines along an existing/expanded pipeline corridor along the northeast corner of the West Stockpile with connection to Corridors E and F (described below) and, 2) Phase Two, which will correspond to the project as described in the original Discharge Permit Amendment issued August 6, 2013. The facilities covered under DP-526 are located approximately 2 miles northeast of Bayard and includes the reach of Whitewater Creek from Hanover Creek to the northern end of Hurley at the northern boundary of the former Lake One in Sections 28, 29, 32, 33 and 34, T17S, R12W; Sections 3, 4, 5, 6, 7, 18, 19, 30 and 31, T18S, R12W; and Sections 12 and 13, T18S, R13W in Grant County.

NMED reissues this Discharge Permit Amendment 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. This Discharge Permit Amendment

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does not result in significant changes in the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit Renewal/Modification, DP-526, issued to the permittee on October 3, 2006. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met.

Background

The purpose of this Discharge Permit Amendment is to authorize relocation of pipelines to accommodate expansion of Chino's Lee Hill sub pit. The permittee anticipates that push-back of the Lee Hill sub pit wall will commence in January 2014. Because the proposed push-back will interfere with the current location of pipelines and power lines, it is necessary to relocate this infrastructure. The five pipelines and associated pipeline corridor proposed for relocation include the following: the Southside PLS pipeline, a 30-inch diameter pipeline that conveys PLS from the Southwest PLS tank to the SXEW; the raffinate pipeline, a 30-inch diameter pipeline that conveys raffinate from the SXEW to Chino's South and West Stockpiles; two 20-inch diameter impacted storm water pipelines (aka "floodlines") that convey storm water from Reservoir 4A to the SXEW facility; and one 8-inch diameter pipeline that conveys fresh water to the SXEW facility. This project also includes relocating the 115 kV and 25 kV power lines and demolition of the Fast Fuel sub-station.

Amendment Description

Phase One:

The pipeline relocation design as previously authorized divided the pipeline corridor into six segments, A-F. Phase One will only include installation of Corridors E and F. Instead of installing Corridors A-D, Phase One will instead improve and expand upon an existing pipeline corridor (PLS and raffinate pipeline corridor) located up and along the northeast corner of the West Stockpile, and then will connect to the newly installed Corridors E and F.

The existing floodlines, currently located along the Lee Hill sub pit west rim, and the 8-inch water line will be connected into the existing PLS and raffinate pipeline corridor at a location near the Frog Pond, and will travel along the northeast corner of the West Stockpile. The corridor will then require some expansion to the NW near the existing haul road in order to connect to Corridors E-F.

The raffinate and PLS pipelines will be routed from their current existing corridor on the West Stockpile up to Corridors E-F along the newly expanded portion of the pipeline corridor as described above. This existing PLS and raffinate pipeline corridor is to be used for re-routing purposes and the expanded corridor shall heretofore be referred to as Corridor G.

Corridors E and F are to be located outside of the area of active mining disturbance and some clearing and grubbing of the vegetation will be required. Construction of these pipeline segments will include secondary containment in the form of a 60 mil HDPE wrap around the pipelines. Pipeline releases occurring within Corridor F will be directed within the HDPE wrap to Drainage Ditch D thence the Santa Rita Open Pit; pipeline releases occurring in the far western segment of Corridor E will be conveyed to Drainage Ditch C. Periodically along

Corridors E and F, the HDPE wrap will be equipped at low spots with nipples/valves and appropriately sized drainage pipes that will convey released fluids/condensate to drainage ditches and/or the Lee Hill sub pit. Beyond Corridor F, the pipelines will be connected back into the existing pipeline corridor.

Phase One of this project is within the Open Pit Capture Zone as defined by Golder and Associates in 2007.

Phase Two:

Phase Two includes installation of Corridors A-D and connection to Corridors E-F. Corridors A-D will be installed within the leachable area of the West Stockpile; pipeline releases occurring within these segments will be captured directly or indirectly in either the Whitewater PLS collection system or the Santa Rita Open Pit. Corridor D crosses up and onto the West Stockpile, and across the boundary demarking the permitted leach area of the West Stockpile. Pipeline releases in the southern portion of this segment will be contained within the pipeline corridor and directed down two drainage ditches (Drainage Ditch-A and Drainage Ditch-B) to ripped stockpile surfaces at the toe of the area permitted for leaching on the West Stockpile. Pipeline releases occurring along the central and northern segments of Corridor D will be directed along the corridor to Drainage Ditch C, which conveys fluids down a haul road toward the Santa Rita Open Pit.

The pipeline corridor will be bermed, as applicable, according to Mine Safety and Health Administration (MSHA) standards, and will be designed and constructed to direct spills directly or indirectly to either the Whitewater PLS collection system or to the Lee Hill sub pit. The pipeline corridor, associated berms, and drainage ditches will be constructed using locally sourced materials (e.g., West Stockpile).

Permit Conditions

This Discharge Permit Amendment applies to the existing Whitewater Leach System Discharge Permit, DP-526, which is still in effect pursuant to 20.6.3106.F NMAC. The following conditions will be added to the effective DP-526 and continued upon renewal. The permittee shall comply with these conditions, which are enforceable by NMED.

1. This Discharge Permit Amendment replaces the document titled, *Discharge Permit Amendment, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation*, issued on August 6, 2013.
2. The permittee is authorized to relocate the pipelines and associated infrastructure as outlined above and described in the Letter received by NMED on October 8, 2013. Additional details regarding this project are also described in the original amendment request received by NMED on June 10, 2013 as well as the original Discharge Permit Amendment issued by NMED on August 6, 2013.

3. In order to detect leaks in the pipelines, the permittee shall equip each pipeline with a minimum configuration of at least one flow meter and pressure sensor(s) equipped with alarms that will be monitored at the SXEW control room.
4. During the operation of the pipelines, the permittee shall conduct visual inspections along the entire length of the relocated pipeline corridor. Inspections shall be conducted by radio-equipped patrols at least twice per day, once in the morning and once in the evening. Inspections will not be required if all of the pipelines have been flushed and taken out of service.
5. Upon startup of any of the pipelines, the permittee must visually inspect that pipeline and all associated structures. The permittee must also perform pressure tests on each pipeline prior to being put back into service to ensure that the line has maintained its integrity during the shutdown period.
6. By March 31, 2014, the permittee shall take appropriate corrective action measures to clean up the depression located immediately northwest of the Lee Hill sub pit. This depression (aka the "alluvial fan area") has collected spills and impacted storm water from the adjacent haul road. Acceptable corrective actions include creating positive drainage and covering or removing impacted sediments. The permittee shall create positive drainage such that impacted solutions will no longer pond in this area. Impacted solutions shall be conveyed directly to Drainage Ditch C or D and/or the Lee Hill sub pit. Documentation of corrective actions taken shall be submitted to NMED within 30 days of completion.
7. The permittee shall notify NMED in writing when it plans to initiate Phase Two of the pipeline relocation project.

[Section 20.6.2.3109 NMAC]

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-526 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee 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 the DP-526 shall be the same as the term of DP-526. The timely submission of the Discharge Permit renewal application on June 6, 2011 keeps the existing permit and associated amendment(s) effective until the renewal process is complete. [Subsection F of 20.6.2.3106 NMAC]

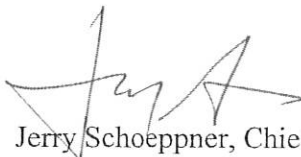
John Brack, Whitewater Leach System, DP-526
October 17, 2013
Page 5

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

Please contact Brad Reid of the Mining Environmental Compliance Section at 505-827-2963 with any questions.

Sincerely,



Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:BR

cc: Sherry Burt-Kested, Environmental Services Manager, Chino Mines Company (signed PDF copy sent via e-mail to: Sherry_Burt-Kested@FMI.com)
William Katz, Chief Environmental Engineer, Chino Mines Company (signed PDF copy sent via e-mail to: William_Katz@FMI.com)
GRIP (signed PDF copy sent via electronic mail to: grip@gilaresources.info)
Kurt Vollbrecht, Acting Program Manager, GWQB-MECS (signed PDF copy sent via electronic mail to: kurt.vollbrecht@state.nm.us)
George Llewellyn, GWQB-MECS, Silver City Office (signed PDF copy sent via electronic mail to: george.llewellyn@state.nm.us)
Chris Eustice, MMD Permit Lead (signed PDF copy sent via electronic mail to: chris.eustice@state.nm.us)



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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www.nmenv.state.nm.us



RYAN FLYNN
Secretary - Designate

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

November 22, 2013

John Brack, VP of Chino Acquisition, Inc.
Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment 06-08, DP-526, Haul Truck Wash Relocation

Dear Mr. Brack:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport McMoRan Copper and Gold - Chino Mines Company (permittee) titled, *Discharge Permit 526 (DP-526) Amendment Request for Haul Truck Wash Relocation* (Letter), and received by NMED on August 30, 2013. In the Letter, the permittee requests to amend the Discharge Permit, DP-526, for the relocation of the Haul Truck Wash located in Chino's truck shop area. The facilities covered under DP-526 are located approximately 2 miles northeast of Bayard and includes the reach of Whitewater Creek from Hanover Creek to the northern end of Hurley at the northern boundary of the former Lake One in Sections 28, 29, 32, 33 and 34, T17S, R12W; Sections 3, 4, 5, 6, 7, 18, 19, 30 and 31, T18S, R12W; and Sections 12 and 13, T18S, R13W in Grant County.

NMED issues this Discharge Permit Amendment 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. This Discharge Permit Amendment does not result in significant changes in the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit Renewal/Modification, DP-526, issued to the permittee on October 3, 2006. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met.



Background

The purpose of this Discharge Permit Amendment is to authorize relocation of the Haul Truck Wash to accommodate expansion of Chino's Lee Hill sub pit. The permittee anticipates that push-back of the Lee Hill sub pit wall will commence in January 2014. Because the proposed push-back will interfere with the existing truck wash, it is necessary to relocate it. The new location will be approximately 500 feet west of the existing location. The Haul Truck Wash is used to wash down heavy equipment, including haul trucks, and also to clean equipment prior to entering the truck shop.

Amendment Description

The truck wash will be equipped with water cannons and spray nozzles to wash down equipment. Wash water and mud/grit trap waste will flow down a central trough to a settling basin/mud sump. Water from this basin will overflow into a second basin and then be pumped through a series of filters and then will be recirculated back to the wash down equipment. Most of the wash water will be recycled; however, at times when the basins have reached their capacities, excess wash water will discharge to a launder north of the truck wash and flow down along the toe of the West Stockpile with terminal discharge to Reservoir 4A.

The second settling basin will contain an oil capture system. Captured oil will be stored in containments and will either be recycled or disposed of offsite at a permitted facility.

Permit Conditions

This Discharge Permit Amendment applies to the existing Whitewater Leach System Discharge Permit, DP-526, which is still in effect pursuant to 20.6.3106.F NMAC. The following conditions will be added to the effective DP-526 and continued upon renewal. The permittee shall comply with these conditions, which are enforceable by NMED.

1. The permittee is authorized to relocate and construct the Haul Truck Wash facility as outlined above and described in the Letter. [Section 20.6.2.3109 NMAC]
2. The truck or equipment wash pad shall remain within the area identified in the Letter. [Section 20.6.2.3109 NMAC]
3. Wash water generated at the wash pad shall be contained within the designed containment pad, mud sump, and oil-water separator until treated to meet applicable standards for discharge or conveyed to the process water circuit (i.e., Reservoir 4A). [Section 20.6.2.3109 NMAC]
4. Any leaks or spills of wash water from the containment pad, mud sump, and oil-water separator shall be recorded, reported and corrected pursuant to Section 20.6.2.1203 NMAC.

5. Any wastes generated from the oil water separator, mud sump, or the tank system shall be disposed of offsite in accordance with applicable laws or onsite in a manner approved by the department. [Section 20.6.2.3109 NMAC]
6. Design and construction of the Haul Truck Wash will be in accordance with Section 20.6.7.26 NMAC of the Copper Mine Rules.

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-526 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee 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

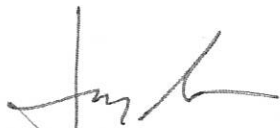
Pursuant to 20.6.2.3109.H.4 NMAC, the term of this Discharge Permit Amendment for the DP-526 shall be the same as the term of DP-526. The timely submission of the Discharge Permit renewal application on June 6, 2011 keeps the existing permit and associated amendment(s) effective until the renewal process is complete. [Subsection F of 20.6.2.3106 NMAC]

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

Please contact Brad Reid of the Mining Environmental Compliance Section at 505-827-2963 with any questions.

Sincerely,



Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:BR

cc: William Katz, Chief Environmental Engineer, Chino Mines Company (signed PDF copy sent via electronic mail to: William_Katz@FMI.com)
GRIP (signed PDF copy sent via electronic mail to: grip@gilaresources.info)
Kurt Vollbrecht, Acting Program Manager, GWQB-MECS (signed PDF copy sent via electronic mail to: kurt.vollbrecht@state.nm.us)
George Llewellyn, GWQB-MECS, Silver City Office (signed PDF copy sent via electronic mail to: george.llewellyn@state.nm.us)
Chris Eustice, MMD Permit Lead (signed PDF copy sent via electronic mail to: chris.eustice@state.nm.us)

Summary of DP-526 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|--|-------------------------|
| Discharge Permit Renewal and Modification, Whitewater Leach System, DP-526 | October 3, 2006 |
| Discharge Permit Amendments 06-01, DP-526; DP-213 & DP-214, Placement of Hidalgo Copper Bearing Material on the Chino South Stockpile and Chino Mill Intermediate Ore Stockpile; and Staging of Hidalgo Material on the Chino Older Tailings Impoundments; Freeport – McMoran Chino Mine | May 9, 2008 |
| Discharge Permit Amendment 06-02, DP-526; Placement of Reservoir 7 Sediments on the South Stockpile | January 26, 2010 |
| Discharge Permit Amendment 06-03, DP-526; Placement of Reservoir 7 Sediments on the South Stockpile | November 24, 2010 |
| Discharge Permit Amendment 06-04, DP-526; Application of Process Solutions from the PLS Tank to the West Stockpile | November 24, 2010 |
| Discharge Permit Amendment 06-05, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoran Chino Mines Company | June 22, 2010 |
| Discharge Permit Amendment 06-06, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation | August 6, 2013 |
| Discharge Permit Amendment 06-07, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation - REISSUED | October 17, 2013 |
| Discharge Permit Amendment 06-08, DP-526, Haul Truck Wash Relocation | November 22, 2013 |



SUSANA MARTINEZ
Governor

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Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT
Ground Water Quality Bureau

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RYAN FLYNN
Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

March 27, 2014

John Brack, President
Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment 06-09, DP-526, Frog Pond Relocation

Dear Mr. Brack:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport McMoRan Copper and Gold - Chino Mines Company (permittee) titled, *Whitewater Leach System – Discharge Permit 526 (DP-526) Condition 56, Amendment Request for Relocation of Frog Pond* (Letter), dated February 21, 2014, and received by NMED on February 25, 2014. In the Letter, the permittee requests to amend the Discharge Permit, DP-526, for the relocation of the Frog Pond. The facilities covered under DP-526 are located approximately 2 miles northeast of Bayard and includes the reach of Whitewater Creek from Hanover Creek to the northern end of Hurley at the northern boundary of the former Lake One in Sections 28, 29, 32, 33 and 34, T17S, R12W; Sections 3, 4, 5, 6, 7, 18, 19, 30 and 31, T18S, R12W; and Sections 12 and 13, T18S, R13W in Grant County.

NMED issues this Discharge Permit Amendment 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 and 20.6.7 NMAC. This Discharge Permit Amendment does not result in significant changes in the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit Renewal/Modification, DP-526, issued to the permittee on October 3, 2006. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.7.14 NMAC and Subsection C of 20.6.2.3109 NMAC have been met.

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Background

The purpose of this Discharge Permit Amendment is to authorize relocation of the Frog Pond to accommodate ongoing expansion of Chino's Lee Hill sub pit. Because the push-back will interfere with the existing location of the Frog Pond, it is necessary to relocate it. The Frog Pond is one of four locations at the mine used for storage of process water that is used for dust suppression on haul roads throughout the mine. Frog Pond process water consists of a blend of Tailing Pond 7 decant water (DP-484) and potable water from Chino supply wells. Water quality data for these source locations has been established, or is currently being reported pursuant to applicable Chino operational discharge permits. Water quality from these sources typically exceeds Water Quality Control Commission standards (20.6.2.3103 NMAC) for TDS and sulfate. Description of dust suppression practices at the mine is covered in more detail in the enclosed document titled, "*Discharge Permit Amendment 06-05, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoRan Chino Mines Company,*" and dated June 22, 2012.

Amendment Description

The new location for the Frog Pond is approximately 1100 feet southwest of the existing location which places it outside the Chino Mine Open Pit Surface Drainage Area as tentatively defined based on existing data. At this time, the Open Pit Surface Drainage Area has not been formally defined for the Chino Mine. The pond has a design capacity of 1.65 million gallons and will consist of inner and outer 60 mil HDPE liners with interstitial leak collection and fluid removal systems.

Permit Conditions

This Discharge Permit Amendment applies to the existing Whitewater Leach System Discharge Permit, DP-526, which is still in effect pursuant to 20.6.3106.F NMAC. The following conditions will be added to the effective DP-526 and continued upon renewal. The permittee shall comply with these conditions, which are enforceable by NMED.

1. Design, construction, and operation of the relocated Frog Pond shall be as outlined above and described in the Letter and in accordance with Section 20.6.7.17 NMAC of the Copper Mine Rule.
2. The permittee shall comply with all applicable contingency requirements described in Section 20.6.7.30 NMAC of the Copper Mine Rule.
3. Any leaks or spills from the Frog Pond shall be recorded, reported and corrected pursuant to Subsection G of 20.6.7.30 NMAC.
4. Solutions collected in the interstitial layer between the two liners shall be gravity piped to the Open Pit Surface Drainage Area. [Section 20.6.2.3109 NMAC]

5. Monitoring and reporting of solutions discharged to and from the relocated Frog Pond shall be submitted to NMED pursuant to the document titled, "*Discharge Permit Amendment 06-05, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoRan Chino Mines Company,*" and dated June 22, 2012. [Section 20.6.2.3109 NMAC]

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-526 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee 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 the DP-526 shall be the same as the term of DP-526. The timely submission of the Discharge Permit renewal application on June 6, 2011 keeps the existing permit and associated amendment(s) effective until the renewal process is complete. [Subsection F of 20.6.2.3106 NMAC]

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

Please contact Brad Reid of the Mining Environmental Compliance Section at 505-827-2963 with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "KT V. [unclear] for.", is written over the signature line.

Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:BR

enc: Document titled, "*Discharge Permit Amendment 06-05, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoRan Chino Mines Company,*" and dated June 22, 2012.

cc: William Katz, Chief Environmental Engineer, Chino Mines Company (signed PDF copy via electronic mail: William_Katz@FMI.com)
 Christian Krueger, Chino Mines Company (signed PDF copy via electronic mail: Christian_Krueger@FMI.com)
 GRIP (signed PDF copy via electronic mail: grip@gilaresources.info)
 Kurt Vollbrecht, Program Manager, GWQB-MECS (signed PDF copy via electronic mail: kurt.vollbrecht@state.nm.us)
 George Llewellyn, GWQB-MECS, Silver City Office (signed PDF copy via electronic mail: george.llewellyn@state.nm.us)
 Chris Eustice, MMD Permit Lead (signed PDF copy via electronic mail: chris.eustice@state.nm.us)

Summary of DP-526 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|--|-------------------------|
| Discharge Permit Renewal and Modification, Whitewater Leach System, DP-526 | October 3, 2006 |
| Discharge Permit Amendments 06-01, DP-526, DP-213 & DP-214, Placement of Hidalgo Copper Bearing Material on the Chino South Stockpile and Chino Mill Intermediate Ore Stockpile; and Staging of Hidalgo Material on the Chino Older Tailings Impoundments; Freeport – McMoRan Chino Mine | May 9, 2008 |
| Discharge Permit Amendment 06-02, DP-526; Placement of Reservoir 7 Sediments on the South Stockpile | January 26, 2010 |
| Discharge Permit Amendment 06-03, DP-526; Placement of Reservoir 7 Sediments on the South Stockpile | November 24, 2010 |
| Discharge Permit Amendment 06-04, DP-526; Application of Process Solutions from the PLS Tank to the West Stockpile | November 24, 2010 |
| Discharge Permit Amendment 06-05, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoRan Chino Mines Company | June 22, 2012 |
| Discharge Permit Amendment 06-06, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation | August 6, 2013 |
| Discharge Permit Amendment 06-07, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation - REISSUED | October 17, 2013 |
| Discharge Permit Amendment 06-08, DP-526, Haul Truck Wash Relocation | November 22, 2013 |
| Discharge Permit Amendment 06-09, DP-526, Frog Pond Relocation | March 27, 2014 |



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

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RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 5, 2015

John Brack, President
Freeport-McMoRan - Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment 06-10, DP-526, South Stockpile Fill-in

Dear Mr. Brack:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport-McMoRan - Chino Mines Company (permittee) titled, *Whitewater Leach System – Discharge Permit 526 (DP-526) Amendment Request – South Stockpile Fill-in* (Request) dated March 12, 2015, and received by NMED on March 17, 2015. On March 24, 2015, the New Mexico Mining of Minerals Division (MMD) requested additional information from the permittee in order to satisfy technical completeness. The permittee submitted additional information including a map and cross sections to MMD in an e-mail dated April 2, 2015. NMED received this information on April 6, 2015. Following additional discussions with the permittee an email was sent to NMED dated April 24, 2015 that clarified the nature of the material to be placed pursuant to the Request. The Request was deemed technically complete by NMED on April 24, 2015.

The facilities covered under DP-526 are located approximately 2 miles northeast of Bayard and include the West, South, and Upper South Stockpiles and the reach of Whitewater Creek from Hanover Creek to the northern end of Hurley at the northern boundary of the former Lake One in Sections 28, 29, 32, 33 and 34, T17S, R12W; Sections 3, 4, 5, 6, 7, 18, 19, 30 and 31, T18S, R12W; and Sections 12 and 13, T18S, R13W in Grant County.

NMED issues this Discharge Permit Amendment 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 and 20.6.7 NMAC. As defined in Section

EXHIBIT

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20.6.7.7 NMAC, this Amendment does not result in significant changes to the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit Renewal/Modification, DP-526, issued to the permittee on October 3, 2006. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.7.14 NMAC and Subsection C of 20.6.2.3109 NMAC have been met.

Background

The purpose of this Discharge Permit Amendment is to authorize placement of material that will abut the east side of existing South Stockpile beyond the permitted footprint in a location known as the triangle area. The South Stockpile is a leach stockpile permitted under DP-526 and may receive ore from the open pit and ore blended with Lake One material for leaching. The material that will be placed in the triangle area is considered waste rock and will not be leached.

Amendment Description

The permittee proposes to fill in an approximately 22 acre triangular-shaped area along the east margin of the South Stockpile (South Stockpile Fill-In) with waste rock. The Upper South Stockpile is located immediately east of the South Stockpile Fill-In, with a haul road in between. A map included with the letter indicates the South Stockpile Fill-In will not extend beyond the west margin of the haul road and as such, will not contact the Upper South Stockpile. Filling in this area will expand the footprint of the South Stockpile to approximately 714 acres. It is estimated that the resulting vertical and horizontal expansion will accommodate approximately 11 million tons of material in the South Stockpile. The South Stockpile Fill-In area is within the modeled area of open pit hydrologic containment, and surface water runoff will drain to the open pit. In the event a portion of the South Stockpile Fill-In is outside of the area of open pit hydrologic containment, any leachate would be captured by the South Stockpile pregnant leach solution collection system.

Conditions of Approval

This Discharge Permit Amendment applies to the existing Whitewater Leach System Discharge Permit, DP-526. The condition listed below replaces the condition with the same number in the DP-526, which is still in effect pursuant to Subsection F of 20.6.3106 NMAC. This condition, and all other conditions in the Discharge Permit, must be complied with by the permittee and are enforceable by NMED. Strikethrough of deleted text in the condition below is shown for emphasis.

Stockpile Limits:

2. Chino shall not exceed the land surface areas and volumes currently projected through year 2006 as presented in the proposed plan located in Table 5.3 from the March 2001 Closure/Closeout Plan, or more current version, for the West Stockpile (625 acres); Upper South Waste Rock Pile (313 acres) and South Stockpile (~~692 acres~~714 acres). Chino shall request from NMED a permit modification or amendment prior to expanding leach ore

stockpile and waste rock pile limits beyond the 2006 projections. [20.6.2.3106.C and 3109 NMAC]

In addition to the condition in DP-526 listed above that has been changed, the following conditions are added to DP-526 and continued upon renewal, if applicable. The permittee shall comply with these conditions, which are enforceable by NMED.

1. Design, construction and location of the South Stockpile Fill-In shall be as outlined above and described in the Request and in accordance with Section 20.6.7.21 NMAC of the Copper Mine Rule.
2. Placement of the waste rock shall be implemented in such a way to plan for closure and be in accordance with an operating plan that describes, among other things, sequencing of material placement on an annual basis. [Subsection A of 20.6.7.18 and 20.6.7.21]
3. The permittee shall not leach the South Stockpile Fill-In. [Section 20.6.2.3109 NMAC]
4. The permittee shall comply with all applicable contingency requirements described in Section 20.6.7.30 NMAC of the Copper Mine Rule including the requirement to notify NMED of any evidence of slope instability of the placed material (i.e., Subsection H of 20.6.7.30 NMAC).
5. The material shall be placed in accordance with NMED approved material characterization and handling plans. [Section 20.6.7.21 NMAC]
6. Stormwater run-on shall be diverted or contained to minimize contact between stormwater run-on and the stockpiled material. [Paragraph (2) of Subsection B of 20.6.7.21 NMAC]
7. The South Stockpile Fill-In shall be designed and located to minimize the open pit surface drainage area to the extent practicable. [Subsection E of 20.6.7.24 NMAC]
8. Any changes made to the South Stockpile as a result of the South Stockpile Fill-In shall be accounted for in the updated closure/closeout plan submitted to NMED as part of the DP-1340 renewal process. The DP-1340 renewal process is already underway, therefore any changes shall be accounted for under subsequent renewal. [Section 20.6.2.3107 NMAC and 20.6.7.33 NMAC]

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-526 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee 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 Paragraph (4) of Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit Amendment shall be the same as the term of DP-526. The timely submission of the Discharge Permit renewal application on June 6, 2011 keeps the existing permit and associated amendment(s) effective until the renewal process is complete. [Subsection F of 20.6.2.3106 NMAC]

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

Please contact Brad Reid of the Mining Environmental Compliance Section (MECS) at 505-827-2963 with any questions.

Sincerely,



Phyllis Bustamante, Acting Chief
Ground Water Quality Bureau

PB:BR

cc: William Katz, Chief Environmental Engineer, Chino Mines Company (signed PDF: William_Katz@FMI.com)
Kariann Sokulsky, Chino Mines Company (signed PDF: Kariann_Sokulsky@fmi.com@FMI.com)
Lynn Lande, Chief Environmental Engineer, Chino Mines Company (signed PDF: Lynn_Lande@FMI.com)
Gila Resources Information Project (signed PDF: grip@gilaresources.info)
Kurt Vollbrecht, Program Manager, GWQB-MECS (signed PDF: kurt.vollbrecht@state.nm.us)
George Llewellyn, GWQB-MECS, Silver City Office (signed PDF: george.llewellyn@state.nm.us)
Chris Eustice, MMD Permit Lead (signed PDF: chris.eustice@state.nm.us)

Summary of DP-526 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|--|--------------------------------|
| Discharge Permit Renewal and Modification, Whitewater Leach System, DP-526 | October 3, 2006 |
| Discharge Permit Amendments 06-01, DP-526, DP-213 & DP-214, Placement of Hidalgo Copper Bearing Material on the Chino South Stockpile and Chino Mill Intermediate Ore Stockpile; and Staging of Hidalgo Material on the Chino Older Tailings Impoundments; Freeport – McMoRan Chino Mine | May 9, 2008 |
| Discharge Permit Amendment 06-02, DP-526; Placement of Reservoir 7 Sediments on the South Stockpile | January 26, 2010 |
| Discharge Permit Amendment 06-03, DP-526; Placement of Reservoir 7 Sediments on the South Stockpile | November 24, 2010 |
| Discharge Permit Amendment 06-04, DP-526; Application of Process Solutions from the PLS Tank to the West Stockpile | November 24, 2010 |
| Discharge Permit Amendment 06-05, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoRan Chino Mines Company | June 22, 2012 |
| Discharge Permit Amendment 06-06, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation | August 6, 2013 |
| Discharge Permit Amendment 06-07, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation - REISSUED | October 17, 2013 |
| Discharge Permit Amendment 06-08, DP-526, Haul Truck Wash Relocation | November 22, 2013 |
| Discharge Permit Amendment 06-09, DP-526, Frog Pond Relocation | March 27, 2014 |
| Discharge Permit Amendment 06-10, DP-526, South Stockpile Fill-in | May 5, 2015 |



SUSANA MARTINEZ
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JOHN A. SANCHEZ
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NEW MEXICO
ENVIRONMENT DEPARTMENT

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RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

November 23, 2015

John Brack, President
Freeport-McMoRan - Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment 06-11, DP-526, Conveyance Channel and Piping along West Stockpile at Dam 13 and Dam 14

Dear Mr. Brack:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport McMoRan Copper and Gold - Chino Mines Company (permittee) titled, *Whitewater Leach System – Discharge Permit 526 (DP-526) Amendment Request; Diversion Channel and Piping Along West Stockpile at Dam 13 and Dam 14*, ("Amendment Request"), dated July 17, 2015, and received by NMED on July 20, 2015. On August 19, 2015, NMED requested additional information from the permittee in order to satisfy technical completeness. The permittee submitted the requested additional information in a document dated October 21, 2015 and received by NMED on October 26, 2015. Following additional discussions and clarifications with the permittee, the Amendment Request was deemed technically complete on November 10, 2015.

In the Amendment Request, the permittee requests to amend DP-526, Whitewater Leach System, to add a conveyance channel and piping above Dam 13 and 14 on the West Stockpile with intent to capture impacted stormwater and entrained sediment from the West Stockpile. The facilities covered under DP-526 are located approximately 2 miles northeast of Bayard and include the West, South, and Upper South Stockpiles and the reach of Whitewater Creek from Hanover Creek to the northern end of Hurley at the northern boundary of the former Lake One in Sections 28, 29, 32, 33 and 34, T17S, R12W; Sections 3, 4, 5, 6, 7, 18, 19, 30 and 31, T18S, R12W; and Sections 12 and 13, T18S, R13W in Grant County.

EXHIBIT

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NMED issues this Discharge Permit Amendment 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 and 20.6.7 NMAC. As defined in Section 20.6.7.7 NMAC, this Amendment does not result in significant changes to the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit Renewal/Modification, DP-526, issued to the permittee on October 3, 2006. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.7.14 NMAC and Subsection C of 20.6.2.3109 NMAC have been met.

Background

The purpose of this Discharge Permit Amendment is to authorize construction of a conveyance channel (Phase One) and piping (Phase Two) to better manage and capture impacted stormwater and sediment currently discharging to Dam 13 during storm events. The channel will be built at the base of the West Stockpile and will convey impacted stormwater and sediment to the larger capacity Dam 14.

Amendment Description

Phase One:

Phase One involves construction of the conveyance channel along the base of the western side of West Stockpile between Dam 13 and 14. The channel will be approximately 600 feet in length and will be a cut and fill channel lined with 6" – 8" rip rap. The channel will be approximately four feet wide, five feet deep with 1:1 slopes, and sized to handle a 100-year, 24-hour storm event.

Phase Two:

Phase Two involves building a pipeline from Dam 13 to Dam 14 in order to convey impacted stormwater and/or process water from Dam 13 to Dam 14.

Conditions of Approval

This Discharge Permit Amendment applies to the existing Whitewater Leach System Discharge Permit, DP-526, which is still in effect pursuant to Subsection F of 20.6.3106 NMAC. The following conditions will be added to the effective DP-526 and continued upon renewal. The permittee shall comply with these conditions, which are enforceable by NMED.

1. Design, construction and location of the conveyance structure shall be as outlined above and described in the Request, and in accordance with the requirements of Subparagraph (f) of 20.6.7.17.D(2) NMAC.
2. The permittee shall comply with all applicable contingency requirements described in Section 20.6.7.30 NMAC of the Copper Mine Rule including the requirement to notify NMED of any significant erosion or condition that may compromise the conveyance structure (i.e., Subsection I of 20.6.7.30 NMAC).

3. The permittee shall submit construction plans and specifications for approval at least 90 days prior to construction of Phase 2 of the Amendment Request that are in accordance with the applicable requirements of Subsection A of 20.6.7.23 NMAC and 20.6.7.17 NMAC.

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-526 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee 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

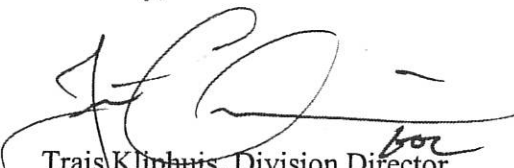
Pursuant to Paragraph (4) of Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit Amendment shall be the same as the term of DP-526. The timely submission of the Discharge Permit renewal application on June 6, 2011 keeps the existing permit and associated amendment(s) effective until the renewal process is complete. [Subsection F of 20.6.2.3106 NMAC]

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

NMED appreciates the initiative taken by the permittee to propose this project with intent to better manage impacted stormwater and sediment discharging off the West Stockpile to the Hanover Dam system. If you have any questions, please contact Brad Reid at (505) 827-2963 or Kurt Vollbrecht, Mining Environmental Compliance Section (MECS) Program Manager, at (505) 827-0195.

Sincerely,



Trais Kliphuis, Division Director
Water Protection Division

TK:BR

cc: William Katz, Chief Environmental Engineer, Chino Mines Company (signed PDF: william_katz@fmi.com)
Christian Krueger, Chino Mines Company (signed PDF: christian_krueger@fmi.com)
Kurt Vollbrecht, Program Manager, GWQB-MECS (signed PDF: kurt.vollbrecht@state.nm.us)
Gila Resources Information Project (signed PDF: grip@gilaresources.info)
David Mercer, GWQB-MECS, (signed PDF: david.mercer@state.nm.us)
George Llewellyn, GWQB-MECS, (signed PDF: george.llewellyn@state.nm.us)
Chris Eustice, Chino Permit Lead, MMD (signed PDF: chris.eustice@state.nm.us)

Summary of DP-526 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|--|-------------------------|
| Discharge Permit Renewal and Modification, Whitewater Leach System, DP-526 | October 3, 2006 |
| Discharge Permit Amendments 06-01, DP-526, DP-213 & DP-214, Placement of Hidalgo Copper Bearing Material on the Chino South Stockpile and Chino Mill Intermediate Ore Stockpile; and Staging of Hidalgo Material on the Chino Older Tailings Impoundments; Freeport – McMoRan Chino Mine | May 9, 2008 |
| Discharge Permit Amendment 06-02, DP-526; Placement of Reservoir 7 Sediments on the South Stockpile | January 26, 2010 |
| Discharge Permit Amendment 06-03, DP-526; Placement of Reservoir 7 Sediments on the South Stockpile | November 24, 2010 |
| Discharge Permit Amendment 06-04, DP-526; Application of Process Solutions from the PLS Tank to the West Stockpile | November 24, 2010 |
| Discharge Permit Amendment 06-05, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoRan Chino Mines Company | June 22, 2012 |
| Discharge Permit Amendment 06-06, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation | August 6, 2013 |
| Discharge Permit Amendment 06-07, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation - REISSUED | October 17, 2013 |
| Discharge Permit Amendment 06-08, DP-526, Haul Truck Wash Relocation | November 22, 2013 |
| Discharge Permit Amendment 06-09, DP-526, Frog Pond Relocation | March 27, 2014 |
| Discharge Permit Amendment 06-10, DP-526, South Stockpile Fill-in | May 5, 2015 |
| Discharge Permit Amendment 06-11, DP-526, Conveyance Channel and Piping along West Stockpile at Dam 13 and Dam 14 | November 23, 2015 |



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KYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 8, 2016

Sherry Burt-Kested, Environmental Manager
Freeport-McMoRan Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment 06-12, DP-526, Update to Stormwater Management Plan, Lee Hill Area

Dear Ms. Burt-Kested:

The Mining Environmental Compliance Section (MECS) of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport-McMoRan Chino Mines Company (permittee) titled, *Freeport-McMoRan Chino Mines Company – Discharge Permit 526 (DP-526) Amendment Request for Inclusion of the Interim Lee Hill Stormwater Management Plan*, (“Amendment Request”), dated May 19, 2016, and received by NMED on May 23, 2016. In the Amendment Request, the permittee requests to amend DP-526, Whitewater Leach System, for the construction of positive drainage features and stormwater conveyance structures to divert storm water away from the Lee Hill Open Pit and Lee Hill area in order to improve stability of the open pit high walls. The facilities covered under DP-526 include the West, South, and Upper South Stockpiles and the reach of Whitewater Creek from Hanover Creek to the northern boundary of the former Lake One, stretching from approximately 2 miles northeast of Bayard to the Town of Hurley in Sections 28, 29, 32, 33 and 34, T17S, R12W; Sections 3, 4, 5, 6, 7, 18, 19, 30 and 31, T18S, R12W; and Sections 12 and 13, T18S, R13W in Grant County.

NMED issues this Discharge Permit Amendment 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 and 20.6.7 NMAC. As defined in Section 20.6.7.7 NMAC, this Amendment does not result in significant changes to the quantity or quality

EXHIBIT

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of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit Renewal and Modification, DP-526, issued to the permittee on October 3, 2006. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.7.14 NMAC and Subsection C of 20.6.2.3109 NMAC have been met.

Background

NMED previously authorized placement of waste rock in the area above Lee Hill to create positive drainage in order to fulfill corrective action requirements pursuant to Condition #6 of the DP-526 amendment letter titled, "Discharge Permit Amendment 06-07, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation – REISSUED," dated October 17, 2013. The purpose of this Discharge Permit Amendment is to authorize construction of four stormwater impoundments and associated pipelines to better route stormwater away from the Lee Hill Pit high wall to improve open pit stability. The area being addressed, located between the relocated pipeline corridor and the northwest portion of the Lee Hill pit rim haul road, generates approximately 11.5 acre-feet of stormwater runoff during a 100-year, 24-hour precipitation event.

The addition of the four new stormwater impoundments and associated pipelines will be integrated as a new component to the stormwater management plan for the Chino North Mine Area as referenced by Appendix D of the NMA Master Document dated October 8, 2015. The updates to the stormwater management plan authorized by this amendment are within the Open Pit Surface Drainage Area.

Amendment Description

The stormwater management plan includes placing waste rock fill material in a 4.3 acre area as previously authorized, and installation of three synthetically lined stormwater impoundments with a combined capacity of 10 acre-feet (Impoundments 526-1, Impoundment 526-2, and Impoundment 526-3). It also includes installation of a Secondary Containment Sump at the base of the placed fill material area (i.e., lowest elevation in the area) to capture stormwater and process water releases from pipelines that lie immediately north of this area. Stormwater from the impoundments will drain to Reservoir 4A during normal conditions, and to Estrella Pit as needed during upset conditions.

Conditions of Approval

This Discharge Permit Amendment applies to the existing Whitewater Leach System Discharge Permit, DP-526, which is still in effect pursuant to Subsection F of 20.6.3106 NMAC. The following conditions will be added to the effective DP-526 and continued upon renewal. The permittee shall comply with these conditions, which are enforceable by NMED.

1. Design, construction and location of the stormwater impoundments and associated pipelines shall be as outlined above and described in the Amendment Request and in accordance with applicable requirements of Section 20.6.7.D(2)(e), 20.6.7.17.D(3) NMAC as applicable, and 20.6.7.17.D(4) NMAC.
2. The permittee shall comply with all applicable contingency requirements described in Section 20.6.7.30 NMAC of the Copper Mine Rule.
3. Any leaks or spills from any of the impoundments and associated pipelines shall be shall be recorded, reported and corrected pursuant to Sections 20.6.2.1203 NMAC and Paragraphs (2) and (3) of Subsection B of 20.6.7.29 NMAC.
4. If the design changes from the Amendment Request, the Permittee shall submit updated plans and specifications for NMED approval prior to construction.

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-526 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee 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 Paragraph (4) of Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit Amendment shall be the same as the term of DP-526. The timely submission of the Discharge Permit renewal application on June 6, 2011 keeps the existing permit and associated amendment(s) effective until the renewal process is complete. [Subsection F of 20.6.2.3106 NMAC]

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

If you have any questions, please contact Brad Reid at (505) 827-2963 or Kurt Vollbrecht, MECS Program Manager, at (505) 827-0195.

Sherry Burt-Kested - DP-526, Amendment 06-12
June 8, 2016
Page 4 of 4

Sincerely,



Trais Kliphuis, Division Director
Water Protection Division

TK:BR

cc: Sherry Burt-Kested, Environmental Manager, Chino Mines Company (signed copy: Sherry_Burt-Kested@FMI.com)
Christian Krueger, Chino Mines Company (signed copy: christian_krueger@fmi.com)
Kariann Sokulsky, Chino Mines Company (signed copy: kariann_sokulsky@fmi.com)
Kurt Vollbrecht, Program Manager, MECS (signed copy: kurt.vollbrecht@state.nm.us)
Gila Resources Information Project (signed copy: grip@gilaresources.info)
David Ennis, MMD (signed copy: david.ennis@state.nm.us)

Summary of DP-526 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|--|-------------------------|
| Discharge Permit Renewal and Modification, Whitewater Leach System, DP-526 | October 3, 2006 |
| Discharge Permit Amendments 06-01, DP-526, DP-213 & DP-214, Placement of Hidalgo Copper Bearing Material on the Chino South Stockpile and Chino Mill Intermediate Ore Stockpile; and Staging of Hidalgo Material on the Chino Older Tailings Impoundments; Freeport – McMoRan Chino Mine | May 9, 2008 |
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| Discharge Permit Amendment 06-05, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoRan Chino Mines Company | June 22, 2012 |
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| Discharge Permit Amendment 06-09, DP-526, Frog Pond Relocation | March 27, 2014 |
| Discharge Permit Amendment 06-10, DP-526, South Stockpile Fill-in | May 5, 2015 |
| Discharge Permit Amendment 06-11, DP-526, Conveyance Channel and Piping along West Stockpile at Dam 13 and Dam 14 | November 23, 2015 |
| Discharge Permit Amendment 06-12, DP-526, Update to Stormwater Management Plan, Lee Hill Area | June 8, 2016 |



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KYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 8, 2016

Sherry Burt-Kested, Environmental Manager
Freeport-McMoRan Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment 06-12, DP-526, Update to Stormwater Management Plan, Lee Hill Area

Dear Ms. Burt-Kested:

The Mining Environmental Compliance Section (MECS) of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport-McMoRan Chino Mines Company (permittee) titled, *Freeport-McMoRan Chino Mines Company – Discharge Permit 526 (DP-526) Amendment Request for Inclusion of the Interim Lee Hill Stormwater Management Plan*, (“Amendment Request”), dated May 19, 2016, and received by NMED on May 23, 2016. In the Amendment Request, the permittee requests to amend DP-526, Whitewater Leach System, for the construction of positive drainage features and stormwater conveyance structures to divert storm water away from the Lee Hill Open Pit and Lee Hill area in order to improve stability of the open pit high walls. The facilities covered under DP-526 include the West, South, and Upper South Stockpiles and the reach of Whitewater Creek from Hanover Creek to the northern boundary of the former Lake One, stretching from approximately 2 miles northeast of Bayard to the Town of Hurley in Sections 28, 29, 32, 33 and 34, T17S, R12W; Sections 3, 4, 5, 6, 7, 18, 19, 30 and 31, T18S, R12W; and Sections 12 and 13, T18S, R13W in Grant County.

NMED issues this Discharge Permit Amendment 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 and 20.6.7 NMAC. As defined in Section 20.6.7.7 NMAC, this Amendment does not result in significant changes to the quantity or quality

EXHIBIT

E27

of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit Renewal and Modification, DP-526, issued to the permittee on October 3, 2006. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Section 20.6.7.14 NMAC and Subsection C of 20.6.2.3109 NMAC have been met.

Background

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The addition of the four new stormwater impoundments and associated pipelines will be integrated as a new component to the stormwater management plan for the Chino North Mine Area as referenced by Appendix D of the NMA Master Document dated October 8, 2015. The updates to the stormwater management plan authorized by this amendment are within the Open Pit Surface Drainage Area.

Amendment Description

The stormwater management plan includes placing waste rock fill material in a 4.3 acre area as previously authorized, and installation of three synthetically lined stormwater impoundments with a combined capacity of 10 acre-feet (Impoundments 526-1, Impoundment 526-2, and Impoundment 526-3). It also includes installation of a Secondary Containment Sump at the base of the placed fill material area (i.e., lowest elevation in the area) to capture stormwater and process water releases from pipelines that lie immediately north of this area. Stormwater from the impoundments will drain to Reservoir 4A during normal conditions, and to Estrella Pit as needed during upset conditions.

Conditions of Approval

This Discharge Permit Amendment applies to the existing Whitewater Leach System Discharge Permit, DP-526, which is still in effect pursuant to Subsection F of 20.6.3106 NMAC. The following conditions will be added to the effective DP-526 and continued upon renewal. The permittee shall comply with these conditions, which are enforceable by NMED.

1. Design, construction and location of the stormwater impoundments and associated pipelines shall be as outlined above and described in the Amendment Request and in accordance with applicable requirements of Section 20.6.7.D(2)(e), 20.6.7.17.D(3) NMAC as applicable, and 20.6.7.17.D(4) NMAC.
2. The permittee shall comply with all applicable contingency requirements described in Section 20.6.7.30 NMAC of the Copper Mine Rule.
3. Any leaks or spills from any of the impoundments and associated pipelines shall be shall be recorded, reported and corrected pursuant to Sections 20.6.2.1203 NMAC and Paragraphs (2) and (3) of Subsection B of 20.6.7.29 NMAC.
4. If the design changes from the Amendment Request, the Permittee shall submit updated plans and specifications for NMED approval prior to construction.

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-526 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee 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 Paragraph (4) of Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit Amendment shall be the same as the term of DP-526. The timely submission of the Discharge Permit renewal application on June 6, 2011 keeps the existing permit and associated amendment(s) effective until the renewal process is complete. [Subsection F of 20.6.2.3106 NMAC]

Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

If you have any questions, please contact Brad Reid at (505) 827-2963 or Kurt Vollbrecht, MECS Program Manager, at (505) 827-0195.

Sherry Burt-Kested - DP-526, Amendment 06-12
June 8, 2016
Page 4 of 4

Sincerely,



Trais Kliphuis, Division Director
Water Protection Division

TK:BR

cc: Sherry Burt-Kested, Environmental Manager, Chino Mines Company (signed copy: Sherry_Burt-Kested@FMI.com)
Christian Krueger, Chino Mines Company (signed copy: christian_krueger@fmi.com)
Kariann Sokulsky, Chino Mines Company (signed copy: kariann_sokulsky@fmi.com)
Kurt Vollbrecht, Program Manager, MECS (signed copy: kurt.vollbrecht@state.nm.us)
Gila Resources Information Project (signed copy: grip@gilaresources.info)
David Ennis, MMD (signed copy: david.ennis@state.nm.us)

Summary of DP-526 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|--|-------------------------|
| Discharge Permit Renewal and Modification, Whitewater Leach System, DP-526 | October 3, 2006 |
| Discharge Permit Amendments 06-01, DP-526, DP-213 & DP-214, Placement of Hidalgo Copper Bearing Material on the Chino South Stockpile and Chino Mill Intermediate Ore Stockpile; and Staging of Hidalgo Material on the Chino Older Tailings Impoundments; Freeport – McMoRan Chino Mine | May 9, 2008 |
| Discharge Permit Amendment 06-02, DP-526; Placement of Reservoir 7 Sediments on the South Stockpile | January 26, 2010 |
| Discharge Permit Amendment 06-03, DP-526; Placement of Reservoir 7 Sediments on the South Stockpile | November 24, 2010 |
| Discharge Permit Amendment 06-04, DP-526; Application of Process Solutions from the PLS Tank to the West Stockpile | November 24, 2010 |
| Discharge Permit Amendment 06-05, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoRan Chino Mines Company | June 22, 2012 |
| Discharge Permit Amendment 06-06, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation | August 6, 2013 |
| Discharge Permit Amendment 06-07, DP-526, Whitewater Leach System, Pipelines and Power Line Relocation - REISSUED | October 17, 2013 |
| Discharge Permit Amendment 06-08, DP-526, Haul Truck Wash Relocation | November 22, 2013 |
| Discharge Permit Amendment 06-09, DP-526, Frog Pond Relocation | March 27, 2014 |
| Discharge Permit Amendment 06-10, DP-526, South Stockpile Fill-in | May 5, 2015 |
| Discharge Permit Amendment 06-11, DP-526, Conveyance Channel and Piping along West Stockpile at Dam 13 and Dam 14 | November 23, 2015 |
| Discharge Permit Amendment 06-12, DP-526, Update to Stormwater Management Plan, Lee Hill Area | June 8, 2016 |



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Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT
Ground Water Quality Bureau

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DAVE MARTIN
Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

January 12, 2012

William M. Katz, Chief Environmental Engineer
Environment, Land and Water
Chino Mines Company
P. O. Box 10
Bayard, NM 88023

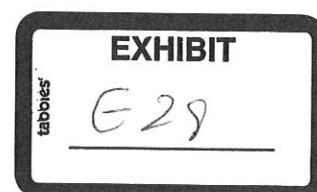
RE: DP-591 Amendment Approval, Chino SXEW In-fill and Road Project, Freeport-McMoRan Chino Mines Company

Dear Mr. Katz:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Chino Mines Company (Chino) titled, *Condition 44 Amendment Request to Improve Access Areas* (Letter) dated December 20, 2011. In the Letter, Chino requests to amend the September 1, 2006 Discharge Permit Renewal and Modification (DP-591) for in-filling several areas around the Solution Extraction-Electrowinning Plant (SX/EW) to improve vehicle access. The facilities covered under DP-591 are located approximately 4 miles northeast of Bayard in Sections 25 and 26, T17S, R12W in Grant County.

Amendment Description

Overburden material derived from mining within the Chino Open Pit will be used to in-fill 5 areas at the Chino SXEW as shown on the figure presented in the Letter. The approximate volume of fill necessary for each area is also designated on the aforementioned figure. The fill material will be tested for acid generating potential using the paste pH method prior to transporting the material to the SX/EW plant for placement. In addition to the in-fill areas, the material in the area designated as "Parking Cut Area" will be excavated and placed within In-Fill Areas 1 through 4 only.



Permit Condition

DP-591 shall be amended as follows.

1. Chino is authorized to transport and place non-acid generating mine material in the five areas as shown on the figure contained within the December 20, 2011 request. All material transported to the SX/EW for this infill project will be tested prior to transport to insure paste pH values are no less than 6. Material from the Parking Cut Area will **not** be placed within In-Fill Area 5.

Other Requirements

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged 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

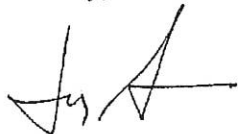
Pursuant to 20.6.2.3109.H.4 NMAC, the term of this Discharge Permit Amendment for DP-591 shall be the same as the remaining term of the DP-591, which has an expiration date of September 1, 2011. Chino has submitted an application for renewal at least 120 days before the permit expiration date. The timely submission of the renewal request keeps the permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

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 Kurt Vollbrecht of the Mining Environmental Compliance Section at (505) 827-0195 with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jerry Schoeppner', with a stylized flourish at the end.

Jerry Schoeppner, Acting Chief
Ground Water Quality Bureau

William M. Katz, Chino
January 12, 2012
Page 3 of 3

JS:kmv

xc: Mary Ann Menetrey, Program Manager, MECS-GWQB
Chris Eustice, NM Mining and Minerals Division
Sally Smith, GRIP



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JOHN A. SANCHEZ
Lieutenant Governor

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www.nmenv.state.nm.us

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

January 17, 2012

William M. Katz, Chief Environmental Engineer
Environment, Land and Water
Chino Mines Company
P. O. Box 10
Bayard, NM 88023

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William M. Katz, Chief E
Environment, Land & Wa
PO Box 10
Bayard, NM 88023

PS Form 3800, August 2006

7008 1830 0003 4177 2012

RE: DP-591 Amendment Approval, Southside PLS Pipeline Re-route, Freeport-McMoRan Chino Mines Company

Dear Mr. Katz:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Chino Mines Company (Chino) titled, *Discharge Plan 591 (DP-591) Condition 44 Amendment Request to Re-route the Southside PLS Pipeline* (Letter) dated January 9, 2012. In the Letter, Chino requests to amend the September 1, 2006 Discharge Permit Renewal and Modification (DP-591) for installation of a bypass pipeline at the Chino Solution Extraction/Electrowining (SXEW) Plant. The facilities covered under DP-591 are located approximately 4 miles northeast of Bayard in Sections 25 and 26, T17S, R12W in Grant County.

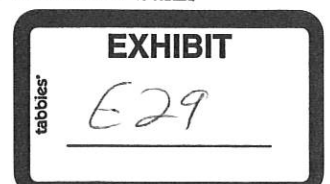
Amendment Description

Chino requests to install 1400' of HDPE pipeline and a 30 inch by 24 inch wye junction from the stainless steel raffinate tank to the PLS Feed Pond. The pipeline and wye junction will give Chino the option of transporting PLS from the Southside area directly to the PLS Feed Pond or to the top of the Lampbright Leach Stockpile via the Raffinate Tank. During the wye junction tie in the Southside PLS pipeline will drain directly into Reservoir 7 as allowed pursuant to Condition 4 of DP-591.

Permit Condition

DP-591 shall be amended as follows.

1. Chino is authorized to install a bypass pipeline between the stainless steel Raffinate Tank



and the PLS Feed Pond at the Chino SXEW Plant.

Other Requirements

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged 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-591 shall be the same as the remaining term of the DP-591, which has an expiration date of September 1, 2011. Chino has submitted an application for renewal at least 120 days before the permit expiration date. The timely submission of the renewal request keeps the permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

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 Kurt Vollbrecht of the Mining Environmental Compliance Section at (505) 827-0195 with any questions.

Sincerely,

Handwritten signature of Jerry Schoeppner in cursive, followed by the text "for:".

Jerry Schoeppner, Acting Chief
Ground Water Quality Bureau

JS:kmv

xc: Mary Ann Menetrey, Program Manager, MECS-GWQB
Chris Eustice, NM Mining and Minerals Division
Sally Smith, GRIP



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Lieutenant Governor

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RYAN FLYNN
Secretary - Designate

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

November 22, 2013

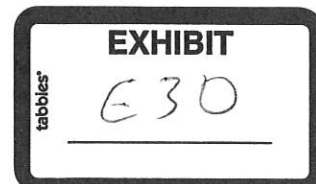
John Brack, VP of Chino Acquisition, Inc.
Chino Mines Company
PO Box 10
Bayard, NM 88023

RE: Discharge Permit Amendment 06-03, DP-591, Addition of Wash Pad to Lampbright Fast Fuel Dock

Dear Mr. Brack:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport McMoRan Copper and Gold - Chino Mines Company (permittee) titled, *Discharge Permit 376 (DP-376) Amendment Request for Addition of Wash Pad to the Lampbright Fast Fuel Dock* (Letter), dated August 27, 2013 and received by NMED on August 30, 2013. In the Letter, the permittee requests to amend the Discharge Permit, DP-376, for the addition of an equipment wash pad, which is part of the Southwest Energy facility (also to be moved), to Lampbright's Fast Fuel Dock area. In conversations with Mr. Christian Krueger of Chino Mines Company (permit contact for DP-376 and DP-591), however, it was determined that the amendment request is more applicable to DP-591, Solution Extraction-Electrowinning (SX/EW) Plant, Reservoir 6, and Reservoir 7. This is because the Lampbright Fast Fuel Dock and proposed Southwest Energy Facility wash pad are located within the DP-591 permitted area and therefore, outside the DP-376 permitted area. The facilities covered under DP-591 are located approximately 4 miles northeast of Bayard and 3 miles southeast of Hanover in Section 25 and 26, T17S, R12W in Grant County.

NMED issues this Discharge Permit Amendment 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. This Discharge Permit Amendment does not result in significant changes in the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the



Discharge Permit Renewal, DP-591, issued to the permittee on September 1, 2006. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met.

Background

The purpose of this Discharge Permit Amendment is to authorize relocation of the Southwest Energy Facility and accompanying wash pad to accommodate expansion of Chino's Lee Hill sub pit. The permittee anticipates that push-back of the Lee Hill sub pit wall will commence in January 2014. Because the proposed push-back will interfere with the existing Southwest Energy Facility, it is necessary to relocate it. The new location will be at the same location as the Lampbright Fast Fuel Dock, which is approximately one quarter mile southeast of Reservoir 7.

Amendment Description

Up to 1000 gallons per day of wash water from the equipment wash pad will be discharged to Reservoir 7 for reuse. The wash pad will be equipped with spray nozzles to wash down equipment including approximately six Southwest Energy trucks/vehicles. Wash water, mud/grit trap waste, and debris will collect in a mud sump at the bottom of the wash ramp. Solutions from the mud sump will flow through a pipe into an oil-water separator. Water exiting the oil-water separator will be gravity conveyed through a 16-inch HDPE pipeline that will connect via a reducing valve to an existing 18-inch pipeline that discharges to Reservoir 7. Oil from the oil water separator will be containerized and transported offsite for disposal at an approved disposal facility. Mud/grit trap waste that collects in the mud sump will be periodically cleaned out and used for berm construction around the Southwest Energy Facility/Lampbright Fast Fuel Dock, or will be disposed of on the Lampbright Stockpile. The wash pad will be constructed using reinforced cast-in-place concrete.

Permit Conditions

This Discharge Permit Amendment applies to the existing Solution Extraction-Electrowinning (SX/EW) Plant, Reservoir 6, and Reservoir 7 Discharge Permit, DP-591, which is still in effect pursuant to 20.6.3106.F NMAC. The following conditions will be added to the effective DP-591 and continued upon renewal. The permittee shall comply with these conditions, which are enforceable by NMED.

1. The permittee is authorized to relocate and construct the wash pad and associated Southwest Energy facility as outlined above and described in the Letter. [Section 20.6.2.3109 NMAC]
2. The truck or equipment wash pad shall remain within the area identified in the Letter. [Section 20.6.2.3109 NMAC]
3. Wash water generated at the wash pad shall be contained within the designed containment pad, mud sump, and oil-water separator until treated to meet applicable

standards for discharge or conveyed to the process water circuit (i.e., Reservoir 7).
[Section 20.6.2.3109 NMAC]

4. Any leaks or spills of wash water from the containment pad, mud sump, and oil-water separator shall be recorded, reported and corrected pursuant to Section 20.6.2.1203 NMAC.
5. Any wastes generated from the oil water separator, mud sump, or the tank system shall be disposed of offsite in accordance with applicable laws or onsite in a manner approved by the department. [Section 20.6.2.3109 NMAC]
6. Design and construction of the Haul Truck Wash will be in accordance with Section 20.6.7.26 NMAC of the Copper Mine Rules.

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-591 that remain unchanged which are enforceable by NMED pursuant to Section 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 the permittee 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 the DP-591 shall be the same as the term of DP-591. The timely submission of the Discharge Permit renewal application on May 6, 2011 keeps the existing permit and associated amendment(s) effective until the renewal process is complete. [Subsection F of 20.6.2.3106 NMAC]

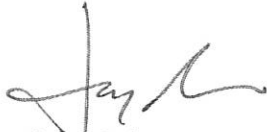
Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

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

Please contact Kurt Vollbrecht of the Mining Environmental Compliance Section at 505-827-0195 with any questions.

John Brack, SX-EX and Reservoirs 6 and 7, DP-591
November 22, 2013
Page 4

Sincerely,



Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:BR

cc: Christian Krueger, Chino Mines Company (signed PDF copy sent via e-mail to:
Christian_Krueger@FMI.com)
GRIP (signed PDF copy sent via electronic mail to: grip@gilaresources.info)
George Llewellyn, GWQB-MECS, Silver City Office (signed PDF copy sent via
electronic mail to: george.llewellyn@state.nm.us)
Chris Eustice, MMD Permit Lead (signed PDF copy sent via electronic mail to:
chris.eustice@state.nm.us)

Summary of DP-591 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|--|-------------------------|
| Discharge Permit Renewal and Modification, Solution Extraction-Electrowinning Plant and Reservoirs 6 and 7 | September 1, 2006 |
| DP-591 Amendment Approval 06-01, Chino SXEW In-fill and Road Project, Freeport McMoRan Chino Mines Company | January 12, 2012 |
| DP-591 Amendment Approval 06-02, Southside PLS Pipeline Re-route, Freeport McMoRan Chino Mines Company | January 17, 2012 |
| Discharge Permit Amendment 06-03, DP-591, Addition of Wash Pad to Lampbright Fast Fuel Dock | November 22, 2013 |



BILL RICHARDSON
GOVERNOR

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



RON CURRY
SECRETARY

CINDY PADILLA
DEPUTY SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

February 8, 2007

Thomas L. Shelley
Environment, Land & Water
New Mexico Operations
Phelps Dodge Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

RE: Discharge Permit Amendment Requests for the Savannah Pit and East Main Leach System, DP-670, Phelps Dodge Tyrone, Inc.

Dear Mr. Shelley:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has received two letters from Phelps Dodge Tyrone, Inc. (PDTI) requesting amendments to the Discharge Permit for the Savannah Pit and East Main Leach System, DP-670. The first letter dated February 22, 2006, requested an amendment to include impoundments and a pumping system to remove ground water inflow and storm water collecting in the bottom of Savannah Pit. The second letter dated January 19, 2007, requested an amendment to change to frequency of monitoring reports from quarterly to semi-annually and make other minor changes in the monitoring requirements.

PDTI is hereby notified that the amendment requested in the first letter to incorporate the new pumping system will require a discharge permit modification rather than an amendment. PDTI must respond in writing acknowledging this permitting action and request that permit changes be conducted as a permit modification. In addition to the technical information submitted in the previous letters, PDTI must also include the estimated discharge volumes to the Savannah Pit and from the pit to the Savannah South Sump. The reason for requiring a permit modification is that the impoundments and pumping system constitute a new process system and discharge location. Pursuant to Condition 3A of the December 13, 2004 Discharge Permit Renewal and Modification, NMED accepts the February 22, 2006 amendment request as the Notice of Intent

EXHIBIT

tabbles

E31

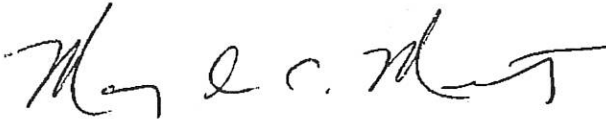
Mr. Tom L. Shelley
February 8, 2007
Page 2 of 2

that PDTI was required to submit regarding removal of water from the Savannah Pit. The permit changes requested in both letters will be incorporated into the new permit modification.

Pursuant to Section 20.6.2.3108 NMAC, the modification of DP-670 will require public notice. The request for the discharge permit modification must include a filing fee of \$100.00 in accordance with Section 20.6.2.3114 NMAC. A permit fee of \$7,500.00 will be assessed at the time the discharge permit modification is issued.

Please respond to this letter by **March 15, 2007**. If you have any questions, please contact me at 505-827-2944 or Clint Marshall of the Mining Environmental Compliance Section at 505-827-0027.

Sincerely,



Mary Ann Menetrey, Program Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau

MAM/CLM

xc: Mary Ann Menetrey, Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City
DP-670 Correspondence file



SUSANA MARTINEZ
GOVERNOR

JOHN A. SANCHEZ
LIEUTENANT GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

Harold Runnels Building

1190 St. Francis Drive, P.O. Box 5469

Santa Fe, New Mexico 87502-5469

Telephone (505) 827-2855

www.nmenv.state.nm.us



DAVE MARTIN
SECRETARY

RAJ SOLOMON, P.E.
DEPUTY SECRETARY

February-29, 2011

Anne Wagner, Ph.D., Manager
Environmental and Health Services
Questa Mine, Chevron Mining Inc.
P.O. Box 469
Questa, NM 87556

RE: Discharge Permit Amendment Approval, DP-933, Increase in Maximum Volume of Contaminated Water Allowed for Dust Suppression at the Chevron Mining Inc. Tailing Facility

Dear Dr. Wagner:

The New Mexico Environment Department (NMED) is in receipt of a letter from Chevron Mining Inc. (CMI) dated July 28, 2010 requesting the amendment of Discharge Permit DP-933. In the letter CMI propose to amend DP-933 in order to increase the annual volume limit and discharge area of contaminated water usage for dust control at the Tailing Facility.

NMED believes that an excessive quantity of water is currently discharged to the active portions of the Tailing Facility and is resulting in degradation of water quality in the aquifer system. While NMED has been trying to encourage CMI to reduce the total quantity of water disposed of at the Tailing Facility, we also realize the importance of minimizing tailing derived wind blown dust. The approval to use an additional 9,000,000 gallons per year for dust suppression does not increase the total allowable discharge of water to the Tailing Facility, rather distributes this small fraction of the total annual discharge in a manner that minimizes dust and encourages rapid evaporation of the sprayed water. NMED concurs with CMI that the spraying of an additional 9,000,000 gallons per year in the manner proposed will not result in further degradation of ground water.

The Amendment of DP-933 is described as follows:

This Discharge Permit Amendment Approval authorizes CMI to increase the maximum allowable amount of contaminated water used for dust suppression from 1,000,000 gallons per year to 10,000,000 gallons per year. In addition, this Discharge Permit Amendment Approval authorizes CMI to expand the discharge locations from discharge to the road surfaces to the road surfaces and other areas within the Tailing Facility. Discharge of contaminated water for dust suppression is achieved by using a truck mounted sprayer. Spraying activities will be conducted in a manner that does not result in ponding of water on the surface.

Pursuant to the Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC) this request to amend DP-933 for the above dust suppression practices is hereby approved, subject to the following conditions.

EXHIBIT

tabbles

E32



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

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ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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RYAN FLYNN
Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

April 19, 2013

Dan Broderick, Manager
Tyrone Operations
Freeport- McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

RE: Discharge Permit Amendment, DP-1236, Little Rock Mine, Construction and Operation of Dewatering Facilities

Dear Mr. Broderick:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Tyrone, Inc. (Tyrone) titled, *Amendment Request for Discharge Permit DP-1236 for Dewatering Facilities for Little Rock Pit* (Letter) dated February 13, 2013. In the Letter, Tyrone requests to amend the December 27, 2000 Discharge Permit, DP-1236 for the construction and operation of pit dewatering facilities to remove ground water and storm water from the Little Rock Pit during mining. The facilities covered under DP-1236 are located approximately 10 miles south of Silver City in Sections 16, 17 and 20, T19S, R15W, Grant County, New Mexico.

Background

The Little Rock Mine is an open pit copper mine that underwent intermittent mining in the 1960s and 1970s. Open pit mining began again in July, 2011. Historic mining-related features include the open pit, waste rock stockpiles, the Ohio Mine dam, a reclaimed Leach Stockpile and reclaimed Precipitation Plant. Tyrone is currently mining in the eastern portion of the Little Rock Pit down through the 5900 foot elevation. Based on historic water levels encountered in monitoring wells located in the area, it is expected that ground water will be encountered at an elevation of approximately 5800 to 5850 feet above mean sea level (amsl), and it will be necessary to dewater the pit as mining continues.

EXHIBIT

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Amendment Description

As water is initially encountered as free liquid, it will be collected in a temporary dewatering sump excavated in the rock of the lowest current mining level. A permanent Pit Booster Sump with an approximate capacity of 850,000 gallons will be excavated in the southeastern portion of the pit at an approximate elevation of 5800 feet. A series of temporary dewatering sumps will be excavated as the pit is lowered. Water collected in the temporary sumps will be pumped via a diesel powered pump to the Pit Booster Sump. Water will be pumped from the Pit Booster Sump via a diesel pump through a High Density Polyethylene (HDPE) pipeline to a new Phase 1 Booster Station located at the northwestern margin of the pit at an approximate elevation of 6000 feet. The Phase 1 Booster Station will consist of two unlined sumps arranged in series that will also serve as settling basins for sediments. The first sump will have a capacity of approximately 480,000 gallons, and the second sump will have a capacity of approximately 290,000 gallons. The Phase 1 Booster Station will also receive seepage from the collection trenches installed at the base of the reclaimed leach stockpile located southwest of the pit, and fluids that collect behind the Ohio Dam until the dam is mined out.

Water from the Phase 1 Booster Station will be pumped via a diesel powered pump to a series of three decant ponds located in the northern portion of the pit at an approximate elevation of 6150 feet. The three decant ponds will each have an approximate volume of 1,400,000 to 1,500,000 gallons. Water will flow by gravity from Pond 1 to Pond 2, and then to Pond 3, from where it will flow by gravity through an HDPE pipeline to the existing 1X1 lined pond. Water from the 1X1 lined pond will be pumped via an existing pipeline across the reclaimed 1A Tailing Dam to an existing booster pump station at the toe of the Tyrone 3A Leach Stockpile, from where it will be pumped to the SX/EW plant for use as process water. The Little Rock Mine Discharge Permit, DP-1236 is currently in the process of being renewed. The 1X1 lined pond, currently authorized under the DP-27 Settlement Agreement will be incorporated into DP-1236 upon renewal.

Permit Conditions

This Discharge Permit Amendment applies to the existing Little Rock Mine Discharge Permit, DP-1236, which is still in effect pursuant to 20.6.3106.F NMAC. The following conditions will be added to the current existing Discharge Permit, DP-1236, and continued upon renewal. Tyrone shall comply with these conditions, which are enforceable by NMED.

1. Tyrone is authorized to construct and operate the Pit Booster Sump at an approximate elevation of 5800 feet, along with associated pipelines. [20.6.2.3109 NMAC]
2. Tyrone is authorized to construct and operate the Phase 1 Booster Station at an approximate elevation of 6,000 feet, along with associated pipelines. [20.6.2.3109 NMAC]
3. Tyrone is authorized to construct and operate the three decant ponds at an approximate elevation of 6150 feet, along with associated pipelines. [20.6.2.3109 NMAC]

4. Tyrone is authorized to construct and operate temporary dewatering sumps within the Little Rock Pit on an as-needed basis along with associated pipelines. [20.6.2.3109 NMAC]
5. Tyrone shall sample and analyze the water from the Phase 1 Booster Station and the Pit Booster Sump on a monthly basis for one year and report the results to NMED via email within 45 days of each sampling event. Samples from both locations shall be analyzed for the same parameters and constituents as required for the seeps (CLDS and CLDS-1) at the base of the reclaimed stockpile. Hard copies of sampling results, pit water level elevation and the volume of water pumped from the pit shall be submitted as required in DP-1236. Following one year of monthly sampling Tyrone may submit to NMED for approval a proposal to amend the sampling requirements. [20.6.1.3107.A NMAC]
6. If comparison of the water quality from the Pit Booster Sump and the Phase 1 Booster Station shows impacts from the reclaimed Leach Stockpile seepage water Tyrone shall provide oral notification to NMED within 24 hours after discovery and submit a corrective action proposal to NMED within 15 days of the discovery. [20.6.1.3107.A NMAC]

Other Requirements

Tyrone shall comply with the terms and conditions contained herein and those in the Discharge Permit that remain unchanged which 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 Tyrone 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 the DP-1236 shall be the same as the term of DP-1236 issued on December 27, 2000. The timely submission of the renewal request on August 29, 2005 keeps the existing permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

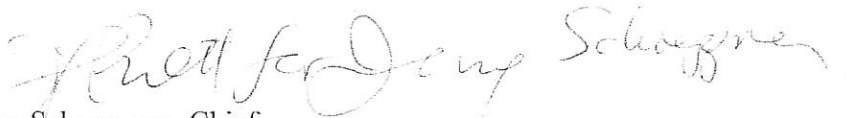
Approval of this Discharge Permit Amendment does not relieve Tyrone of its responsibility to comply with the Water Quality Act (WQA), the WQCC Regulations, and any other applicable federal, state, and/or local laws and regulations.

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

Dan Broderick, Tyrone
April 19, 2013
Page 4

Please contact Keith Ehlert of the Mining Environmental Compliance Section at 505-827-9687 with any questions.

Sincerely,



Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:cm/ke

xc: Clint Marshall, Program Manager, MECS-GWQB (electronic copy via email)
Kurt Vollbrecht, Operations Team Leader, MECS-GWQB (electronic copy via email)
George Llewellyn, MECS, Silver City Office (electronic copy via email)
Sally Smith, GRIP (electronic copy via email to sallys@gilanet.com)



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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RYAN FLYNN
Cabinet Secretary-Designate

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 8, 2013

Dan Broderick, Manager
Tyrone Operations
Freeport- McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

RE: Revised Discharge Permit Amendment, DP-1236, Little Rock Mine, Construction and Operation of Dewatering Facilities

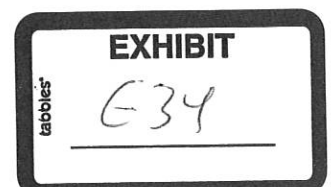
Dear Mr. Broderick:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Tyrone, Inc. (Tyrone) titled, *Amendment Request for Discharge Permit DP-1236 for Dewatering Facilities for Little Rock Pit* (Letter) dated February 13, 2013. In the Letter, Tyrone requests to amend the December 27, 2000 Discharge Permit, DP-1236 for the construction and operation of pit dewatering facilities to remove ground water and storm water from the Little Rock Pit during mining. The facilities covered under DP-1236 are located approximately 10 miles south of Silver City in Sections 16, 17 and 20, T19S, R15W, Grant County, New Mexico.

This Discharge Permit Amendment replaces the amendment issued on April 19, 2013 and includes an additional permit condition authorizing construction of a sediment collection sump in California Gulch (Condition 5).

Background

The Little Rock Mine is an open pit copper mine that underwent intermittent mining in the 1960s and 1970s. Open pit mining began again in July, 2011. Historic mining-related features include the open pit, waste rock stockpiles, the Ohio Mine dam, a reclaimed Leach Stockpile and reclaimed Precipitation Plant. Tyrone is currently mining in the eastern portion of the Little Rock Pit down through the 5900 foot elevation. Based on historic water levels encountered in



monitoring wells located in the area, it is expected that ground water will be encountered at an elevation of approximately 5800 to 5850 feet above mean sea level (amsl), and it will be necessary to dewater the pit as mining continues.

Amendment Description

As water is initially encountered as free liquid, it will be collected in a temporary dewatering sump excavated in the rock of the lowest current mining level. A permanent Pit Booster Sump with an approximate capacity of 850,000 gallons will be excavated in the southeastern portion of the pit at an approximate elevation of 5800 feet. A series of temporary dewatering sumps will be excavated as the pit is lowered. Water collected in the temporary sumps will be pumped via a diesel powered pump to the Pit Booster Sump. Water will be pumped from the Pit Booster Sump via a diesel pump through a High Density Polyethylene (HDPE) pipeline to a new Phase 1 Booster Station located at the northwestern margin of the pit at an approximate elevation of 6000 feet. The Phase 1 Booster Station will consist of two unlined sumps arranged in series that will also serve as settling basins for sediments. The first sump will have a capacity of approximately 480,000 gallons, and the second sump will have a capacity of approximately 290,000 gallons. The Phase 1 Booster Station will also receive seepage from the collection trenches installed at the base of the reclaimed leach stockpile located southwest of the pit.

Water from the Phase 1 Booster Station will be pumped via a diesel powered pump to a series of three decant ponds located in the northern portion of the pit at an approximate elevation of 6150 feet. The three decant ponds will each have an approximate volume of 1,400,000 to 1,500,000 gallons. Water will flow by gravity from Pond 1 to Pond 2, and then to Pond 3, from where it will flow by gravity through an HDPE pipeline to the existing 1X1 lined pond. Water from the 1X1 lined pond will be pumped via an existing pipeline across the reclaimed 1A Tailing Dam to an existing booster pump station at the toe of the Tyrone 3A Leach Stockpile, from where it will be pumped to the SX/EW plant for use as process water. The Little Rock Mine Discharge Permit, DP-1236 is currently in the process of being renewed. The 1X1 lined pond, currently authorized under the DP-27 Settlement Agreement will be incorporated into DP-1236 upon renewal.

Permit Conditions

This Discharge Permit Amendment applies to the existing Little Rock Mine Discharge Permit, DP-1236, which is still in effect pursuant to 20.6.3106.F NMAC. The following conditions will be added to the current existing Discharge Permit, DP-1236, and continued upon renewal. Tyrone shall comply with these conditions, which are enforceable by NMED.

1. Tyrone is authorized to construct and operate the Pit Booster Sump at an approximate elevation of 5800 feet, along with associated pipelines. [20.6.2.3109 NMAC]
2. Tyrone is authorized to construct and operate the Phase 1 Booster Station at an approximate elevation of 6,000 feet, along with associated pipelines. [20.6.2.3109 NMAC]
3. Tyrone is authorized to construct and operate the three decant ponds at an approximate elevation of 6150 feet, along with associated pipelines. [20.6.2.3109 NMAC]

4. Tyrone is authorized to construct and operate temporary dewatering sumps within the Little Rock Pit on an as-needed basis along with associated pipelines. [20.6.2.3109 NMAC]
5. Tyrone is authorized to construct and operate the 15,000 gallon sediment sump in California Gulch for use in removing sediment from the pipeline on an as-needed basis. [20.6.2.3109 NMAC]
6. Tyrone shall sample and analyze the water from the Phase 1 Booster Station and the Pit Booster Sump on a monthly basis for one year and report the results to NMED via email within 45 days of each sampling event. Samples from both locations shall be analyzed for the same parameters and constituents as required for the seeps (CLDS and CLDS-1) at the base of the reclaimed stockpile. Hard copies of sampling results, pit water level elevation and the volume of water pumped from the pit shall be submitted as required in DP-1236. Following one year of monthly sampling Tyrone may submit to NMED for approval a proposal to amend the sampling requirements. [20.6.1.3107.A NMAC]
7. If comparison of the water quality from the Pit Booster Sump and the Phase 1 Booster Station shows impacts from the reclaimed Leach Stockpile seepage water Tyrone shall provide oral notification to NMED within 24 hours after discovery and submit a corrective action proposal to NMED within 15 days of the discovery. [20.6.1.3107.A NMAC]

Other Requirements

Tyrone shall comply with the terms and conditions contained herein and those in the Discharge Permit that remain unchanged which 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 Tyrone 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 the DP-1236 shall be the same as the term of DP-1236 issued on December 27, 2000. The timely submission of the renewal request on August 29, 2005 keeps the existing permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

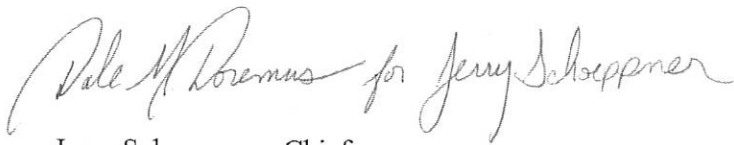
Approval of this Discharge Permit Amendment does not relieve Tyrone of its responsibility to comply with the Water Quality Act (WQA), the WQCC Regulations, and any other applicable federal, state, and/or local laws and regulations.

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

Dan Broderick, Tyrone
May 8, 2013
Page 4

Please contact Keith Ehlert of the Mining Environmental Compliance Section at 505-827-9687 with any questions.

Sincerely,

A handwritten signature in cursive script that reads "Dale M. Brennus for Jerry Schoeppner".

Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:cm/ke

xc: Clint Marshall, Program Manager, MECS-GWQB (electronic copy via email)
Kurt Vollbrecht, Operational Team Leader, MECS-GWQB (electronic copy via email)
George Llewellyn, MECS, Silver City Office (electronic copy via email)
Sally Smith, GRIP (electronic copy via email to sallys@gilanet.com)



SUSANA MARTINEZ
Governor

JOHN SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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DAVID MARTIN
Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

December 2, 2011

Thomas Shelley, Reclamation Manager
Chino Mines Company
P. O. Box 10
Bayard, NM 88023

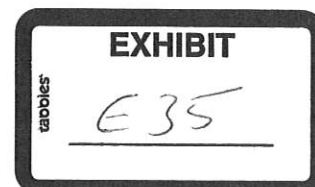
RE: DP-1340 Amendment Approval, South Stockpile Closure Closeout Plan, Freeport-McMoRan Chino Mines Company

Dear Mr. Shelley:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Chino Mines Company (Chino) titled, *Amendment to South Stockpile Closure Closeout Plan, DP-1340 and GR009RE* (Amendment Request) dated November 28, 2011. In the Amendment Request, Chino requests to amend the February 23, 2003 Supplemental Discharge Permit for Closure (DP-1340) for the construction of the STS2 Stockpile to facilitate closure of the South Stockpile. The South Stockpile is located at the North Mine Area of the Chino Mines Facility, near the town of Bayard in T17S, R12W, Sections 25, 26, 27, 28, 29, 32, 33, 34, 35 and 36; T18S, R12W, Sections 3 and 4 in Grant County.

Background

The closure/closeout plan design approved for the South Stockpile is shown schematically in Drawing 31, Appendix A of the February 2005 *Chino Closure/Closeout Update, Chino Mines Company, New Mexico* (Update). Chino has constructed the area known as the STS2 Stockpile up to the design limits as approved. The proposed amendment will incorporate additional waste rock material to the STS2 Stockpile to create 3:1 slopes as opposed to leaving a larger flat top surface in place. The design as proposed eliminates steeper 2.5:1 side slopes originally approved and reduces the amount of top surface area on the South Stockpile at closure without expanding the overall final surface area footprint. The proposed amendment better prepares this area for final closure.



Amendment Description

Chino will construct the STS2 Stockpile in accordance with the design drawings submitted in the Amendment Request. DP-1340 shall be amended to replace Drawing 31 of the Update with the drawings submitted in the Amendment Request. Any necessary changes to the financial assurance amount will be addressed during the upcoming renewal of DP-1340.

Other Requirements

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged 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 the DP-1340 shall be the same as the remaining term of the DP-1340, which is currently undergoing renewal pursuant to a timely renewal request.

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 Kurt Vollbrecht of the Mining Environmental Compliance Section at (505) 827-0195 with any questions.

Sincerely,



Jerry Schoeppner, Acting Chief
Ground Water Quality Bureau

JS:kmv

xc: Mary Ann Menetrey, Program Manager, MECS-GWQB
Chris Eustice, NM Mining and Minerals Division
Sally Smith, GRIP



BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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www.nmenv.state.nm.us
William C. Olson, Bureau Chief



RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

October 2, 2008

Richard N. Mohr, Manager
New Mexico Operations
Freeport – McMoran Copper and Gold
P.O. Box 571
Tyrone, NM 88065

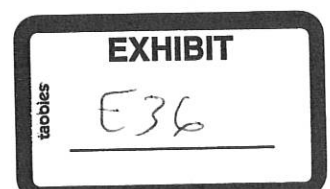
**RE: Discharge Permit 1341 Amendment Approval, Rescindment of Condition 50,
Temperature and Oxygen Monitoring, Freeport-McMoran Tyrone Mine**

Dear Mr. Mohr:

The Ground Water Quality Bureau of the New Mexico Environment Department has received your letter titled, *Amendment Request to Rescind the Requirement for Collecting and Reporting Stockpile Temperature and Oxygen Data as Described in DP-1341, Condition 50.* (Letter) dated September 22, 2007. In the Letter, Freeport-McMoran Tyrone, Inc. (Tyrone) requests amendment of the Discharge Permit 1341 (DP-1341) Supplemental Discharge Permit for Closure to rescind Condition 50, which requires monitoring of internal temperature and redox and/or oxygen profiles in all inactive Leach Ore and Waste Rock Stockpiles at the Tyrone Mine.

The Amendment of DP-383 is described as follows:

Condition 50 of the Supplemental Discharge Permit for Closure, DP-1341 requires Tyrone to monitor internal temperature, redox and/or oxygen profiles within all Leach Ore Stockpiles and Waste Rock Piles following cessation of operation. Tyrone has been conducting such monitoring in eight wells on the No. 1, No. 1C, No. 2, No. 2A, and No. 3B stockpiles since December 2004. Tyrone reports that useful information has been collected in these wells, particularly in the first year of monitoring. However, reclamation activities and technical problems have compromise the monitoring system. Therefore, Tyrone concludes that further



monitoring will not be productive and requests that the requirements of Condition 50 be rescinded by NMED.

Pursuant to the Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC) this request to amend DP- 1341 for the above referenced facility is hereby approved, subject to the condition listed below. DP-1341 was issued on April 8, 2003. The Tyrone Mine is located approximately 12 miles south of Silver City in Grant County. In approving this Discharge Permit Amendment, NMED has determined that the requirements of 20.6.2.3109 NMAC have been met.

PERMIT CONDITION

Condition 50 of the current Discharge Permit, DP-1341, reads as follows.

50. Temperature, Oxidation-Reduction Potential (Redox) and/or Oxygen Monitoring. Following Cessation of Operation, Tyrone shall monitor temperature, redox and/or oxygen profiles within the all Leach Ore Stockpiles and Waste Rock Piles. The locations, frequencies and parameters for the monitoring shall be based on the study described in Condition 80. Results shall be reported as required below in Condition 58.

This condition is hereby rescinded. Tyrone is no longer required to follow the requirements of this condition from this date forward until DP-1341 is renewed. The data required by this Condition 50 and reported to NMED in the Letter, as well as any related data from this requirement shall be made available to NMED upon request. This Discharge Amendment does not prohibit NMED from requiring this information again in future discharge permit renewals or modifications.

OTHER REQUIREMENTS

The terms and conditions contained herein and those in the Discharge Permit that remain unchanged shall be complied with by Tyrone 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 Tyrone 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 the DP-1341 shall be the same as the remaining term of the Discharge Permit DP-1341, which expired on April 3, 2008. The timely submission of the renewal request keeps the permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

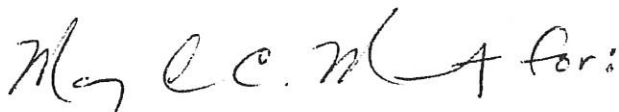
Richard N. Mohr, FMTI
October 22, 2008
Page 3

Approval of this Discharge Permit Amendment does not relieve Tyrone 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 Tyrone intends to change the disposition of any discharge relating to this amendment, Tyrone is required to notify NMED prior to changing the discharge.

Please contact Clint Marshall of the Mining Environmental Compliance Section at 505-827-0027 with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Olson" followed by a stylized flourish.

William Olson, Chief
Ground Water Quality Bureau

WO/CLM

xc: Mary Ann Menetrey, Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
David Ohoi, MMD



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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BUTCH TONGATE
Cabinet Secretary

J.C. BORREGO
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

July 14, 2017

Sarah Gonzales (sarah.gonzales@mosaicco.com)
The Mosaic Company
1361 Potash Mines Road
Carlsbad, NM 88220

**RE: Discharge Permit Amendment, DP-1399, Crusher Operations, Mosaic Potash
Carlsbad Mine, Mosaic Potash Carlsbad, Inc.**

Dear Ms. Gonzales:

The New Mexico Environment Department (NMED) received a letter via email on June 6, 2017 (amendment request) from Mosaic Potash Carlsbad Inc. (Mosaic) requesting to amend Discharge Permit 1399 (DP-1399) to process ore and waste materials mined from a new section of underground workings called the Nash Draw Development in the potassium-magnesium (K-Mag) Potash Plant or the newly constructed Keiserite Crushing Plant and to discharge resultant wastes as slurries from the K-Mag Potash Plant and Keiserite Crushing Plant to the Salt Stack and Tailing Management Area. The new Keiserite Crushing Plant also will process material from rehabbing the Lang Main Line that will be used to access the Nash Draw Development ore body. The material that is crushed will be mixed with a K-Mag brine to form a slurry that will be pumped to the Salt Stacks for disposal.

The facilities covered under DP-1399 including the Mosaic Potash Plant and associated facilities covered under DP-1399 are located approximately 15 to 17 miles east and southeast of Carlsbad, NM in Eddy County. The Mosaic Potash Plant is located in Sections 1 and 12, T22S, R29E; the Salt Stack is located in Section 1, 12 and 13, T22S, R29E and Sections 6, 7 and 18 T22S, R30E; the Clay Settling Ponds and Laguna Uno Brine Management Area are located in Sections 13, 24, and 25, T22S, R29E and Sections 19 and 30 T22S, R30E; the Brine Pipeline is located in Sections 23, 24, 26 and 35, T22S, R29E and Sections 2, 3 and 10, T23S, R29E; the Laguna Grande Brine Management Area is located in Sections 3, 4, 5, 7, 8, 9, 10, 15, 16, 17, 18, 19 20, 21, 22 and 28 T23S, R29E and Sections 13 and 24, T23S, R28E.

EXHIBIT

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NMED issues this Discharge Permit Amendment 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. This Discharge Permit Amendment does not result in significant changes in the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit, DP-1399, issued to Mosaic on September 30, 2011. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met.

Amendment Description

This amendment authorizes Mosaic to discharge the slurry from the crusher plant as follows:

Material that is mined from the Nash Draw Development ore body or cuttings that are taken from rehabbing the Lang Main Line that contain Keiserite (less than 4% Langbenite and greater than 2% Keiserite) will be processed at the Keiserite Crushing Plant. The crushed material will be slurried with a K-Mag brine that is the same brine that is used in the Potash Plant and pumped to the Salt Stack using a new slurry line. The slurry will be discharged on the Salt Stacks near the vicinity of the K-Mag tailings line discharge point.

The discharge of slurry from the Keiserite Crushing Plant shall be managed in accordance with the amendment request and this Discharge Permit Amendment

DP-1399 Amended Conditions

The following sections of the existing DP-1399 will be amended as shown in italics:

Facility Description

Paragraph 1: Mosaic Potash Carlsbad (Mosaic) includes the Potash Plant, *Keiserite Crushing Plant*, and the Tailings Management Area, which consists of the Salt Stack, the Clay Settling Dike, the Clay Settling Pond, the Salt Stack Dike No. 1, the Salt Stack Contingency Dike, the Laguna Uno Brine Management Area, the Brine Pipeline and the Laguna Grande Brine Management Area.

New Paragraph 2: *Mosaic recently constructed a Keiserite Crushing Plant where the former Muriate crushing tower was located. The Keiserite Crushing Plant was built to process low-grade ore and material removed from rehabbing the Lang Main Line that cannot be processed in the Potash Plant because it has a Langbenite concentration less than 4% and a Keiserite concentration greater than 2%. The crushed material will be slurried with the K-Mag brine that is used in the Potash Plant and then pumped to the Salt Stack for disposal. The slurry line discharges at the top of the Salt Stack near the vicinity of the K-Mag tailings line.*

Section III, Condition 2.A

2.A. Salt Stacks/Salt Dikes: Tailings slurry *from the Potash Plant and slurry from the Keiserite Crushing Plant* generated at the mine is discharged to the Salt Stack area to settle salt solids and minor amounts of clay. Additional authorized discharges to the Salt Stack include plant wash water, miscellaneous amounts of dilute process solutions and domestic wastewater from septic tanks. Internal salt dikes (SD1-SD6) shall be constructed as needed on the south end of the Salt Stack to decant brine, settle out additional salt and clay solids, and to control the future expansion of the Salt Stack.

Other Requirements

Mosaic shall comply with the terms and conditions contained herein and those in DP-1399 that remain unchanged which are enforceable by NMED pursuant to Section 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 Mosaic 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 the DP-1399 shall be the same as the term of DP-1399. Issuance of this Discharge Permit Amendment does not relieve Mosaic of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

If at any time in the future Mosaic intends to change the disposition of any discharge relating to DP-1399, Mosaic is required to notify NMED prior to changing the discharge.

Please contact Anne Maurer of the Mining Environmental Compliance Section at 505-827-2906 with any questions.

Sincerely,



Bruce Yurdin, Division Director
Water Protection Division

BY:AM

ec: Kurt Vollbrecht, Program Manager, GWQB-MECS (kurt.vollbrecht@state.nm.us)
Anne Maurer, Permit Lead, GWQB-MECS (anne.maurer@state.nm.us)

Ms. Sarah Gonzales, DP-1399
July 14, 2017
Page 4 of 4

Robert Salaz, BLM (rsalaz@blm.gov)

Indra Dahal, BLM (idahalabowen@blm.gov)



NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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Governor
JOHN SANCHEZ
Lieutenant Governor

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DAVID MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 22, 2012

William Katz, Chief Engineer
Environment, Land and Water
Chino Mines Company
Box 10.
Bayard, NM 88023

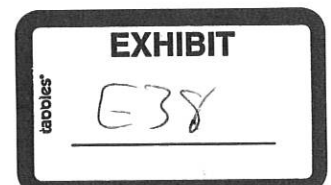
RE: Discharge Permit Amendment, Water Sources for Dust Suppression on Haul Roads at the Chino Mine, DP-1568, DP-459, DP-526, and DP-376, Freeport-McMoRan Chino Mines Company

Dear Mr. Katz:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport – McMoRan Chino Mines Company (Chino) titled, *Water Sources for Dust Suppression – Chino Mine Pit Discharge Plan 459 (DP-459)* (Letter) dated May 18, 2012. In the Letter and subsequent email correspondence Chino requests permission to use water from four water spouts at the Chino North Mine area for dust suppression on mine haul roads within the boundaries of the Santa Rita Open Pit and adjacent stockpiles. The haul roads fall within areas covered under four operational discharge permits for the Chino Mine facility, including DP-1568 (Lee Hill Stockpile), DP-376 (Lampbright Leach System), DP-459 (North In-Pit Leach System and Santa Rita Open Pit), and DP-526 (Whitewater Leach System). The facilities covered under DP-1568 are located approximately 3 miles northeast of Bayard in Section 27, 28, 33, and 34 T17S, R12W; DP-376 facilities are located approximately 5 miles northeast of Bayard in Sections 25, 26, 35 and 36, T17S, R12W; DP-459 facilities are located approximately 3 miles northeast of Bayard in Sections 23, 26, 27, 28, 33, 34 and 35, T17S, R12W; and affected portions of DP-526 are located 2 miles northeast of Bayard in Sections 28, 32, 33 and 34, T17S, R12W; Sections 3, 4, and 5, in Grant County.

Background

The four water spouts that Chino proposes to use for dust suppression include the Frog Pond Spout, South Side Spout, Lampbright Spout, and the Island Spout. Water is supplied to these



four spouts from a variety of sources including the LB East and LB Cut wells north of the Lampbright Leach Stockpile, 700R and 593 potable supply wells near the SX/EW Plant, Chino Tailing Pond 7 decant water, water from the Bullfrog Shaft and the Continental Mine delivered via the Bullfrog Pipeline, and Santa Rita Pit dewatering wells. Water quality data for these various wells has been established, or is currently being reported pursuant to applicable Chino and Continental Mine operational discharge permits. Water quality from these sources typically exceeds WQCC standards for TDS, sulfate, iron, manganese and occasionally for fluoride. The haul roads that water is applied to for dust control typically have acid generating potential, and are within either the open pit capture zone or within the footprint of permitted leach stockpiles or acid generating stockpiles where ground and surface water capture is demonstrated. One exception is the Upper South Stockpile which is a cover material stockpile. Dust control on this stockpile is limited to use of water from potable sources only. Dust suppression is a necessary action to meet air quality requirements, and is not expected to result in a net impact to ground or surface water quality within these heavily impacted active mine areas.

Chino has requested to apply a maximum of 1.5 million gallons per day of water for dust suppression from the four water spouts previously mentioned. Since one water truck may deliver dust suppression water to a haul road that crosses over multiple permit boundaries it is not feasible to track directly how much water is applied for dust suppression within each discharge permit area affected. Therefore Chino will meter the daily volume of water applied from each of the four water spouts and report weekly volumes to NMED in the semi-annual reports pursuant to DP-459.

Permit Conditions

The amendments to DP-1568, DP-376, DP-459 and DP-526 are described as follows.

The following Condition shall be included in DP-1568, DP-376, DP-459 and DP-526.

1. Dust Suppression: Chino is authorized to use water from the Frog Pond Spout, South Side Spout, Lampbright Spout, and the Island Spout for dust suppression within the Santa Rita Open Pit and surrounding Leach and Waste Rock Stockpiles. Water is supplied to the spouts from a variety of sources including the LB East and LB Cut wells north of the Lampbright Leach Stockpile, 700R and 593 potable supply wells near the SX/EW Plant, Chino Tailing Pond 7 decant water, water from the Bullfrog Shaft and the Continental Mine delivered via the Bullfrog Pipeline, and Santa Rita Pit dewatering wells. If at some time in the future Chino wishes to use an alternate source of dust suppression water, Chino shall notify NMED prior to the proposed change.

The following Condition shall be included in DP-526.

1. Dust suppression on haul roads on the Upper South Stockpile will be conducted using water sources that meet New Mexico Water Quality Control Commission standards at 20.6.2.3103 NMAC.

Condition 13.D from the June 10, 2011 Discharge Permit Renewal, DP-459 shall be amended as follows:

D. Representative Santa Rita Pit dewatering wells used for dust suppression, production wells 700R and 593, and the Bullfrog Shaft shall be sampled as follows:

- 1) Chino shall collect samples from each well and shaft annually and analyze for the water parameters listed in Conditions 18B and 18C.

Analytical results and depth to ground water measurements and water level elevations shall be reported as required in Condition 20.

Condition 16 from the June 10, 2011 Discharge Permit Renewal, DP-459 shall be amended by adding Section E as follows:

16. *Discharge Volumes* – Chino 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 Condition 20. [20.6.2.3107.A NMAC]

- E. The weekly volume of water used for dust suppression from each of four water spouts including the Frog Pond Spout, South Side Spout, Lampbright Spout, and Island Spout.

Other Requirements

The terms and conditions contained herein and those in the Discharge Permits that remain unchanged 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 shall be the same as the remaining term of DP-1568 (expires September 17, 2012, timely renewal submitted) DP-376 (expires June 17, 2015) DP-459 (expires June 10, 2016) and DP-526 (expired October 3, 2011, timely renewal submitted). Chino must submit an application for renewal at least 120 days before the permit expiration date(s). The timely submission of the renewal request keeps the permit(s) and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

William Katz, Chino
June 22, 2012
Page 4 of 4

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 Kurt Vollbrecht of the Mining Environmental Compliance Section at (505) 827-0195 with any questions.

Sincerely,



FOR Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS: kmv/lrs

xc: Administrative record, DP-1568, DP-376, DP-459, DP-526
Kurt Vollbrecht, Program Manager (Acting), MECS-GWQB
Bruce Taylor, Manager, Cobre Mining Company, Freeport-McMoRan Copper and Gold,
Box 7, Hurley, NM 88043
Chris Eustice, NM Mining and Minerals Division
Sally Smith, GRIP



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Governor

JOHN SANCHEZ
Lieutenant Governor

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Ground Water Quality Bureau

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www.nmenv.state.nm.us



DAVID MARTIN
Secretary

RAJ SOLOMON, P.E.
Acting Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

January 14, 2011

W. Pierce Carson, PhD, President
Lordsburg Mining Company
Banner Mill Site
1128 Pennsylvania NE, Suite 200
Albuquerque, NM 87110-7437

RE: Discharge Permit Amendment, DP-1651; Addition to List of Chemical Reagents for use in the Floatation Concentrator Circuit

Dear Dr. Carson:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) received a request from Lordsburg Mining Company – Banner Mill Site dated January 12, 2011 to amend the November 16, 2009 Discharge Permit (DP-1651) to allow additional chemical frothing reagents to be used in the floatation concentrator circuit at the Banner Mill Site. The facilities permitted under DP-1651 are located approximately 4 ½ miles southwest of Lordsburg in Sections 14 and 23, T23S, R19W in Hidalgo County, New Mexico.

The permitted discharges described in DP-1651 include a tailing slurry derived from the crushing, milling and floatation of the gold-bearing quartz ore. The crushed rock slurry generated within the ball mill provides input flow to the floatation concentrator. Chemical reagents previously approved for use in the floatation concentrator circuit include soda ash (Na_2CO_3), potassium amyl xanthate ($\text{C}_5\text{H}_{11}\text{OCS}_2\text{K}$), 1-Hexanol ($\text{C}_6\text{H}_{14}\text{O}$) and sodium dialkyl dithiophosphate ($\text{C}_8\text{H}_{18}\text{O}_2\text{PS}_2\text{Na}$). Tailing slurry output from the floatation concentrator is discharged to the Tailing Impoundment where tailings are settled and waste water is recovered and recycled to the milling operation in a closed loop circuit. The discharge rate of tailing slurry to the Tailings Impoundment is not permitted to exceed 200,000 gallons per day (gpd).

The Discharge Permit amendment request includes inclusion of the specific reagent Flomin C

EXHIBIT

tabbles

E39

2761 Collector (Ammonium diaryl dithiophosphate), and allowance for families of reagents including Xanthates and Dithiophosphates with a requirement to submit Material Safety Data Sheets (MSDS) prior to use of additional specific reagents within these classes.

Pursuant to the Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC), amendment of DP-1651 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 Condition

The approved amendment to DP-1651 is described under Condition 4b, which shall read as follows:

4. b Chemical Reagents: LMC is authorized to introduce the following promoters and/or collector chemical reagents into the floatation concentrator circuit: soda ash (Na_2CO_3), potassium amyl xanthate ($\text{C}_5\text{H}_{11}\text{OCS}_2\text{K}$), 1-Hexanol ($\text{C}_6\text{H}_{14}\text{O}$), Flomin C 2761 Collector (Ammonium diaryl dithiophosphate) and sodium dialkyl dithiophosphate ($\text{C}_8\text{H}_{18}\text{O}_2\text{PS}_2\text{Na}$).

LMC is authorized to introduce into the floatation concentrator circuit additional Xanthates or Dithiophosphates other than those listed above provided LMC submits MSDS sheets to NMED for the new reagent prior to use. No other chemical reagents shall be added to the floatation concentrator circuit without prior notification and approval from NMED.

Other Requirements

The terms and conditions contained herein and those in DP-1651 shall be complied with by LMC 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 LMC of liability should its operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations.

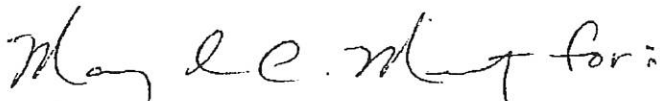
Period of Approval

Pursuant to 20.6.2.3109.H.4 NMAC, the term of this Discharge Permit Amendment for DP-1651 shall be the same as the remaining term of DP-1651, which will expire on November 16, 2014. LMC must submit an application for renewal at least 120 days before the permit expiration date. The timely submission of the renewal request keeps the permit and this amendment active until the renewal process is complete in accordance with 20.6.2.3106.F NMAC.

Approval of this Discharge Permit Amendment does not relieve LMC 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 LMC intends to change the disposition of any discharge relating to this amendment, LMC is required to notify NMED prior to changing the discharge.
Please contact Larry Shore of the Mining Environmental Compliance Section at (505) 827-2797 with any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "W.C. Olson for:", is written in dark ink.

William C. Olson, Chief
Ground Water Quality Bureau

WCO:lrs

cc: Mary Ann Menetrey, Program Manager, MECS
James Hollen, Permit Lead, MMD
Curtis Flood, Lordsburg Mining Company, P.O. Box 129, Lordsburg, NM 88045



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Governor

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Lieutenant Governor

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BUTCH TONGATE
Cabinet Secretary - Designate

J.C. BORREGO
Acting Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

November 18, 2016

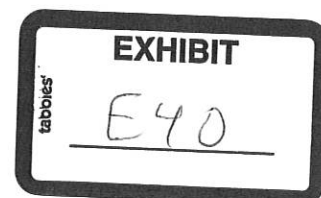
Kevin Ryan (kevin.ryan@IntrepidPotash.com)
Intrepid Potash, Inc.
707 17th Street, Ste. 4200
Denver, CO 80202

RE: Discharge Permit Amendment, DP-1681, Expanded Use of Brine, HB Potash Solar Solution Mine, Intrepid Potash – New Mexico, LLC

Dear Mr. Ryan:

The New Mexico Environment Department (NMED) received a letter dated November 7, 2016 (amendment request) from Intrepid Potash – New Mexico, LLC (Intrepid) requesting to amend Discharge Permit 1681 (DP-1681) to construct and operate a brine header for the sale of brine to oil and gas operations, and to discharge process brine from the HB Plant facility and injectate brine from the Tailings Brine Return (TBR) pond to the HB solar evaporation ponds.

The facilities covered under DP-1681 including several underground mines, the solar evaporation ponds, plant facilities and offices are located approximately 20 miles east of Carlsbad, in Eddy County, New Mexico. The production wells are located in Sections 1, 2 and 13, T21S, R29E and Section 18, T21S, R29E. The injection wells and associated Pilot, Testing and Instrumentation (PTI) wells are located in Sections 5, 8, 26, 33 and 36, T19S, R30E; Section 23, T20S, R29E; Section 19, T20S, R30E and Section 6, T20S, R31E. The extraction wells and associated PTI wells are located in Section 10, 14, and 36, T19S, R30E; Section 7, T20S, R31E; Sections 4 and 29, T20S, R30E; sections 15, 24, and 36, T20S, R30E; and Section 26, T20S, R29E. The HB Mill is located in Section 12, T21S, R29E. The solar evaporation ponds and associated monitoring wells are located in Section 2, T21S, R29E. The pipelines connecting the various components of the facility are located in Section 31, T19S, R31E; Sections 5, 8, 9, 10, 11, 13, 14, 15, 16, 21, 22, 26, 27, 28, 33, 34, 35 and 36, T19S, R30E; Sections 6 and 7, T20S, R31E; Sections 3, 4, 9, 15, 16, 19, 20, 21, 24, 25, 28, 29, 33, 34 and 36, T20S, R30E; Sections 1, 2, 3, 11 and 12, T21S, R29E; and Sections 23, 24, 25 and 26, T20S, R29E. The approximate surface expression of the underground mine workings to be flooded, a portion of which are



proposed to be flooded, lie within Sections 21, 22, 23, 26, 27, 28, 29, 32, 33, 34, 35 and 36, T19S, R30E; Sections 13, 14, 15, 22, 23, 24, 25, 26, 27, 34 and 35, T20S, R29E; Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 16, 17, 18, 19, 20, 21, 29 and 30, T20S, R30E; and Sections 6 and 7, T20S, R31E.

NMED issues this Discharge Permit Amendment 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. This Discharge Permit Amendment does not result in significant changes in the quantity or quality of effluent or the location of the discharge. This Discharge Permit Amendment changes specific terms and/or conditions contained in the Discharge Permit, DP-1681, issued to Intrepid on July 10, 2015. In issuing this Discharge Permit Amendment, NMED has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met.

Amendment Description

This amendment authorizes Intrepid to manage brine using additional methods as follows.

TBR brine will be conveyed from the TBR pond via an existing pipeline to an existing West Plant brine storage tank. A new pipeline will be constructed from the West Plant brine storage tank to a new brine loadout header (to be constructed). Oilfield service vendor trucks would load brine at the header location for sale to oil and gas operations.

Process brine will be routed to a brine tank at the HB Plant facility and pumped through a new pipeline (to be constructed) from the HB Plant to the south end of the solar evaporation ponds along the existing permitted slurry and brine pipeline corridor. The injectate brine from the TBR pond will be directly pumped to the solar evaporation ponds utilizing the existing TBR pipeline to the HB Plant facility and then through the existing or new process brine pipeline(s).

The discharge of process brine from the HB Plant facility and injectate brine from the TBR pond to the HB solar evaporation ponds, as well as the operation of the brine loadout header shall be managed in accordance with the amendment request.

DP-1681 Amended Conditions

The following sections of the existing DP-1681 will be amended as shown in italics:

Quantity, Quality and Flow Characteristics of the Discharge

Paragraph 2: IPNM extracts the PB from the underground workings through a system of seven extractions wells designated IP-020, IP-016, IP-028, IP-030, IP-302, and IP-304. The average annual combined pumping rate from the seven extraction wells is 1,100 gpm which is equivalent to the solar evaporation ponds average annual evaporation rate. Extracted PB, *process brine from the HB Plant facility, and injectate brine from the TBR pond* is piped and distributed into 18

solar evaporation and salt harvesting ponds. The maximum permitted discharge to the solar evaporation ponds is 4,608,000 gallons per day (3,200 gpm).

Section III, New Conditions 2H and 2I

2.H. Brine Sales Header: Injectate brine from the TBR pond for sale to oil and gas operations shall be discharged at a point of departure within the catchment of the HB and West plant facility area.

2.I. Process Brine and Injectate Brine from TBR Pond to HB Solar Evaporation Ponds: Process brine from the HB Plant facility and injectate brine from the TBR pond shall be discharged to the HB solar evaporation ponds to supplement the extracted PB brine, utilizing the existing TBR pipeline to the HB Plant facility and then through existing or new process brine pipelines.

Other Requirements

Intrepid shall comply with the terms and conditions contained herein and those in DP-1681 that remain unchanged which are enforceable by NMED pursuant to Section 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 Intrepid of liability should its operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations.

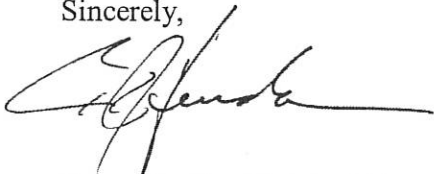
Period of Approval

Pursuant to 20.6.2.3109.H.4 NMAC, the term of this Discharge Permit Amendment for the DP-1681 shall be the same as the term of DP-1681. Issuance of this Discharge Permit Amendment does not relieve Intrepid of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

If at any time in the future Intrepid intends to change the disposition of any discharge relating to DP-1681, Intrepid is required to notify NMED prior to changing the discharge.

Please contact Anne Maurer of the Mining Environmental Compliance Section at 505-827-2906 with any questions.

Sincerely,



Bruce Yurdin, Division Director
Water Protection Division

Mr. Kevin Ryan, DP-1681
November 18, 2016
Page 4 of 4

BY:AM

ec: Kurt Vollbrecht, Program Manager, GWQB-MECS (kurt.vollbrecht@state.nm.us)
Anne Maurer, Permit Lead, GWQB-MECS (anne.maurer@state.nm.us)
Robert Salaz, BLM (rsalaz@blm.gov)
Andrea Bowen, BLM (abowen@blm.gov)



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RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

February 1, 2016

Erich Bower, General Manager
Freeport- McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

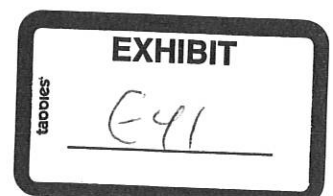
RE: Discharge Permit Amendment 05-04, DP-166, Increase the Maximum Sulfuric Acid Application Rate on the No. 2 Leach System

Dear Mr. Bower:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport-McMoRan Tyrone, Inc. (Tyrone) titled, *Discharge Permit 166 (DP-166) Amendment Request to Increase the Maximum Sulfuric Acid Application Rate on the No. 2 Leach System* dated December 1, 2015. In the letter, Tyrone requests to amend the May 27, 2005 Discharge Permit, DP-166 to increase the maximum amount of sulfuric acid that may be added to oxide material placed on the No. 2 Leach System from 50 pounds per ton of oxide material to 100 pounds per ton of oxide material. The facilities covered under DP-166 are located approximately 12 miles southwest of Silver City, in Sections 15, 21, 23, 27, and 28, T19S, R15W, Grant County, New Mexico.

Background

During a January 13, 2015 teleconference, Tyrone informed NMED that the amendment request was sent to NMED via certified mail on December 1, 2015. However, the NMED permit lead for DP-166, Keith Ehlert, never received the certified letter. A copy of the letter was emailed to Mr. Ehlert on January 13, 2016. After receiving the letter, NMED contacted Tyrone by telephone for clarification regarding some aspects of the requested amendment. Tyrone explained that the increase in sulfuric acid is necessary because the oxide ore from the Little Rock Mine has a high carbonate content which tends to neutralize the effect of the sulfuric acid, and it is anticipated the quality of the pregnant leach solution (PLS) will not change due to the neutralizing effect of the carbonates.



Permit Amendment

The May 27, 2005 Discharge Permit, DP-166 shall be amended as follows.

Tyrone is authorized to increase the maximum sulfuric acid application rate to the No. 2 Leach System from 50 pounds per ton of oxide material to 100 pounds per ton of oxide material.

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-166 that remain unchanged which 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 the permittee 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 shall be the same as the term of amended permits, including those that are administratively continued following timely submission of discharge permit renewal applications.

Approval of this Discharge Permit Amendment does not relieve the permittee of the 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 the permittee intends to change the disposition of any discharge relating to this amendment, the permittee is required to notify NMED prior to changing the discharge.

Please contact Keith Ehlert of the Mining Environmental Compliance Section at 505-827-9687 with any questions.

Sincerely,



Trais Kliphuis
Division Director
Water Protection Division

TK:kv/ke

xc: Kurt Vollbrecht, Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
David Ohori, MMD Tyrone Permit Lead
Allyson Siwik, GRIP

Summary of DP-166 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|--|-------------------------|
| Discharge Permit Renewal and Modification, DP-166, No. 2 Leach System, SX/EW Plant, Main Pit, Copper Mountain Pit, Valencia Pit and San Salvador Hill Pit | May 27, 2005 |
| Discharge Permit Amendment, DP-166, Changes to Pipeline Operation and Changes to Frequency of Monitoring Reports | January 24, 2007 |
| Discharge Permit Amendment, DP-166, Changes to Main Pit Dewatering System, Change in the 4A Booster Overflow System, and Authorization to Place Main Pit Sludge on the 7B Waste Stockpile | August 26, 2009 |
| Discharge Permit Amendment, DP-166, DP-363, DP-383, DP-396, DP-345, DP-896 and DP-1341, Change of Reporting Dates for Discharge Monitoring Reports and Potentiometric Maps, Freeport-McMoRan Tyrone Mine | July 28, 2011 |
| Discharge Permit Amendment, DP-166, Construction of Haul Ramp Between the 7B Waste Rock Stockpile and the 4B Leach Stockpile, Freeport-McMoRan Tyrone Mine | May 16, 2013 |



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Harold Runnels Building
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, New Mexico 87502-5469
Phone (505) 827-2900 Fax (505) 827-2965
www.env.nm.gov



RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

February 1, 2016

Erich Bower, General Manager
Freeport- McMoRan Tyrone, Inc.
P.O. Box 571
Tyrone, NM 88065

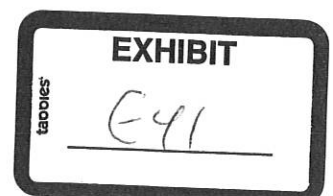
RE: Discharge Permit Amendment 05-04, DP-166, Increase the Maximum Sulfuric Acid Application Rate on the No. 2 Leach System

Dear Mr. Bower:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) has reviewed the letter from Freeport-McMoRan Tyrone, Inc. (Tyrone) titled, *Discharge Permit 166 (DP-166) Amendment Request to Increase the Maximum Sulfuric Acid Application Rate on the No. 2 Leach System* dated December 1, 2015. In the letter, Tyrone requests to amend the May 27, 2005 Discharge Permit, DP-166 to increase the maximum amount of sulfuric acid that may be added to oxide material placed on the No. 2 Leach System from 50 pounds per ton of oxide material to 100 pounds per ton of oxide material. The facilities covered under DP-166 are located approximately 12 miles southwest of Silver City, in Sections 15, 21, 23, 27, and 28, T19S, R15W, Grant County, New Mexico.

Background

During a January 13, 2015 teleconference, Tyrone informed NMED that the amendment request was sent to NMED via certified mail on December 1, 2015. However, the NMED permit lead for DP-166, Keith Ehlert, never received the certified letter. A copy of the letter was emailed to Mr. Ehlert on January 13, 2016. After receiving the letter, NMED contacted Tyrone by telephone for clarification regarding some aspects of the requested amendment. Tyrone explained that the increase in sulfuric acid is necessary because the oxide ore from the Little Rock Mine has a high carbonate content which tends to neutralize the effect of the sulfuric acid, and it is anticipated the quality of the pregnant leach solution (PLS) will not change due to the neutralizing effect of the carbonates.



Permit Amendment

The May 27, 2005 Discharge Permit, DP-166 shall be amended as follows.

Tyrone is authorized to increase the maximum sulfuric acid application rate to the No. 2 Leach System from 50 pounds per ton of oxide material to 100 pounds per ton of oxide material.

Other Requirements

The permittee shall comply with the terms and conditions contained herein and those in DP-166 that remain unchanged which 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 the permittee 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 shall be the same as the term of amended permits, including those that are administratively continued following timely submission of discharge permit renewal applications.

Approval of this Discharge Permit Amendment does not relieve the permittee of the 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 the permittee intends to change the disposition of any discharge relating to this amendment, the permittee is required to notify NMED prior to changing the discharge.

Please contact Keith Ehlert of the Mining Environmental Compliance Section at 505-827-9687 with any questions.

Sincerely,



Trais Kliphuis
Division Director
Water Protection Division

TK:kv/ke

xc: Kurt Vollbrecht, Program Manager, MECS-GWQB
George Llewellyn, MECS, Silver City Office
David Ohori, MMD Tyrone Permit Lead
Allyson Siwik, GRIP

Summary of DP-166 Permit and Amendment Chronology:

| Document Name | Effective/Issuance Date |
|--|-------------------------|
| Discharge Permit Renewal and Modification, DP-166, No. 2 Leach System, SX/EW Plant, Main Pit, Copper Mountain Pit, Valencia Pit and San Salvador Hill Pit | May 27, 2005 |
| Discharge Permit Amendment, DP-166, Changes to Pipeline Operation and Changes to Frequency of Monitoring Reports | January 24, 2007 |
| Discharge Permit Amendment, DP-166, Changes to Main Pit Dewatering System, Change in the 4A Booster Overflow System, and Authorization to Place Main Pit Sludge on the 7B Waste Stockpile | August 26, 2009 |
| Discharge Permit Amendment, DP-166, DP-363, DP-383, DP-396, DP-345, DP-896 and DP-1341, Change of Reporting Dates for Discharge Monitoring Reports and Potentiometric Maps, Freeport-McMoRan Tyrone Mine | July 28, 2011 |
| Discharge Permit Amendment, DP-166, Construction of Haul Ramp Between the 7B Waste Rock Stockpile and the 4B Leach Stockpile, Freeport-McMoRan Tyrone Mine | May 16, 2013 |



Freeport-McMoRan Chino Mines Company
P.O. Box 10
Bayard, NM 88023

November 3, 2016

Certified Mail #70160750000113392779
Return Receipt Requested

Mr. Brad Reid
New Mexico Environment Department
Ground Water Quality Bureau
PO Box 5469
Santa Fe, New Mexico 87502

Dear Mr. Reid:

**Re: Freeport-McMoRan Chino Mines Company –
Discharge Permit 213 (DP-213) Amendment, Ivanhoe Concentrator Domestic Waste**

Freeport-McMoRan Chino Mines Company (Chino) is requesting that New Mexico Environment Department (NMED) approve an amendment to DP-213 as it relates to the discharge of domestic waste (i.e. septage) from the Ivanhoe Concentrator. The discharge of domestic waste of up to 3,200 gpd is currently permitted through the tailings pipelines. In addition to this existing authorization, Chino hereby requests that domestic waste from the Ivanhoe Concentrator be permitted to be discharged into Reservoir 4A, a component of the historical PLS launder system for the South Stockpile, which is authorized to receive domestic waste under Discharge Permit 526 from other operational areas. This would provide options for discharging the domestic waste. The discharge of domestic waste from the Ivanhoe Concentrator will not exceed the current authorization of 3,200 gpd.

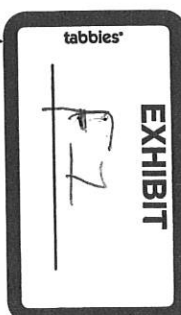
Enclosed is a check for \$500 for the amendment request. Chino would appreciate an expedited review of this amendment. If you require additional information, please contact Kariann Sokulsky at (575) 912-5386 or Devan Williams at (575) 912-5947.

Sincerely,

Sherry Burt-Kested, Environmental Manager
Environmental Services

SBK:ks
20161103-002
Enclosure
c: David Ennis, MMD

GROUND WATER
NOV 07 2016
BUREAU





Chino Mines Company, Hurley, New Mexico 88043 • (505) 537-3381

February 3, 2006

Certified Mail #7004116000099653869

Return Receipt Requested

FEB 09 2006

Mr. Kevin Myers
New Mexico Environment Department
Ground Water Quality Bureau
P. O. Box 26110
Santa Fe, New Mexico 87502

Dear Mr. Myers:

**Re: Discharge Plan 376 (DP-376) Amendment Request to
Incorporate the Northeast Lampbright Booster Station (NLBS)**

Chino Mines Company (Chino) requests that the New Mexico Environment Department (NMED) amend DP-376 to incorporate Northeast Lampbright Booster Station (NLBS). In conjunction with this request, Chino is providing additional operational information for NLBS as requested in the NMED's January 12, 2006 letter regarding "Conditional Approval of Corrective Action Plan for the Lampbright Leach System, DP-376."

The NLBS aids in the delivery of raffinate to the Main Lampbright Leach Stockpile. The NLBS also delivered a three month average of 11,838,240 gallons per day for the months of July, August, and September of 2005. Additional operational information such as construction specifications, materials and volumes are included in the attached engineering plans.

If you require additional information, please have your staff contact Mr. Christian Krueger at (505) 537-4205.

Very truly yours,

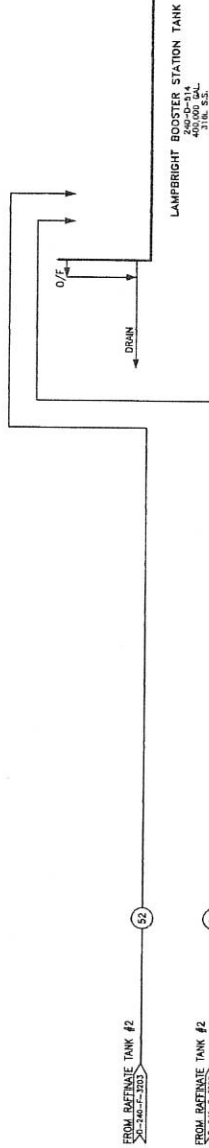
E. L. (Ned) Hall, Manager
Environment, Land & Water
New Mexico Operations

ELH:ck
Attachments
20060203-003

DIVISION OF PHELPS DODGE CORPORATION



LAMPBRIGHT BOOSTER STATION PUMPS
600 HP VERTICAL
240-C-311 / 312
316 S.S.
3 PHASE
1 VFD

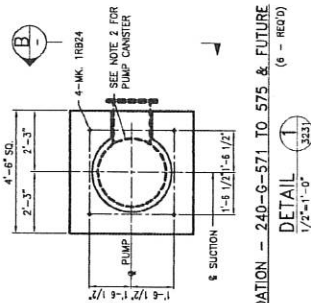
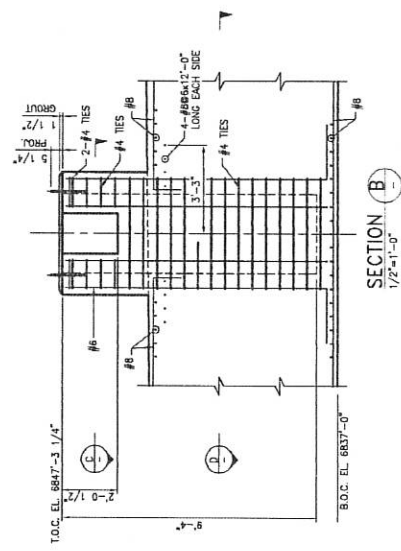
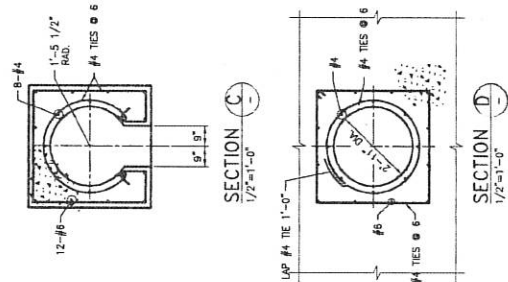
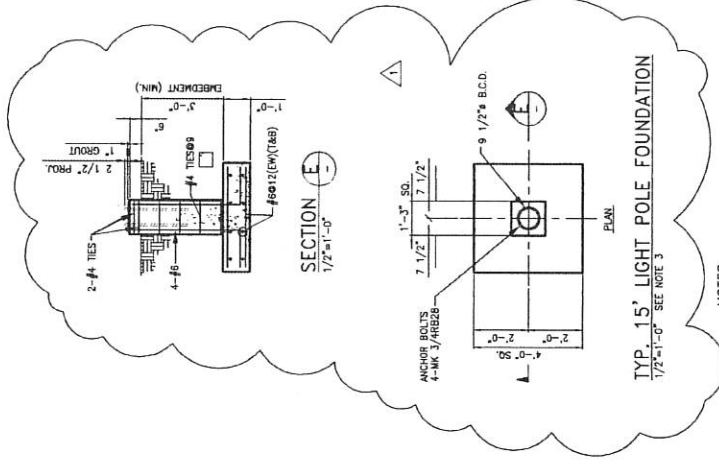
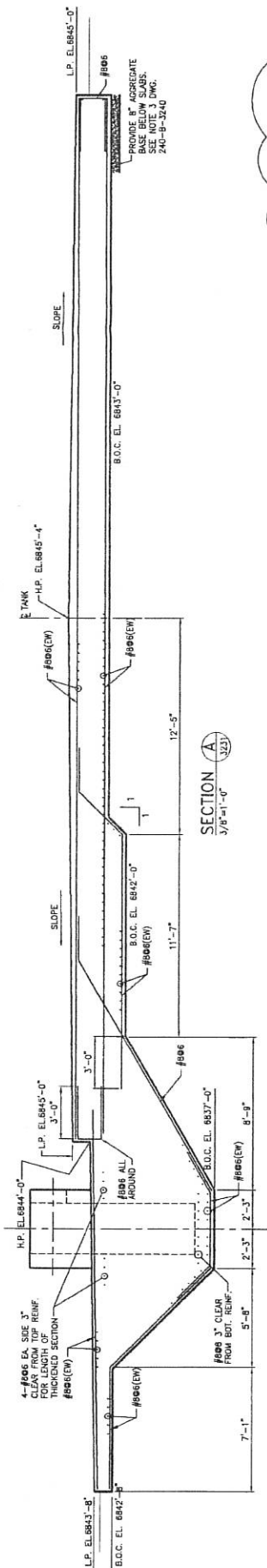


| STREAM NUMBER | 21 | 52 | 53 |
|---------------|------------|-----------|------------|
| DESCRIPTION | RAFFINATE | RAFFINATE | RAFFINATE |
| DESIGN FLOW | 11,700 GPM | 4,500 GPM | 11,700 GPM |

LEGEND:


- EXISTING
- PRIMARY FLOW
- SECONDARY FLOW

| | | | | | |
|-------------------------------------|--|--|--|--|--|
| | | SINTECH ENGINEERING INC. 10000 SINTECH DRIVE FREMONT, CALIF. 94538 | | SINTECH ENGINEERING INC. 10000 SINTECH DRIVE FREMONT, CALIF. 94538 | |
| PROJECT: LAMPBRIGHT BOOSTER STATION | | CLIENT: CHINO MINES COMPANY | | PROJECT: LAMPBRIGHT BOOSTER STATION | |
| SHEET: D-240-F-3204 | | TITLE: LAMPBRIGHT BOOSTER PUMP STATION | | SHEET: D-240-F-3204 | |
| DATE: 10/03/97 | | DRAWN BY: [blank] | | CHECKED BY: [blank] | |
| LAST UPDATE: 8/7/98 BY: [blank] | | PROJECT: LAMPBRIGHT BOOSTER STATION | | PROJECT: LAMPBRIGHT BOOSTER STATION | |

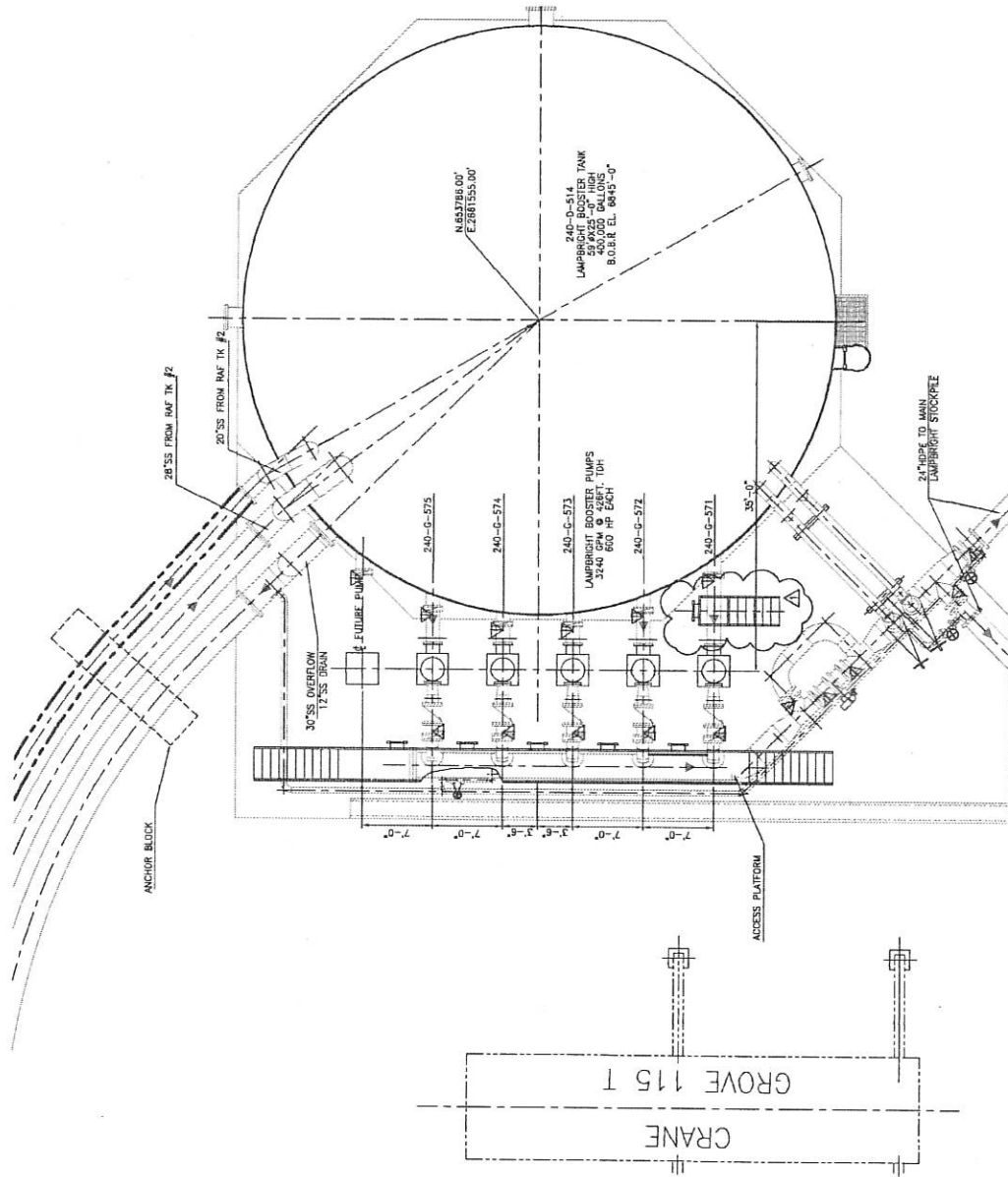


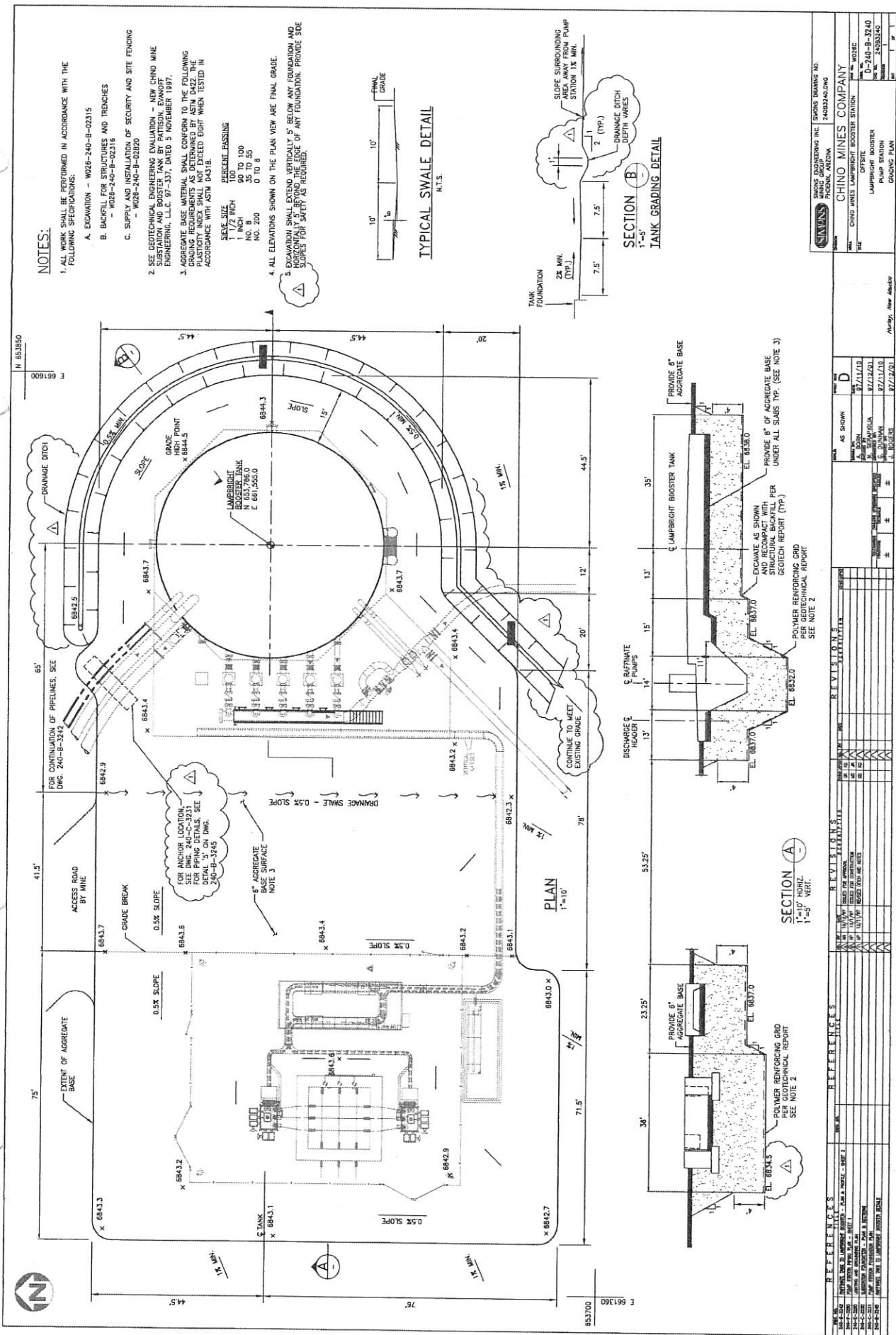
FOUNDATION - 240-G-571 TO 575 & FUTURE
DETAIL  (6 - REQ'D)

- NOTES**
1. FOR NOTES SEE DRAWING 240-C-3231.
 2. PUMP CANISTER TO BE INSERTED LATER.
 3. SEE DRAWING 240-E-3285 AND 3286 FOR LIGHT POLE LOCATIONS.

| | | | | | | |
|---|--|--|---------------------|----------------------------|--|---|
|  SINTONS ENGINEERING INC. PHOENIX, ARIZONA | SINGLE ENGINEERING NO. 24003322.0WG | SINGLE ENGINEERING NO. 24003322.0WG | CHINO MINES COMPANY | LAMPBRIGHT BOOSTER STATION | OFFSITE LAMPBRIGHT BOOSTER PUMP STATION FOUNDATION SECTIONS & DETAILS | SHEET NO. 202B/C |
| | | | | | | D-240-C-1312 DATE 24032322.0WG DRAWN BY 2 2 2 2 |

[illegible][illegible][illegible]

[illegible]



| | | |
|---|--|--|
| CHINO MINES COMPANY CHINO MINES LAMPBRIGHT BOOSTER STATION OFFSITE LAMPBRIGHT BOOSTER GRADING PLAN | | SHEET NO. 24953240 DATE 11/11/00 DRAWN BY 1 CHECKED BY 1 APPROVED BY 1 |
| CHINO MINES COMPANY 1000 N. 10TH AVENUE PHOENIX, ARIZONA 85015-4000 PHONE (602) 441-1000 FAX (602) 441-1001 WWW.CHINOMINES.COM | | SHEET NO. 24953240 DATE 11/11/00 DRAWN BY 1 CHECKED BY 1 APPROVED BY 1 |
| CHINO MINES COMPANY 1000 N. 10TH AVENUE PHOENIX, ARIZONA 85015-4000 PHONE (602) 441-1000 FAX (602) 441-1001 WWW.CHINOMINES.COM | | SHEET NO. 24953240 DATE 11/11/00 DRAWN BY 1 CHECKED BY 1 APPROVED BY 1 |

EQUIP. NO. 240-D-514

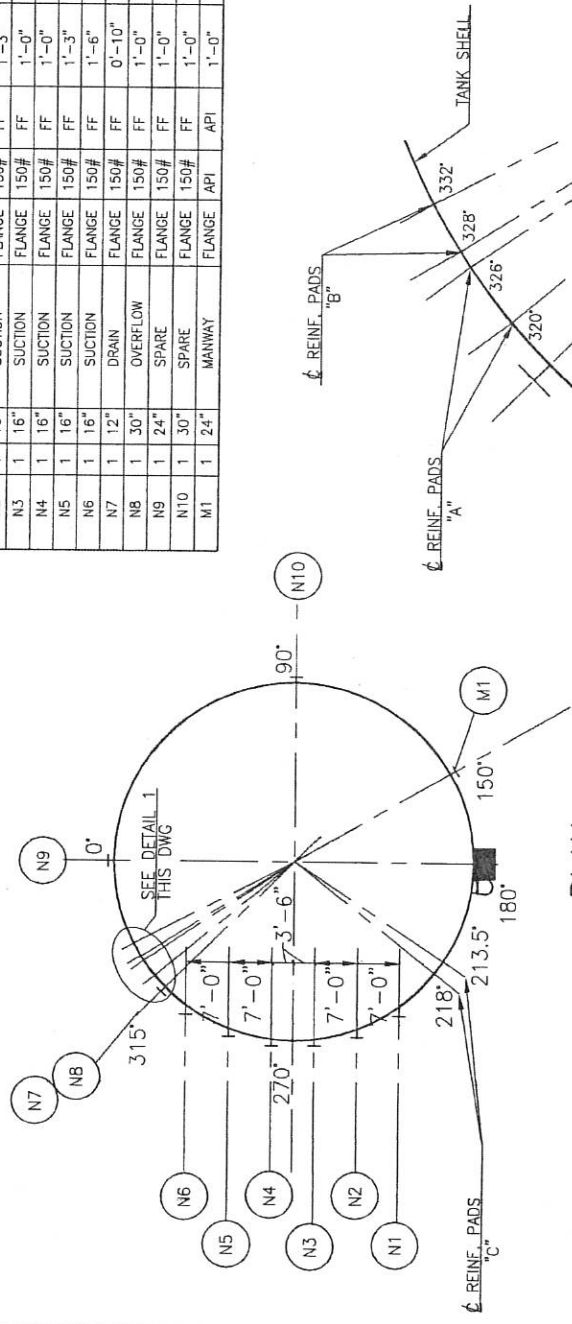
| | | |
|------------------------------|----------------|-----------------|
| CODE API-550 | CONTENTS | RAFFINATE / PLS |
| OPERATING CONDITIONS: | PRESSURE (max) | ATMOSPHERE |
| VOLUME OPERATING 400.000 USG | TEMP (max/min) | 102/-6 F |
| S.G. of PRODUCT 1.11 | TEST PRESS. | PER API CODE |
| ESTIMATED WEIGHT: | TEST FLUID | WATER |
| EMPTY 88,700 LB | INSULATION | NONE |
| OPERATING 4,154,600 LB | | |
| LOCATION OUTDOORS | | |
| MATERIALS: | | |
| SHELL & ROOF 316L S.S. | REINFORCEMENTS | 316L S.S. |
| INTERIORS 316L S.S. | SUPPORTS | 316L S.S. |
| THICKNESS(MIN): | | |
| SHELL 1/4" | ROOF | N/A |
| CORROSION ALLOWANCE | NONE | 1/4" |
| AGITATOR: | | |
| STATIC WT | N/A | MAX B.M. N/A |
| MAX TORQUE | N/A | POWER N/A |

NOTES:

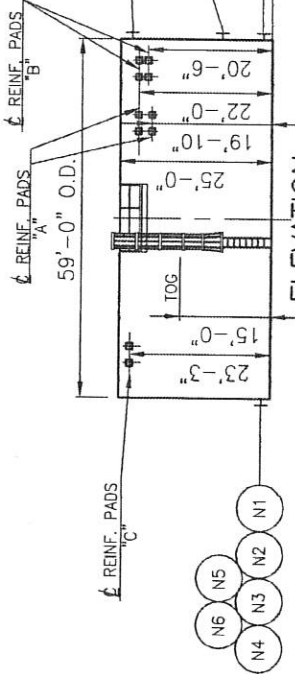
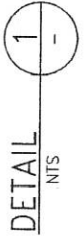
- DESIGN, FABRICATION, INSPECTION & TESTING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THIS DWG. AND SPECIFICATION NO. W026C-240-M-009
- UNLESS OTHERWISE AGREED, FABRICATION SHALL NOT BEGIN UNTIL WELD PROCEDURES AND FABRICATION DRAWINGS HAVE BEEN APPROVED BY SIMONS.
- ALL DIMENSIONS ARE IN FEET & INCHES.
- SUPPORT POINTS ARE PRELIMINARY.
- LADDERS & PLATFORMS TO CONFORM TO MSHA & OSHA REQUIREMENTS.
- GASKETS TO BE GARLOCK GYLON STYLE 3500.
- THREE (3) GROUNDING LUGS WILL BE SUPPLIED & SHIPPED LOOSE FOR FIELD LOCATION AND INSTALLATION.
- ALL ACCESS LADDERS ON TANKS SHALL HAVE A SAFETY CHAIN OR BAR PLACED AT TOP OF LADDER FACING THE TANK.
- ALL PIPE SUPPORT REINFORCING PADS TO BE 12" SQ MIN. SIZE FABRICATOR TO DETERMINE FINAL PAD SIZE, THICKNESS, & WELD SIZE. PIPING WILL BE BASE-SUPPORTED OFF OF THE CONCRETE FOUNDATION. PIPE SUPPORT REINFORCING PADS WILL CARRY ONLY HORIZONTAL LOADS DUE TO WIND, SEISMIC, ETC. REINFORCING PADS "A" WILL BE USED FOR A SINGLE 28" DIA. PIPE. REINFORCING PADS "B" WILL BE USED FOR A SINGLE 20" DIA. PIPE. REINFORCING PADS "C" WILL BE USED FOR TWO 12" DIA. PIPES, ONE FOR EACH PAD.

NOZZLE DATA

| MARK NO. | QTY. | SIZE | SERVICE | TYPE | RATING | FACING | PROJECTION | ELEV. ABOVE BOB |
|----------|------|------|----------|--------|--------|--------|------------|-----------------|
| N1 | 1 | 16" | SUCTION | FLANGE | 150# | FF | 1'-6" | 1'-2" |
| N2 | 1 | 16" | SUCTION | FLANGE | 150# | FF | 1'-3" | 1'-2" |
| N3 | 1 | 16" | SUCTION | FLANGE | 150# | FF | 1'-0" | 1'-2" |
| N4 | 1 | 16" | SUCTION | FLANGE | 150# | FF | 1'-0" | 1'-2" |
| N5 | 1 | 16" | SUCTION | FLANGE | 150# | FF | 1'-3" | 1'-2" |
| N6 | 1 | 16" | SUCTION | FLANGE | 150# | FF | 1'-6" | 1'-2" |
| N7 | 1 | 12" | DRAIN | FLANGE | 150# | FF | 0'-10" | 1'-0" |
| N8 | 1 | 30" | OVERFLOW | FLANGE | 150# | FF | 1'-0" | 22'-9" |
| N9 | 1 | 24" | SPARE | FLANGE | 150# | FF | 1'-0" | 1'-6" |
| N10 | 1 | 30" | SPARE | FLANGE | 150# | FF | 1'-0" | 1'-9" |
| M1 | 1 | 24" | MANWAY | FLANGE | API | API | 1'-0" | 2'-6" |



PLAN
TRUE ORIENTATION OF NOZZLES,
PLATFORMS, & RE-PADS



ELEVATION

| | | | |
|--|--|--|--|
| <p>SIMONS ENGINEERING INC. MINING GROUP PHOENIX, ARIZONA</p> | | <p>SIMONS DRAWING NO. 240M3205</p> | |
| <p>CHINO MINES COMPANY</p> | | <p>W026C</p> | |
| <p>LAMPBRIGHT BOOSTER STATION</p> | | <p>OFFSITE</p> | |
| <p>LAMPBRIGHT BOOSTER PUMP STATION</p> | | <p>B-240-M-3205</p> | |
| <p>TANK DATA SHEET</p> | | <p>240M3205</p> | |
| <p>LAST UPDATE: 9/12/9 12:05pm</p> | | <p>1</p> | |

| REFERENCES | | REVISIONS | |
|-------------|-------------------------------------|-----------|------------------------------------|
| 0240-G-3211 | LAMPBRIGHT BOOSTER PUMP STATION-GA. | 0 | A 9/7/10/14 ISSUED FOR APPROVAL |
| | | 1 | M 9/7/10/27 ISSUED FOR QUOTATION |
| | | 2 | S 9/7/12/9 ISSUED FOR CONSTRUCTION |

| NTS | | B | |
|-------------|----------|---|--|
| D. COX | 10-10-97 | | |
| D. STANISIC | 10/27/97 | | |
| K. GARDNER | 10-14-97 | | |
| J. ROGERS | 10/28/97 | | |



Tyrone Operations
P.O. Drawer 571
Tyrone, NM 88065

May 8, 2008

Certified Mail #70070710000177754876
Return Receipt Requested

Mr. Clint Marshall
New Mexico Environment Department
Mining Environmental Compliance Section
P. O. Box 26110
Santa Fe, New Mexico 87502

RECEIVED
MAY 13 2008

BY: _____

Dear Mr. Marshall:

**Re: Discharge Permit 455 (DP-455) Gettysburg
Pit and Leach System Amendment Request**

Freeport-McMoRan Tyrone Inc. (Tyrone) hereby submits this request to the New Mexico Environment Department (NMED) to amend Discharge Permit 455 (DP-455) Gettysburg Pit and Leach System. This request to amend DP-455 replaces an earlier amendment request submitted to NMED on March 13, 2008. Following that earlier amendment request, Tyrone, in consultation with NMED, submitted a Request for Temporary Permission to Discharge, also on March 13, 2008. NMED granted approval of the Temporary Permission to Discharge on March 17, 2008 for a period of 60 days in response to Tyrone's proposal to resume leaching operations that report to the bottom of Gettysburg Pit while monitoring the hydrologic response in the immediate vicinity. Tyrone resumed leaching on March 17 and has operated in accordance with the Conditions for Approval specified in the Temporary Permission to Discharge granted by NMED.

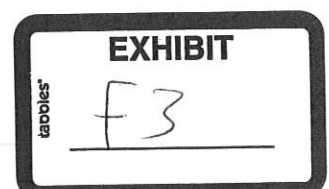
Tyrone has collected extensive data throughout the temporary permission period related to the pit lake level and the water levels in three monitoring wells installed between December 2007 and February 2008 along the north and east walls of the pit on the bench at elevation 5700 feet above mean sea level (amsl). The data has been submitted electronically on a weekly basis to NMED by email as specified in Condition 4 of the March 17 Temporary Permission from NMED. The data supports Tyrone's position that hydrologic conditions contain Pregnant Leach Solution (PLS) within Gettysburg pit bottom.

Based on these findings, Tyrone proposes that Condition 5 of DP-455 be amended to reflect the following two changes:

- 1) replacement of well GLD-7A with wells 455-2007-01 and 455-2008-03; and
- 2) replacement of well GLD-3A with well 455-2008-02

Additionally, Tyrone proposes the following set of five new conditions for amendment of DP-455 for long-term operation of PLS collection in Gettysburg Pit bottom for NMED's consideration:

1. Tyrone will establish an operating level of the pit lake not to exceed 5630 feet amsl under normal operating conditions. Tyrone's intent will be to set high level controls for the pump between 5627 and 5628 feet amsl preserving the additional volume up to the proposed limit of 5630 feet as freeboard for short-term storage of an additional volume of PLS that may



Mr. Clint Marshall
May 8, 2008
Page 2

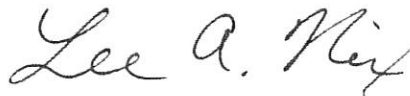
arise from operational upset conditions such as equipment or electrical malfunctions or failures.

2. Tyrone will measure water level elevations monthly in three monitoring wells on the 5700 ft amsl bench (wells 455-2007-01, 455-2008-02 and 455-2008-03) and the pit lake to the nearest hundredth of a foot. Tyrone will measure water level elevation quarterly in the single monitoring well on the 6060 ft amsl bench (well 455-2008-01) to the nearest hundredth of a foot.
3. Tyrone will measure field parameters (pH, temperature, specific conductance) quarterly in monitoring wells 455-2007-01, 455-2008-02 and 455-2008-03.
4. Tyrone will report the information required in Conditions 2 and 3 to NMED within semi-annual reports due in January and July of each year in accordance with current requirements of DP-455.
5. Tyrone will maintain a spare PLS pump and motor available for immediate replacement of the equipment used to pump the Gettysburg pit lake in the event that the operating equipment malfunctions or fails.

In addition to the proposed conditions above, Tyrone proposes a contingency plan for operations following heavy rainfall events. Rainfall events, particularly high frequency events that occur during the annual monsoon season, may lead to sudden increases in pit lake levels from storm water runoff. In addition, while Tyrone is committed to maintaining a spare pump and taking other measures to avoid any operational issues, in the event of any rise in lake levels for any other reason, Tyrone will commit to the same contingency measures, as follows. Tyrone proposes a short-term pit lake level limit not to exceed 5650 feet amsl to account for events of this type. Tyrone will work in a timely manner to pump the lake back down under the operational limit of 5630 feet within a time period not to exceed fourteen days following any excursion above 5630 feet amsl. If for any reason, the pit lake level exceeds 5650 feet amsl or in the event Tyrone is unable to reduce the lake level back under the 5630 feet operational level within fourteen days after any excursion above 5630 feet amsl, Tyrone will notify NMED by telephone on the fourteenth day of the excursion, and, within five days of the telephone report, will submit a contingency plan and schedule for reducing pit lake levels to within permitted values.

If you require additional information or clarification, please contact Mr. Lee Nix at (575) 538-7177.

Very truly yours,



for

Brent R. Fletcher, Manager
Environment, Land & Water

BRF:ln
20080508-100

c: Mary Ann Menetrey



GROUND WATER

Tyrone Operations
P.O. Drawer 571
Tyrone, NM 89065

OCT 06 2009

BUREAU

October 2, 2009

Certified Mail #70082810000241387896
Return Receipt Requested

Mr. William Olson
New Mexico Environment Department
Mining Environmental Compliance Section
P. O. Box 5469
Santa Fe, New Mexico 87502

Dear Mr. Olson:

Re: Amendment Request for Discharge Permit DP-455

Freeport-McMoRan Tyrone Inc. (Tyrone) hereby requests from the New Mexico Environment Department (NMED) an amendment to Discharge Permit DP-455. The amendment is requested to permit the operation of a reconfigured collection system for Pregnant Leachate Solution (PLS) on the 6C leach stockpile within DP-455. The request for amendment fulfills a requirement specified by NMED in a letter to Tyrone dated September 2, 2009 entitled *Unauthorized Construction and Operation of a PLS Collection System on the 6B Leach Stockpile, Freeport-McMoRan Tyrone Mine*. The purpose of the reconfigured PLS Collection System is to provide a quicker return of copper-bearing PLS from the stockpile.

Tyrone has constructed a small, perched PLS collection pond at an elevation of 6290 foot above mean sea level (amsl) on the 6C stockpile. Figure 1 illustrates the configuration of the perched PLS collection pond and the pipeline delivering PLS down the stockpile sideslope from the new pond at the 6290 foot level to the permitted 6C-2 PLS pond at the 5890 foot level.

The perched PLS collection pond is positioned at the low point of a bench on the stockpile that was specifically prepared through grading and placement of a compacted clay liner, to deliver PLS to the pond. A lift of approximately 40 feet of leach material was then placed on the prepared bench. Figure 2 provides details of the roller compacted clay liner in both a Plan View and a Cross-Section View. A 24-inch pipeline that reduces to 18 inches, collects PLS from behind the earthen headwall of the perched pond and transports it by gravity flow to the 6C-2 pond.

Leach solution, also called raffinate, is discharged to the top surface of the 6C stockpile at a rate not to exceed 4,400 gallons per minute, the maximum rate permitted by DP-455. After passing through the stockpile, the flow exits as PLS directed by the clay liner to the new perched PLS pond. The gravity flow pipeline is capable of delivering a flow of up to 12,000 gpm from

EXHIBIT

F4

tabbles

Mr. William Olson
October 2, 2009
Page 2

the perched pond to the 6C-2 pond. Due to the high velocity of flow through the pipeline down the steep stockpile slope, a device to dissipate energy is used on the exit end of the pipeline into the 6C-2 PLS Pond. The device consists of a short section of slotted, large-diameter pipe fitted over the end of the transfer pipeline. The purpose of the device is to minimize turbulence and frothing of the flow entering the 6C-2 pond.

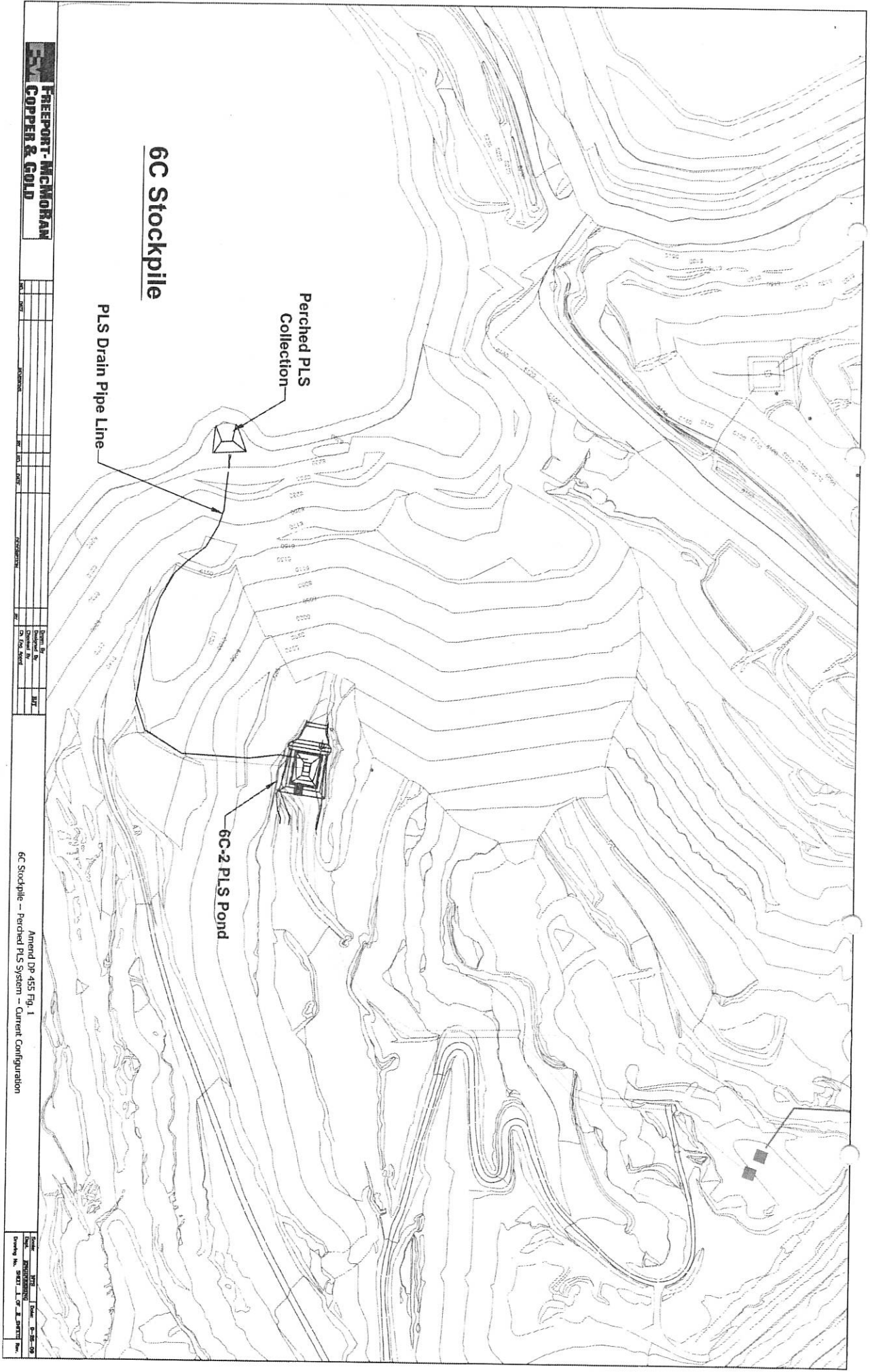
If additional information or clarification regarding the request to amend DP-455 is needed, please contact Mr. Lee Nix at (575) 538-7177.

Sincerely,

Lee A. Nix
for Timothy E. Eassey, Manager
Environment, Land & Water

TEE:ln
Attachments
20091002-100

c: Clint Marshall
George Llewellyn



FREEPORT-MCMORAN
COPPER & GOLD

| | | | | |
|-----|---------|-------------|-----|-------|
| NO. | DATE | DESCRIPTION | BY | CHKD. |
| 1 | 10/1/01 | 10/1/01 | JAT | |
| 2 | 10/1/01 | 10/1/01 | JAT | |
| 3 | 10/1/01 | 10/1/01 | JAT | |
| 4 | 10/1/01 | 10/1/01 | JAT | |
| 5 | 10/1/01 | 10/1/01 | JAT | |
| 6 | 10/1/01 | 10/1/01 | JAT | |
| 7 | 10/1/01 | 10/1/01 | JAT | |
| 8 | 10/1/01 | 10/1/01 | JAT | |
| 9 | 10/1/01 | 10/1/01 | JAT | |
| 10 | 10/1/01 | 10/1/01 | JAT | |

Amend DP 455 Fig. 1
6C Stockpile - Perched PLS System - Current Configuration

| | | | |
|-------------|-----------|------------|----------|
| Scale | 1" = 100' | Date | 10-28-01 |
| Drawn By | JAT | Checked By | JAT |
| Project No. | 3001 | Drawn Date | 10-28-01 |



Chino Mines Company
Box 10
Bayard, NM 88023

May 18, 2012

Certified Mail # 70111570000231144128
Return Receipt Requested

Mr. Kurt Vollbrecht
New Mexico Environment Department
Ground Water Quality Bureau
P. O. Box 5469
Santa Fe, New Mexico 87502

GROUND WATER
MAY 21 2012
BUREAU

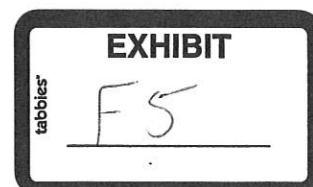
Dear Mr. Vollbrecht:

Re: Water Sources for Dust Suppression-
Chino Mine Pit Discharge Plan 459 (DP-459)

This letter is a follow up to telephone conversations between the New Mexico Environment Department and Chino Mines Company (Chino). During the conversations, Chino understood that certain water sources that do not meet all the New Mexico Water Quality Control Commission (NMWQCC) ground water standards could be used for dust suppression on haul roads within the Chino pit. This letter identifies the possible water sources and provides analytical data for each source.

Chino requests permission to use water from the Bullfrog Shaft, Cobre Tailings Decant Pond and DW-2 dewatering well for dust suppression on mine haul roads within the Chino pit. Demands for process and fresh water at Chino's mill and concentrator have resulted in a shortage of water at Chino. In order to better meet dust suppression needs Chino has evaluated water from several sources. Based on analytical test results (see Table 1), the most viable sources for water include the Bullfrog Shaft, Cobre Tailings Decant Pond and DW-2 dewatering well. As shown on Table 1 these sources exceed NMWQCC ground water standards for iron, manganese, fluoride, total sulfate and total dissolved solids (TDS).

To ensure that the water from the proposed sources will not adversely impact the Chino in-pit haul roads, Chino proposed that the water quality be monitored quarterly. The water in the Cobre Tailings Decant Pond is analyzed quarterly under DP-181. Chino proposed that the water from the Bullfrog shaft and DW-2 dewatering well be analyzed quarterly under DP-459.



Mr. Kurt Vollbrecht
May 18, 2012
Page 2

If you require additional information or have questions about this requires, please contact me at (575) 912-525.

Sincerely,

A handwritten signature in dark ink, appearing to read 'W. M. Katz', written in a cursive style.

William M. Katz, Chief Engineer
Environment, Land & Water

WMK
Attachments.
20120518-002

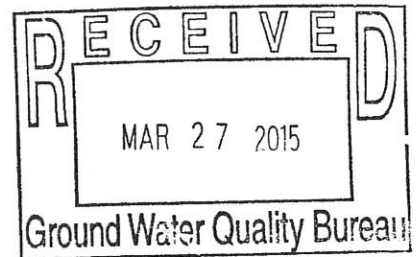
TABLE 1
ANALYTICAL DATA
PROPOSED WATER SOURCES FOR DUST SUPPRESSION IN PIT
FREEMONT MCMORAN CHINO MINES COMPANY

| Site Name | Sample Date | Al, Dis (mg/L) | Alk, CO3 (mg/L) | Alk, HCO3 (mg/L) | Alk, Tot. (mg/L) | As, Dis (mg/L) | Cu, Dis (mg/L) | Cd, Dis (mg/L) | Cl, Tot. (mg/L) | Co, Dis (mg/L) | Cond, Fld (microhm) | Cond, 25C (microhm) | Cu, Dis (mg/L) | Cu, Dis (mg/L) | Fe, Dis (mg/L) | K, Dis (mg/L) | Mg, Dis (mg/L) | F, Tot. (mg/L) | Mn, Dis (mg/L) | Na, Dis (mg/L) | NH, Dis (mg/L) | Ph, Dis (mg/L) | pH, Field (SU) | SO4, Tot. (mg/L) | TDS (mg/L) | Water Temp (Degrees C) | Water Temp (Degrees F) | Zn, Dis (mg/L) | | |
|---------------------------|-------------|----------------|-----------------|------------------|------------------|----------------|----------------|----------------|-----------------|----------------|---------------------|---------------------|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------|------------------------|------------------------|----------------|--------|--|
| Water Quality Standard | | 5 | | | | 0.1 | | 0.01 | 280 | 0.05 | | | 0.05 | | 1 | 1 | | 1.6 | 0.2 | 0.2 | 0.05 | 6 - 9 | 0.05 | 600 | 1000 | | | | | |
| Bulfinch Shaft | 06/12/2006 | <0.3 | <1 | 198 | 196 | 0.026 | 196 | 0.00914 | 26.5 | 0.007 | 1223 | 1346 | <0.006 | <0.1 | <0.6 | 3.73 | 64.1 | | 14.7 | 28.9 | <0.05 | <0.003 | 6.76 | <0.003 | 498 | 967 | 20.2 | 68.4 | 9.35 | |
| Bulfinch Shaft | 08/05/2011 | <0.080 | <1.0 | <1.0 | <1.0 | <0.025 | 264 | 0.0037 | 23.5 | 0.0066 | | | <0.0060 | <0.010 | 1 | 3.77 | 36.5 | 0.65 | 9.03 | 22.7 | <0.010 | <0.0075 | | <0.040 | 656 | 1290 | | | 7.95 | |
| DW-2 | 7/11/2011 | <0.08 | <1 | 701 | 701 | <0.025 | 704 | <0.0020 | 36.4 | 0.0469 | 2982 | | <0.0060 | <0.010 | 9.85 | 2.8 | 174 | <0.50 | 2.72 | 16.8 | 0.05 | <0.0075 | 6.26 | NA | 1640 | 3020 | 22.1 | | 0.0452 | |
| Cobretailings Pond Decant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DECANT | 06/19/2007 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | |
| DECANT | 06/23/2007 | <0.08 | <1 | <1 | 125 | <0.003 | 609 | <0.002 | 194 | 0.0118 | 3.049 | 3.400 | <0.006 | 0.019 | 1.19 | 17.6 | 210 | <0.2 | 5.42 | 164 | <0.01 | <0.003 | 5.27 | 0.00367 | 1.960 | 3.460 | 16.5 | 61.7 | 0.0512 | |
| DECANT | 10/09/2007 | <0.08 | <1 | 127 | 127 | <0.003 | 601 | <0.002 | 204 | 0.0123 | 2.985 | 3.633 | <0.006 | 0.018 | 1.22 | 19 | 208 | <0.2 | 5.33 | 164 | <0.01 | <0.003 | 5.28 | 0.00312 | 1.960 | 3.460 | 15.8 | 60.4 | 0.0522 | |
| DECANT | 01/24/2008 | <0.08 | <1 | 122 | 122 | <0.003 | 593 | <0.002 | 186 | 0.0106 | 2.897 | 3.563 | <0.006 | <0.01 | 1.27 | 18.9 | 187 | <0.5 | 5.6 | 142 | 0.01 | <0.003 | 7.18 | 0.00359 | 1.960 | 3.200 | 14.7 | 58.5 | 0.0456 | |
| DECANT | 04/08/2008 | <0.08 | <1 | 136 | 136 | <0.003 | 592 | <0.002 | 194 | 0.0102 | 2.956 | 3.623 | <0.006 | <0.01 | 1.21 | 15.7 | 170 | <0.2 | 5.15 | 141 | <0.01 | <0.003 | 6.12 | <0.003 | 1.990 | 3.300 | 15.4 | 59.7 | 0.0457 | |
| DECANT | 07/22/2008 | <0.08 | <1 | 138 | 138 | <0.003 | 466 | <0.002 | 197 | 0.0091 | 2.993 | 3.614 | <0.006 | <0.01 | 1.23 | 14.6 | 191 | <0.5 | 4.73 | 122 | 0.01 | <0.003 | 7.09 | <0.003 | 2.000 | 3.400 | 16 | 60.8 | 0.0456 | |
| DECANT | 10/13/2008 | <0.08 | <1 | 132 | 132 | <0.003 | 555 | <0.002 | 187 | 0.0101 | 3.039 | 3.603 | <0.006 | <0.01 | 1.11 | 14.5 | 165 | 0.734 | 5.98 | 140 | <0.01 | <0.003 | 6.42 | <0.003 | 2.170 | 3.300 | 14.6 | 62.2 | 0.0527 | |
| DECANT | 04/26/2009 | <0.08 | <1 | 122 | 122 | <0.003 | 590 | <0.002 | 196 | 0.0101 | 2.973 | 3.624 | <0.006 | <0.01 | 1.17 | 16.1 | 184 | 2.44 | 5.64 | 147 | <0.01 | <0.003 | 7.11 | 0.003 | 2.060 | 3.730 | 15.6 | 60.1 | 0.0445 | |
| DECANT | 07/12/2009 | <0.08 | <1 | 123 | 123 | <0.003 | 590 | <0.002 | 206 | 0.0103 | 2.973 | 3.632 | <0.006 | 0.013 | 1.16 | 17.4 | 192 | 1.26 | 5.79 | 147 | 0.018 | <0.003 | 7.07 | <0.003 | 2.110 | 3.400 | 15.5 | 59.9 | 0.0438 | |
| DECANT | 10/06/2009 | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2.942 | 3.628 | <0.006 | 0.012 | 1.84 | 15.8 | 183 | 0.84 | 5.34 | 132 | <0.01 | <0.003 | 7.17 | <0.003 | 2.060 | 3.420 | 14.1 | 57.4 | 0.0353 | |
| DECANT | 04/13/2010 | <0.081 | <1 | 124 | 124 | <0.003 | 521 | <0.002 | 203 | 0.0085 | 2.910 | 3.614 | <0.006 | 0.012 | 1.89 | 16.2 | 182 | 1.95 | 5.31 | 146 | <0.01 | <0.003 | 7.2 | <0.003 | 2.090 | 3.440 | 14.8 | 58.6 | 0.0372 | |
| DECANT | 07/12/2010 | <0.08 | <1 | 122 | 122 | <0.003 | 554 | <0.002 | 192 | 0.0096 | 3.192 | 3.605 | <0.006 | <0.01 | 1.83 | 16.2 | 184 | 1.93 | 5.36 | 144 | <0.01 | <0.003 | 7.07 | 0.00326 | 2.010 | 3.440 | 16 | 64.4 | 0.0319 | |
| DECANT | 10/14/2010 | <0.08 | <1 | 126 | 126 | <0.003 | 520 | <0.002 | 198 | 0.0092 | 2.872 | 3.533 | <0.006 | 0.01 | 1.99 | 16 | 174 | <1 | 5.24 | 138 | <0.01 | <0.003 | 6.99 | 0.00362 | 2.080 | 3.360 | 15.2 | 64.6 | 0.0316 | |
| DECANT | 01/19/2011 | <0.08 | <1 | 124 | 124 | <0.003 | 539 | <0.002 | 217 | 0.0099 | 2.909 | 3.619 | <0.006 | 0.014 | 1.13 | 16.1 | 183 | <1 | 5.73 | 137 | <0.01 | <0.003 | 7.14 | 0.00462 | 2.130 | 3.370 | 14.6 | 58.3 | 0.0357 | |
| DECANT | 05/02/2011 | <0.08 | <1 | 125 | 125 | <0.003 | 564 | <0.002 | 201 | 0.0097 | 2.710 | 3.382 | <0.006 | 0.011 | 1.08 | 16.5 | 188 | 1.12 | 5.65 | 144 | <0.01 | <0.003 | 7.1 | 0.00462 | 2.150 | 3.340 | 14.6 | 58.3 | 0.0352 | |
| DECANT | 07/07/2011 | <0.08 | <1 | 124 | 124 | <0.003 | 517 | <0.002 | 195 | 0.0082 | 2.986 | 3.617 | <0.006 | 0.011 | 1.05 | 16.1 | 176 | 1.06 | 5.47 | 139 | <0.01 | <0.003 | 7.06 | 0.00677 | 2.070 | 3.430 | 17.5 | 63.5 | 0.0351 | |
| DECANT | 10/24/2011 | <0.08 | <1 | 124 | 124 | <0.003 | 529 | <0.002 | 201 | 0.0085 | 2.960 | 3.495 | <0.006 | <0.01 | 1.07 | 15.8 | 181 | 1.14 | 5.55 | 141 | <0.01 | <0.003 | 7.12 | <0.003 | 2.090 | 3.380 | 15.5 | 59.8 | 0.0337 | |
| DECANT | 01/10/2012 | <0.08 | <1 | 119 | 119 | <0.003 | 511 | <0.002 | 176 | 0.008 | 2.832 | 3.536 | <0.006 | <0.01 | 0.971 | 16.4 | 178 | <0.1 | 5.35 | 134 | <0.01 | <0.003 | 7.17 | 0.00427 | 2.070 | 3.340 | 14.7 | 58.5 | 0.0357 | |



Freeport-McMoRan Chino Mines Company
P.O. Box 10
Bayard, NM 88023

March 24, 2015



Certified Mail #70133020000181686183
Return Receipt Requested

Mr. Brad Reid
New Mexico Environment Department
Ground Water Quality Bureau
P. O. Box 5469
Santa Fe, New Mexico 87502

GROUND WATER

MAR 27 2015

BUREAU

Dear Mr. Reid:

Re: Amendment Request for Dust Suppression Water
Discharge Permits DP-1568, DP-526, DP-459 and DP- 376

The New Mexico Environment Department (NMED) provided Permit Conditions for dust control water at the Freeport-McMoRan Chino Mines Company (Chino) in a letter dated June 22, 2012. The last sentence of Condition 1 states, "If at some time in the future Chino wishes to use an alternative source of dust suppression water, Chino shall notify NMED prior to the proposed change."

Chino request an amendment to add the Star Shaft and the Oswaldo Shaft to the existing sources for dust suppression water. Analytical data and a figure showing the location of these water sources are attached.

Chino has also added an additional water spout with the designation Cafe Queue Water Spout. It is located near the North East stockpile and is shown on the attached figure.

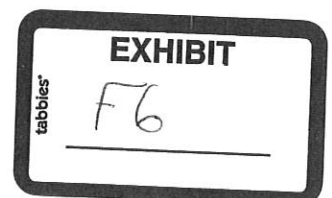
The second paragraph under the Background section of NMED's letter stated, "Chino has requested to apply a maximum of 1.5 million gallons per day of water for suppression...". Chino has found that on some hot, dry days as much as 2.0 million gallons per day may be required for dust suppression but on most days the 1.5 million gallons per day is sufficient.

If you require additional information, please contact Christian Krueger at (575) 912-5349.

Sincerely,

William M. Katz, Chief Engineer
Environmental Services

WMK
Attachments
20150324-002



Freeport-McMoran Copper Gold Inc. Water Quality Monitoring Data

| Site Number | Sample Date | Ag. Diss (mg/L) | Al. Diss (mg/L) | Alk. CO3 (mg/L) | Alk. HCO3 (mg/L) | Alk. Tot. (mg/L) | AmmonSum (mg/L) | As. Diss (mg/L) | Ba. Diss (mg/L) | Be. Diss (mg/L) | Be. TR (mg/L) | Ca. Diss (mg/L) | Ca. Tot. (mg/L) | Calc'n % Diff (% Diff) | Calc'n Sum (mg/L) | Calc'nSum (mg/L) | Cd. Diss (mg/L) | Co. Diss (mg/L) | Cond. 25C (micromhmo) | Cr. Diss (mg/L) | Cu. Diss (mg/L) | Depth to Water (feet) | F. Tot. (mg/L) | Fe. Diss (mg/L) | GW Level (feet) | | |
|------------------------|-------------|-----------------|-----------------|-----------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|---------------|-----------------|-----------------|------------------------|-------------------|------------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------------|----------------|-----------------|-----------------|------|----------|
| Water Quality Standard | | 0.05 | 5 | | | | | 0.1 | 1 | | | | | | | | 0.01 | 0.05 | | 0.05 | 1 | | 1.6 | 1 | | | |
| Oswaldo 2 | 07/21/2011 | <0.005 | <0.08 | <1 | 903 | 903 | 64,259 | <0.025 | 0.0124 | <0.002 | <0.002 | 532 | 513 | -7.02 | 120.086 | 55.827 | <0.002 | 0.502 | | 3.464 | <0.006 | 0.031 | | 452.68 | 1.46 | 34.4 | N/A |
| Oswaldo 2 | 09/05/2014 | <0.005 | <0.08 | <1 | 232 | 232 | 58,971 | <0.025 | 0.0164 | <0.002 | <0.002 | 551 | 488 | -0.41 | 117.464 | 58.493 | <0.002 | 0.452 | | 3.464 | <0.006 | <0.01 | | 455.28 | 1.78 | 20.8 | N/A |
| Star Shaft | 07/23/2013 | NA | <0.08 | <1 | 360 | 360 | 42,661 | <0.025 | NA | NA | NA | 549 | NA | -5.48 | 80.889 | 38.228 | <0.002 | <0.006 | | 2.835 | <0.006 | <0.01 | | 682.94 | 1.89 | 4.74 | 5,370.53 |
| Star Shaft | 07/22/2014 | NA | <0.08 | <1 | 366 | 366 | 41,537 | <0.025 | NA | NA | NA | 569 | NA | -1.65 | 81.722 | 40.185 | <0.002 | <0.006 | | 2.779 | <0.006 | <0.01 | | 691.8 | 1.67 | 3.44 | 5,361.67 |
| Star Shaft | 10/02/2014 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 683 | NA | NA | 5,370.47 | | |
| Star Shaft | 10/08/2014 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2.829 | NA | NA | 694.4 | NA | NA | 5,359.07 | | |
| Star Shaft | 01/21/2015 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2.779 | NA | NA | 694.8 | NA | NA | 5,358.67 | | |

| Site Number | Sample Date | Hg. Tot. (mg/L) | K. Tot. (mg/L) | Mg. Tot. (mg/L) | Mn. Diss (mg/L) | Mn. Tot. (mg/L) | Mo. Diss (mg/L) | Na. Diss (mg/L) | Na. Tot. (mg/L) | Ni. Tot. (mg/L) | Pb. Diss (mg/L) | Pb. Tot. (mg/L) | pH, Field (SU) | Se. Diss (mg/L) | Se. TR (mg/L) | SO4. Tot. (mg/L) | TDS (mg/L) | Zn. Diss (mg/L) |
|------------------------|-------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|---------------|------------------|------------|-----------------|
| Water Quality Standard | | | | | 0.2 | | | 1 | | | 0.05 | | 6 - 9 | 0.05 | | 600 | 1000 | 10 |
| Oswaldo 2 | 07/21/2011 | 0.00289 | 5.78 | 280 | 24.3 | 25.5 | 0.013 | 63.5 | 60 | 0.193 | <0.0075 | <0.0075 | 5.96 | 0.084 | <0.04 | 2,130 | 3,820 | 15.3 |
| Oswaldo 2 | 09/05/2014 | <0.0002 | 5.37 | 293 | 24.5 | 24.4 | <0.008 | 73.9 | 68 | 0.178 | <0.0075 | <0.0075 | 6.22 | <0.04 | <0.04 | 2,520 | 3,770 | 11.2 |
| Star Shaft | 07/23/2013 | NA | NA | NA | 6.61 | NA | NA | 52.1 | NA | NA | <0.0075 | NA | 6.53 | NA | NA | 1,670 | 2,570 | 0.528 |
| Star Shaft | 07/22/2014 | NA | NA | NA | 7.02 | NA | NA | 58.8 | NA | NA | <0.0075 | NA | 6.51 | NA | NA | 1,610 | 2,600 | 0.546 |
| Star Shaft | 10/02/2014 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Star Shaft | 10/08/2014 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 6.59 | NA | NA | 1,590 | 2,580 | NA |
| Star Shaft | 01/21/2015 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 6.63 | NA | NA | 1,690 | 2,620 | NA |





Tyone Operations
P.O. Drawer 571
Tyone, NM 88065

GROUND WATER

FEB 15 2013

BUREAU

February 13, 2013

Certified Mail #70102780000344915984
Return Receipt Requested

Mr. Jerry Schoepner
New Mexico Environment Department
Mining Environmental Compliance Section
P. O. Box 5469
Santa Fe, New Mexico 87502

Dear Mr. Schoepner:

Re: Amendment Request for Discharge Permit
DP-1236 for Dewatering Facilities for Little Rock Pit

Freeport-McMoRan Tyone Inc. (Tyone) hereby requests from the New Mexico Environment Department (NMED) an amendment to Discharge Permit DP-1236. The amendment is requested to permit the addition of facilities for handling groundwater and storm water to be removed through dewatering of the Little Rock pit in advance of future mining. Tyone is currently requesting to amend DP-1236 to account for the first phase of dewatering at Little Rock pit. Additional amendments will be required for future dewatering phases.

Currently, operations at Little Rock are mining through the 5900 foot elevation in the eastern portion of the Little Rock deposit. Based on historic water levels encountered in monitoring wells, it is expected that groundwater will be encountered at an elevation of approximately 5800 – 5850 feet above mean sea level (amsl). It is anticipated that groundwater may be intercepted as soon as late February 2013 and will require the facilities described below for accumulating and pumping the water to Tyone Mine where the water will enter the Tyone process water loop.

Plans for dewatering facilities (i.e. sumps, pumps and pipelines) are shown in the attached set of four figures. Figure 1 is an overall view of the general arrangement of the pit dewatering system. Critical components of the system include the Pit Booster Pump Station on the 5800 foot level, the Phase 1 Booster Pump Station on the 6000 foot level, and the series of three Decant Ponds on the 6150 foot Level. Each of these facilities is shown in its topographic context in Figure 2.

taobles

EXHIBIT

F7

As water is initially encountered as free liquid, it will be collected in a dewatering sump excavated in the rock of the lowest current mining level. It is unknown currently whether groundwater will begin to collect at the 5850 foot level or the 5800 foot level. If water is encountered at the 5850 foot level, a temporary dewatering sump with an approximate volume of 65,000 gallons will be dug along the southern edge of the pit. If water is not encountered until the 5800 foot level or lower, a permanent Pit Booster sump will be excavated on the southern edge of the pit as shown in Figure 2 on the 5800 foot level. The unlined pit booster collection will have an approximate volume of 850,000 gallons. A series of temporary dewatering sumps will be excavated in successive levels as the pit is deepened. A typical dewatering sump is shown in Figure 2 but its exact location as well as the locations of future dewatering sumps is not known at this time. Water collected from the series of dewatering sumps will be pumped via a diesel powered pump to the permanent Pit Booster Station on the 5800 foot level.

The Pit Booster Station will also be configured with a diesel pump that will be cycled on and off with demand during early dewatering efforts. From the Pit Booster Station, accumulated groundwater and storm water will be pumped through an 8-inch High Density Polyethylene (HDPE) pipeline to the Phase 1 Booster Station on the northwestern edge of the current pit as illustrated in Figure 2.

The Phase 1 Booster Station will consist of two unlined sumps arranged in series that will also serve as settling basins for sediments. The first sump has an approximate volume of 480,000 gallons and the second sump has an approximate volume of 290,000 gallons. In addition to the flow from the Pit Booster Pump, the Phase 1 Booster Station will collect the flow from CLDS and CLDS-1, which are seepage collection flows associated with the reclaimed former leach stockpile located southwest of the current pit. Current flows from the two seepage collections are estimated to be less than 2 gallons per minute. The Phase 1 Booster Station will only be operated until approximately the fourth quarter of 2013. The location of the Phase 1 Booster Station itself is expected to be mined out in early 2014. Planning is still underway for a replacement Booster Station for subsequent phases of dewatering and will be described in a future amendment request for DP-1236.

Water from the Phase 1 Booster Station will be pumped by a diesel powered pump through an HDPE pipeline to a series of three Decant Ponds as shown in Figure 3. Water will flow from Pond 1 to Pond 2 and then Pond 3 by gravity. The Decant Ponds will facilitate settling of solids within each pond. The three ponds will be connected in series and are located on the northwest side of the Little Rock Pit. The Decant Ponds will be in use until approximately 2017 when the location will be mined out. Subsequent amendments to DP-1236 will be required for operations at that time.

The approximate volumes of the Decant Ponds are

1. Decant Pond 1 1,400,000 gallons
2. Decant Pond 2 1,400,000 gallons
3. Decant Pond 3 1,500,000 gallons

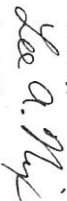
Mr. Jerry Schoeppner
February 13, 2013
Page 2

Following settling in the series of three decant ponds, water exiting Pond 3 will be gravity fed through an HDPE pipeline to the existing lined 1X1 Pond by tying in to the existing permitted seepage conveyance line in California Gulch (Figure 4). Near the point where the gravity line crosses California Gulch, a sediment sump will be excavated to facilitate maintenance if the line becomes clogged with sediment and requires clearing. This location is within the boundaries of the Little Rock pit limits and will be mined out in a later phase of Little Rock mining. The approximate volume of the sediment sump is 15,000 gallons.

The lined 1X1 Pond is permitted for use as a retention pond for collecting impacted water from the Ohio Mine dam and from former operations at Little Rock. It is proposed that the pond now be permitted for use as a collection pond and pump station for water generated from dewatering efforts at Little Rock mine. Initially, a diesel powered pump will be stationed at the 1X1 Pond. By approximately the fourth quarter of 2013, the diesel pump is scheduled to be replaced by a permanent electric pump that will operate for future dewatering operations. As shown in Figure 1, water from 1X1 Pond will be pumped via an existing permitted pipeline across reclaimed 1A Tailing Dam to an existing booster pump station at the toe of the Tyrone 3A Leach Stockpile. The booster station reports to the raffinate tanks at the SXEW plant completing the Little Rock dewatering route.

If additional information or clarification regarding the request to amend DP-1236 is needed, please contact Mr. Lee Nix at (575) 912-5777.

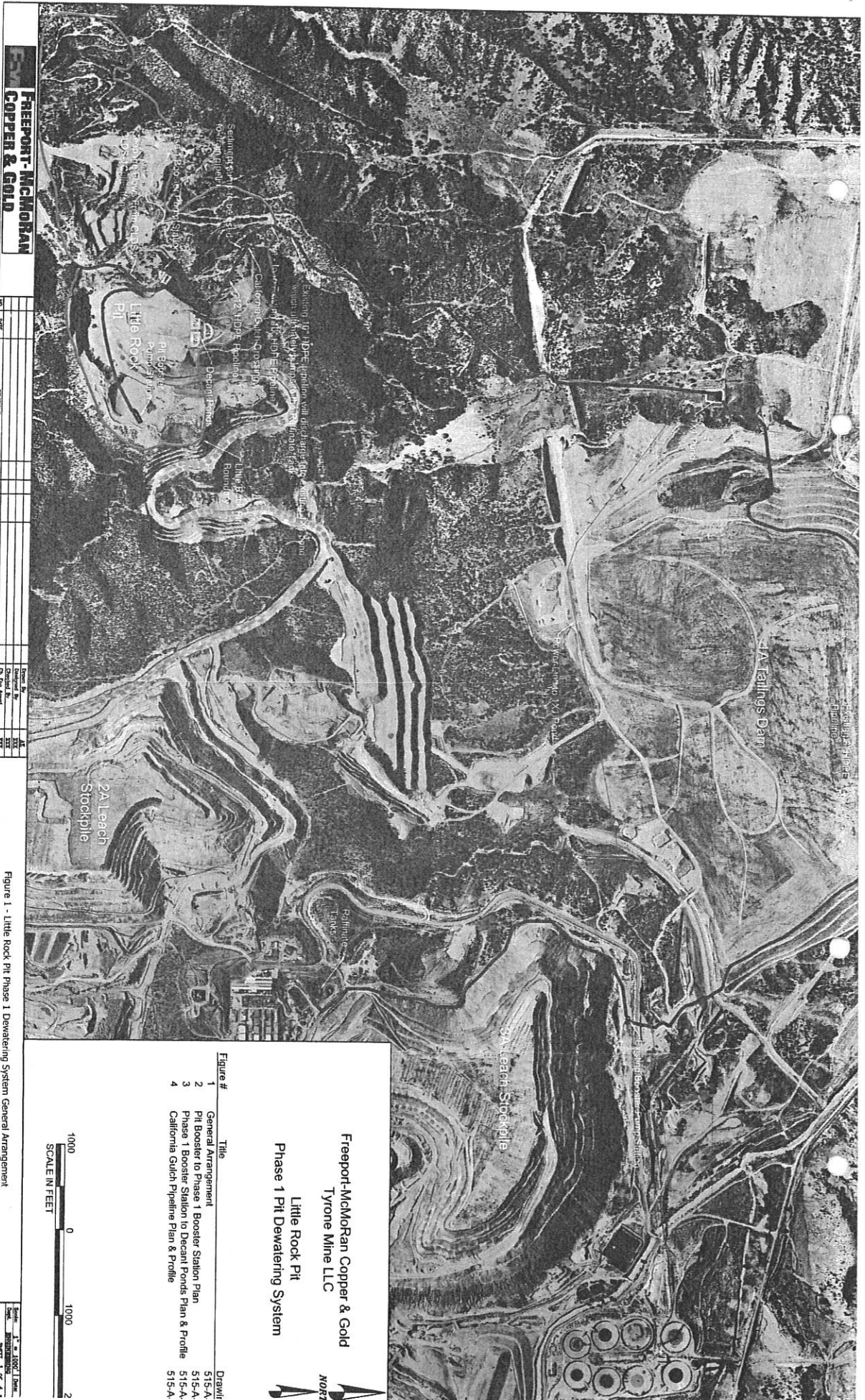
Sincerely,

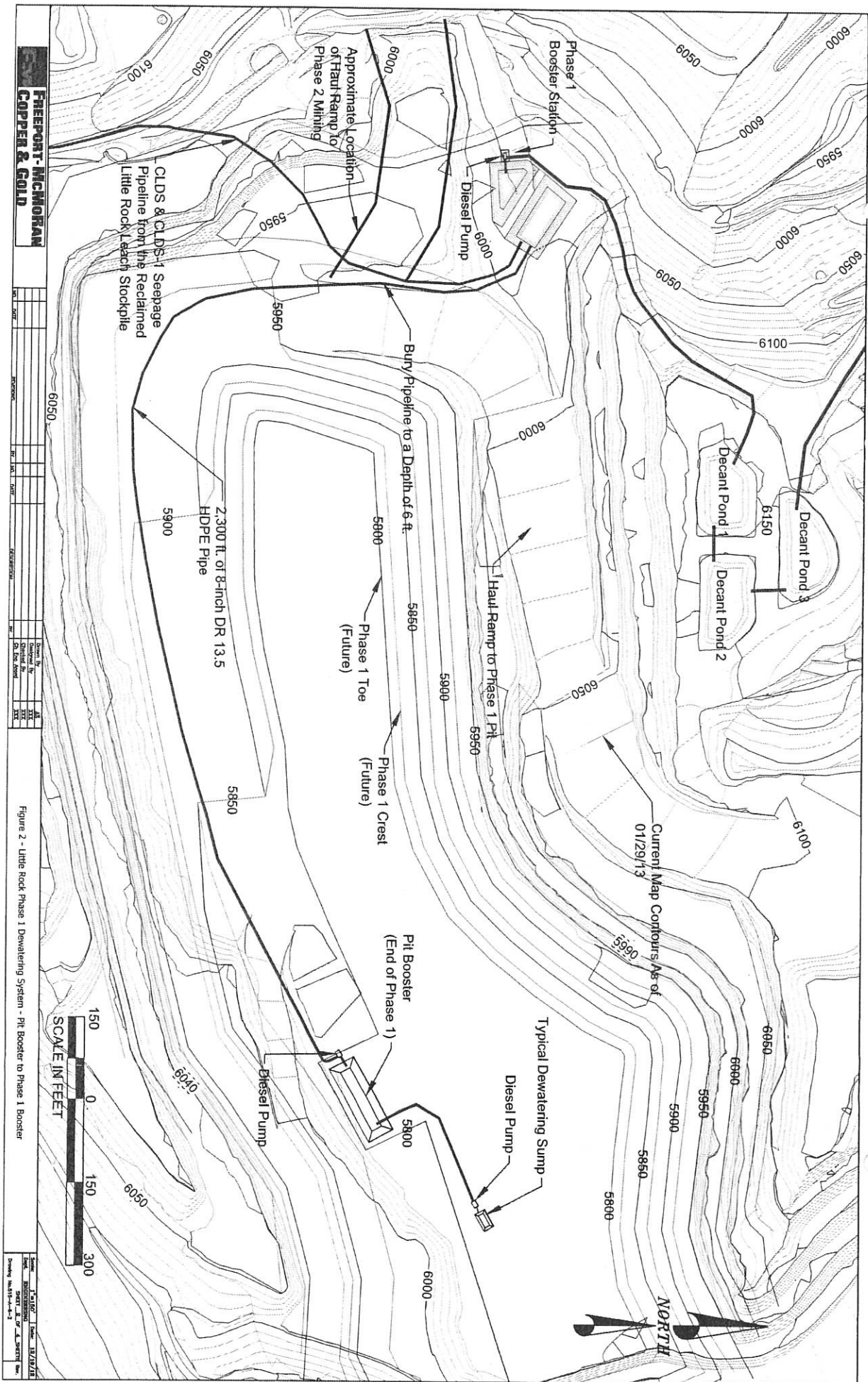


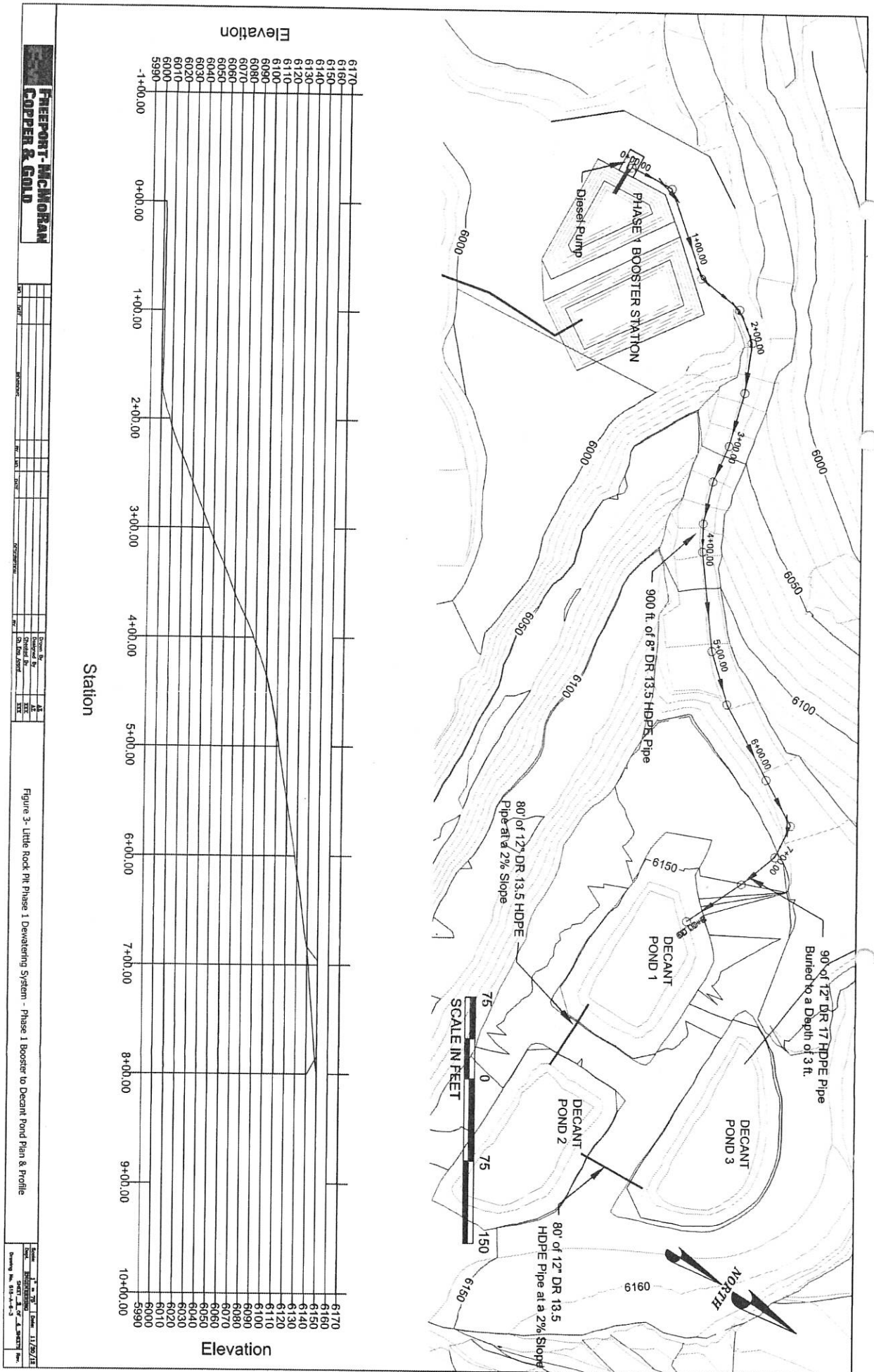
Lee A. Nix
Chief Environmental Engineer
Environment, Land & Water

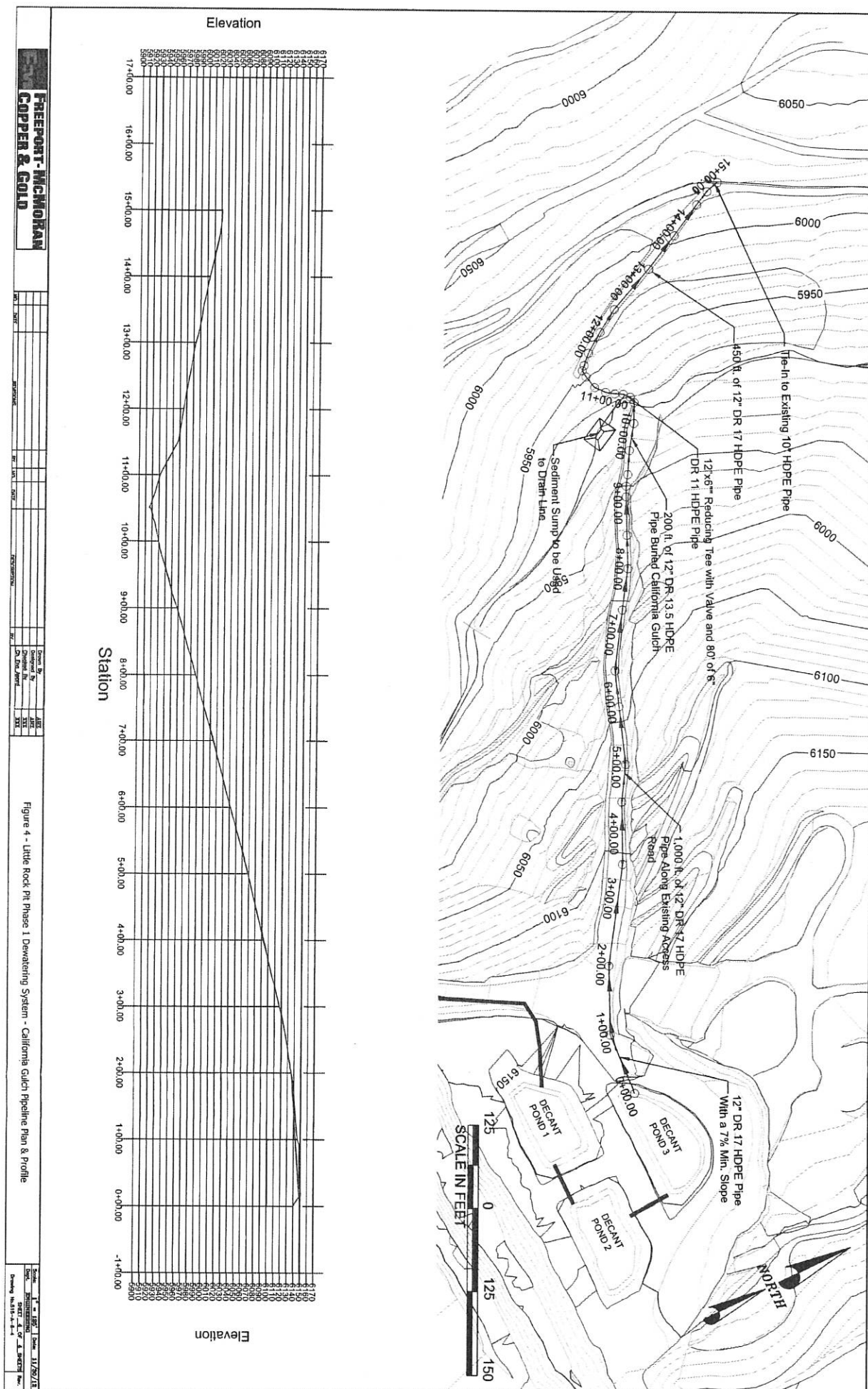
LAN
Attachments
20130213-101

c: Keith Ehler, NMED
Clint Marshall, NMED











Freeport-McMoRan Chino Mines
Company
Box 10
Bayard, NM 88023

February 21, 2014

Certified Mail #70131710000059404774
Return Receipt Requested

GROUND WATER

Mr. Brad Reid
New Mexico Environment Department
Ground Water Quality Bureau
P. O. Box 5469
Santa Fe, New Mexico 87502

FEB 25 2014

BUREAU

Dear Mr. Reid:

Re: Whitewater Leach System – Discharge Permit 526 (DP-526)
Condition 56, Amendment Request for Relocation of Frog Pond

Freeport-McMoRan Chino Mines Company (Chino) is requesting the New Mexico Environment Department approve an amendment to DP-526 (October 3, 2006) for relocation of Frog Pond. Chino proposes to construct the Frog Pond along the toe of the West Stockpile (see attached sheet number 1-2). The purpose of this relocation is to accommodate the Lee Hill expansion project. The chemical composition of Frog Pond solutions will not change. Attachments include:

- Construction Diagrams and Aerial Location Map (Sheet No. 1-1 through 1-3 and 2-1 through 2-5)
- Check (Check No. 808692) in the Amount of 500 Dollars

If you have any questions or require additional information, please contact Christian Krueger at (575) 912-5349.

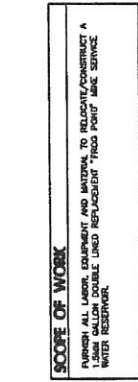
Sincerely,

William M. Katz, Chief Environmental Engineer
Environmental Services

WMK: ck
Attachments
20140221-001




PROJECT: FREEPORT-McMORAN, CHINO MINES FREEPORT RELOCATION

[illegible]

| ITEM | DESCRIPTION |
|------|----------------------------|
| 1 | EARTHWORK - CUT VOLUMES |
| 2 | EARTHWORK - FILL VOLUMES |
| 3 | IRON-RODDED GEOTEXTILE 16 |
| 4 | 60 MIL THICKNESS LAYER (V) |
| 5 | 60 MIL LAYER (OUTER) |
| 6 | PERFORATED DRAINAGE LAYER |
| 7 | 3IN DIAMETER PVC 3000/34 |



| | | | | |
|--|-----|-------------|-------------|----|
| 1 | NO. | DESCRIPTION | DATE | BY |
| <div style="text-align: center;"> REVISIONS (OR CHANGE NOTICES) <h1>ENGINEERS INC.</h1> </div> | | | | |
| <div style="text-align: center;">  </div> | | | | |
| <div style="text-align: center;"> 1010 S. WASHINGTON ST. SUITE 200 INDIANAPOLIS, IN 46202-1000 TEL: 317-644-1234 FAX: 317-644-1235 WWW.ENGINERSINC.COM </div> | | | | |
| SHEET NO. | | | COVER SHEET | |

PROJECT: FREDPORT-MADONNA CHINO MINES FROG POND RELOCATION



1 FROG POND RELOCATION - PROJECT VICINITY MAP
1-2 NOT TO SCALE

| | | | | |
|---|-----|-------------|------|----|
| 1 | NO. | DESCRIPTION | DATE | BY |
| REVISIONS (OR CHANGE NOTICES) | | | | |
| ENGINEERS INC. | | | | |
| JIM S. GALLAGHER, P.E. 2007 2010 2013 2016 2019 2022 2025 2028 2031 2034 2037 2040 2043 2046 2049 2052 2055 2058 2061 2064 2067 2070 2073 2076 2079 2082 2085 2088 2091 2094 2097 2100 2103 2106 2109 2112 2115 2118 2121 2124 2127 2130 2133 2136 2139 2142 2145 2148 2151 2154 2157 2160 2163 2166 2169 2172 2175 2178 2181 2184 2187 2190 2193 2196 2199 2202 2205 2208 2211 2214 2217 2220 2223 2226 2229 2232 2235 2238 2241 2244 2247 2250 2253 2256 2259 2262 2265 2268 2271 2274 2277 2280 2283 2286 2289 2292 2295 2298 2301 2304 2307 2310 2313 2316 2319 2322 2325 2328 2331 2334 2337 2340 2343 2346 2349 2352 2355 2358 2361 2364 2367 2370 2373 2376 2379 2382 2385 2388 2391 2394 2397 2400 2403 2406 2409 2412 2415 2418 2421 2424 2427 2430 2433 2436 2439 2442 2445 2448 2451 2454 2457 2460 2463 2466 2469 2472 2475 2478 2481 2484 2487 2490 2493 2496 2499 2502 2505 2508 2511 2514 2517 2520 2523 2526 2529 2532 2535 2538 2541 2544 2547 2550 2553 2556 2559 2562 2565 2568 2571 2574 2577 2580 2583 2586 2589 2592 2595 2598 2601 2604 2607 2610 2613 2616 2619 2622 2625 2628 2631 2634 2637 2640 2643 2646 2649 2652 2655 2658 2661 2664 2667 2670 2673 2676 2679 2682 2685 2688 2691 2694 2697 2700 2703 2706 2709 2712 2715 2718 2721 2724 2727 2730 2733 2736 2739 2742 2745 2748 2751 2754 2757 2760 2763 2766 2769 2772 2775 2778 2781 2784 2787 2790 2793 2796 2799 2802 2805 2808 2811 2814 2817 2820 2823 2826 2829 2832 2835 2838 2841 2844 2847 2850 2853 2856 2859 2862 2865 2868 2871 2874 2877 2880 2883 2886 2889 2892 2895 2898 2901 2904 2907 2910 2913 2916 2919 2922 2925 2928 2931 2934 2937 2940 2943 2946 2949 2952 2955 2958 2961 2964 2967 2970 2973 2976 2979 2982 2985 2988 2991 2994 2997 3000 3003 3006 3009 3012 3015 3018 3021 3024 3027 3030 3033 3036 3039 3042 3045 3048 3051 3054 3057 3060 3063 3066 3069 3072 3075 3078 3081 3084 3087 3090 3093 3096 3099 3102 3105 3108 3111 3114 3117 3120 3123 3126 3129 3132 3135 3138 3141 3144 3147 3150 3153 3156 3159 3162 3165 3168 3171 3174 3177 3180 3183 3186 3189 3192 3195 3198 3201 3204 3207 3210 3213 3216 3219 3222 3225 3228 3231 3234 3237 3240 3243 3246 3249 3252 3255 3258 3261 3264 3267 3270 3273 3276 3279 3282 3285 3288 3291 3294 3297 3300 3303 3306 3309 3312 3315 3318 3321 3324 3327 3330 3333 3336 3339 3342 3345 3348 3351 3354 3357 3360 3363 3366 3369 3372 3375 3378 3381 3384 3387 3390 3393 3396 3399 3402 3405 3408 3411 3414 3417 3420 3423 3426 3429 3432 3435 3438 3441 3444 3447 3450 3453 3456 3459 3462 3465 3468 3471 3474 3477 3480 3483 3486 3489 3492 3495 3498 3501 3504 3507 3510 3513 3516 3519 3522 3525 3528 3531 3534 3537 3540 3543 3546 3549 3552 3555 3558 3561 3564 3567 3570 3573 3576 3579 3582 3585 3588 3591 3594 3597 3600 3603 3606 3609 3612 3615 3618 3621 3624 3627 3630 3633 3636 3639 3642 3645 3648 3651 3654 3657 3660 3663 3666 3669 3672 3675 3678 3681 3684 3687 3690 3693 3696 3699 3702 3705 3708 3711 3714 3717 3720 3723 3726 3729 3732 3735 3738 3741 3744 3747 3750 3753 3756 3759 3762 3765 3768 3771 3774 3777 3780 3783 3786 3789 3792 3795 3798 3801 3804 3807 3810 3813 3816 3819 3822 3825 3828 3831 3834 3837 3840 3843 3846 3849 3852 3855 3858 3861 3864 3867 3870 3873 3876 3879 3882 3885 3888 3891 3894 3897 3900 3903 3906 3909 3912 3915 3918 3921 3924 3927 3930 3933 3936 3939 3942 3945 3948 3951 3954 3957 3960 3963 3966 3969 3972 3975 3978 3981 3984 3987 3990 3993 3996 4000 | | | | |

SHEET NO. 1-2

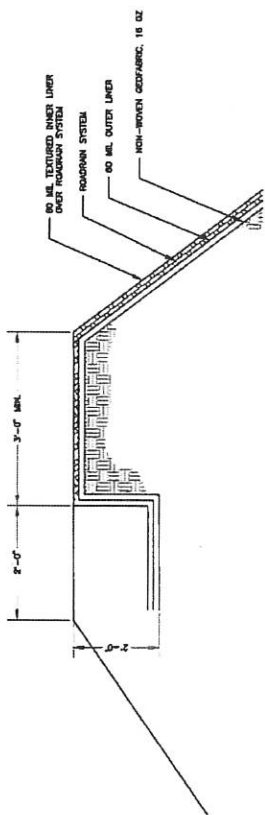
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DATE: 12/28/14 1:21 PM

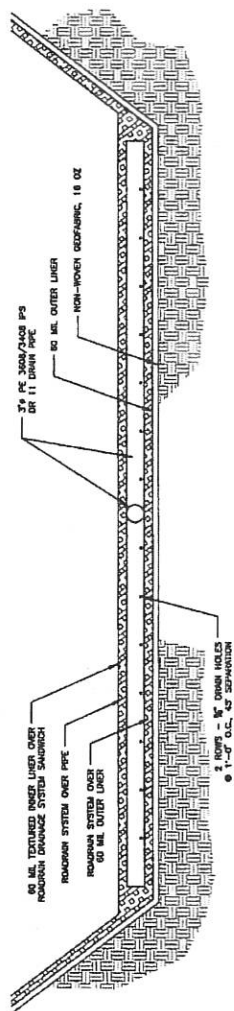
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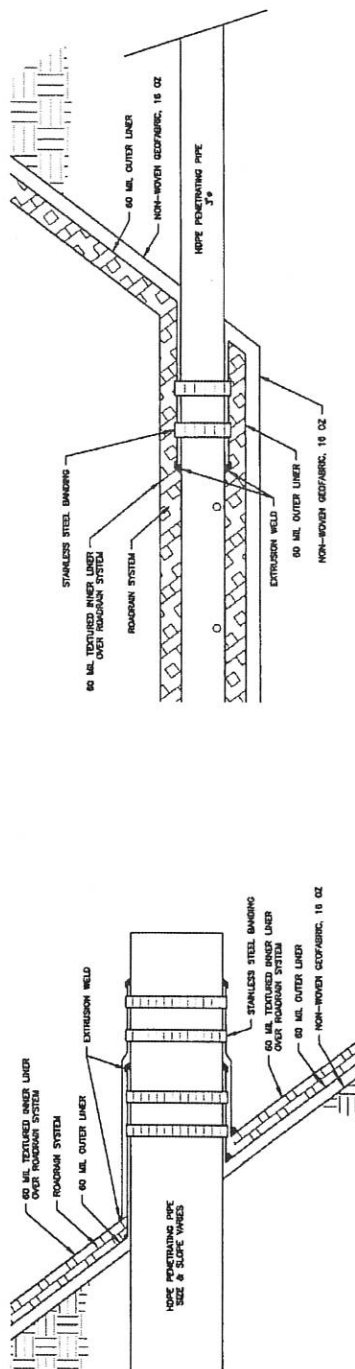
DESIGNED BY: GARY ROMANI BERG
CHECKED BY: JIM S. GALLAGHER, P.E.
DATE: 12/28/14 1:21 PM



2 POND - TYPICAL ANCHOR TRENCH (DOUBLE LINER W/DRAINAGE LAYER & CUSHION GEOTEXTILE)
1-3 NTS



3 POND - SECTION VIEW TYPICAL (DOUBLE LINER W/DRAINAGE LAYER & CUSHION GEOTEXTILE)
1-3 NTS



5 POUND - TYPICAL PIPE PENETRATION (SINGLE LINER)
1-3 NTS



ENGINEERS
INC

| NO. | DESCRIPTION | DATE | BY |
|---------------------------------|-------------|------|----|
| SIGNATURE (NO. CURRENT MEMBERS) | | | |

801 W. COLLINS AVE. SUITE 1
 SALT LAKE CITY, UTAH 84103-2001
 (801) 531-1233 (WORK)
 (801) 531-1440 (FAX)

SHEET TITLE: **FROG POND**
**CLINITE DITCH, ANCHOR TRENCH,
 POND LINERS, DRAIN PIPE, &
 LINER PENETRATION DETAILS**

PROJECT: FREIGHT-HAULROAD, CHINO MILES FROG POND RELOCATION



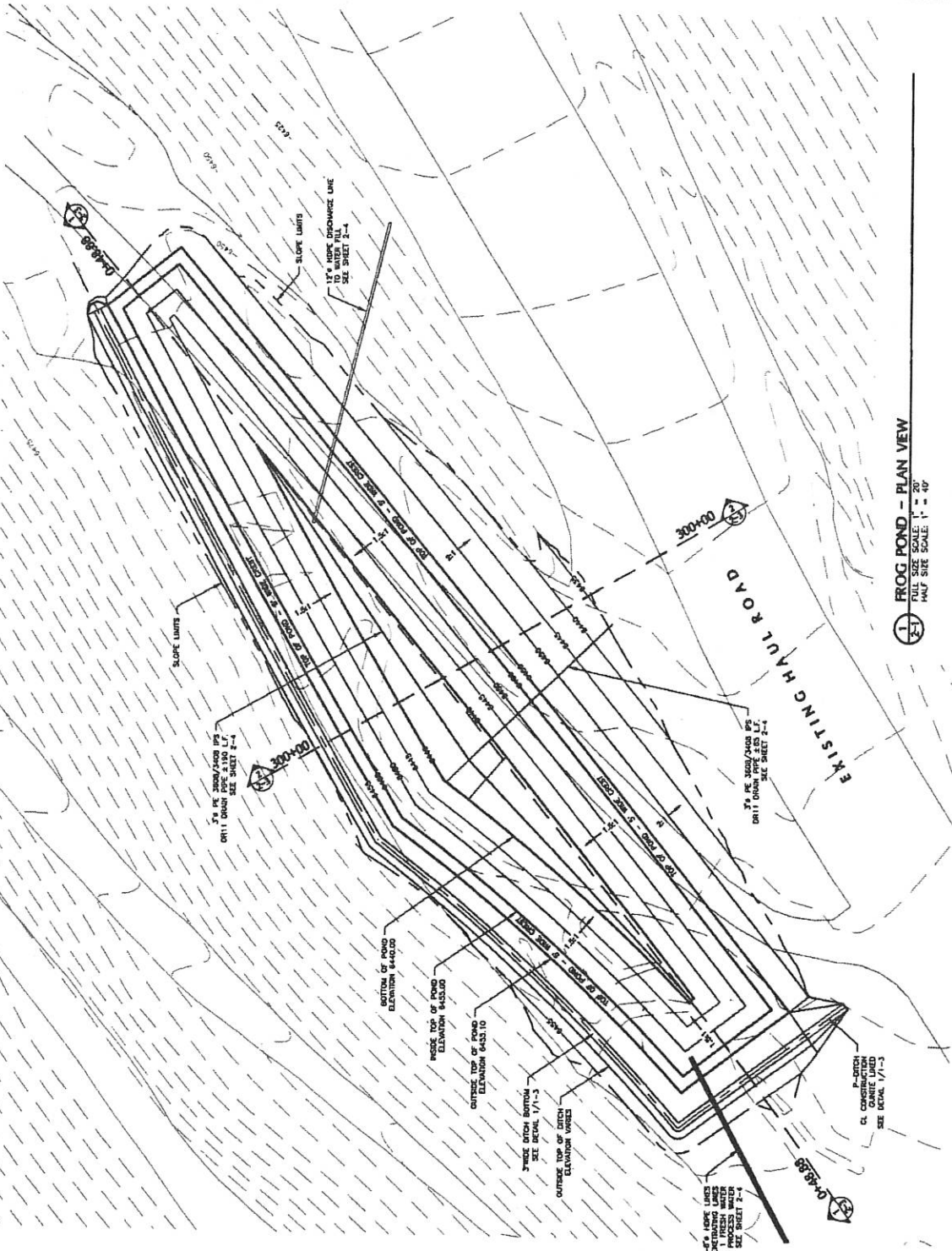
| Storage Capacity (Without FIB) | | |
|--------------------------------|-------------------|---------------------|
| Minimum Elevation | Maximum Elevation | Volume (cubic feet) |
| 8440.00 | 8450.00 | 1.05 Million |

| Earthwork Quantities | | |
|-------------------------------|--------------------------------|----------------------------|
| Adjusted Cut Volume (cu. yd.) | Adjusted Fill Volume (cu. yd.) | Adjusted FIB Vol (cu. yd.) |
| 2058.03 | 0783.10 | |



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|--|-------------------------------|------|----|
| NO. | DESCRIPTION | DATE | BY |
| | REVISIONS (OR CHANGE NOTICES) | | |
| ENGINEERS INC | | | |
| 211 N. CALIFORNIA AVE. SUITE 200 BIRMINGHAM, AL 35203-4472 (205) 988-1111 FAX (205) 988-1112 | | | |
| SHEET TITLE | | | |
| FROG POND RELOCATION PLAN VIEW | | | |

SHEET NO. 2-1



PROJECT NO. FRT500P

DATE: 2/7/2014 11:32 AM

DESIGN TITLE

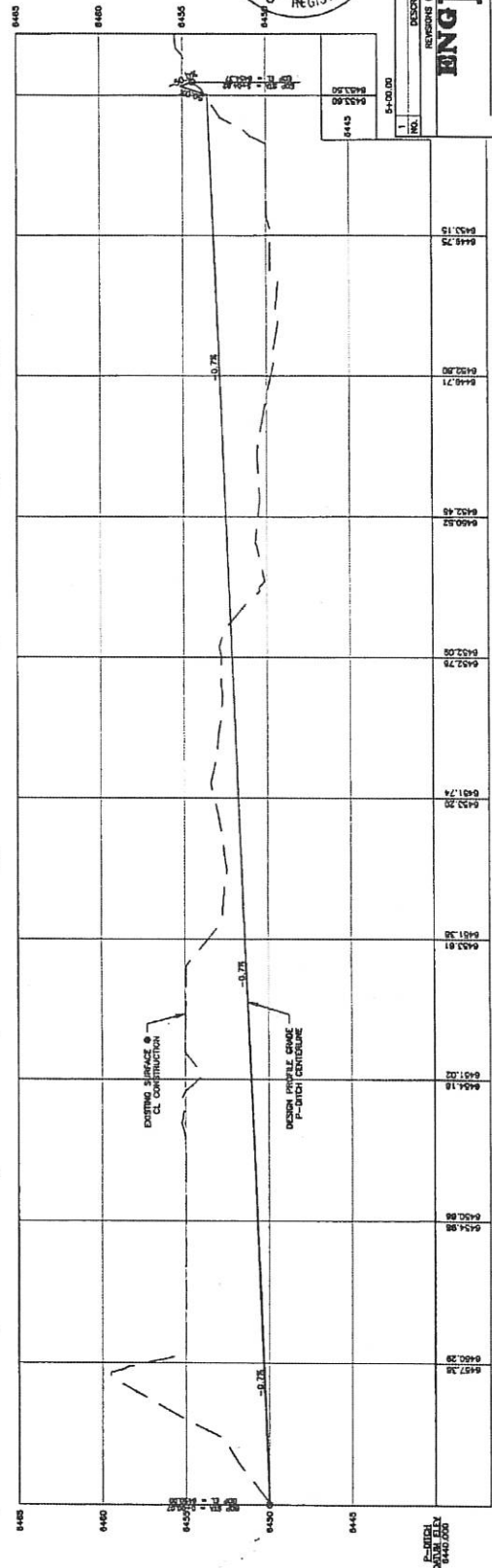
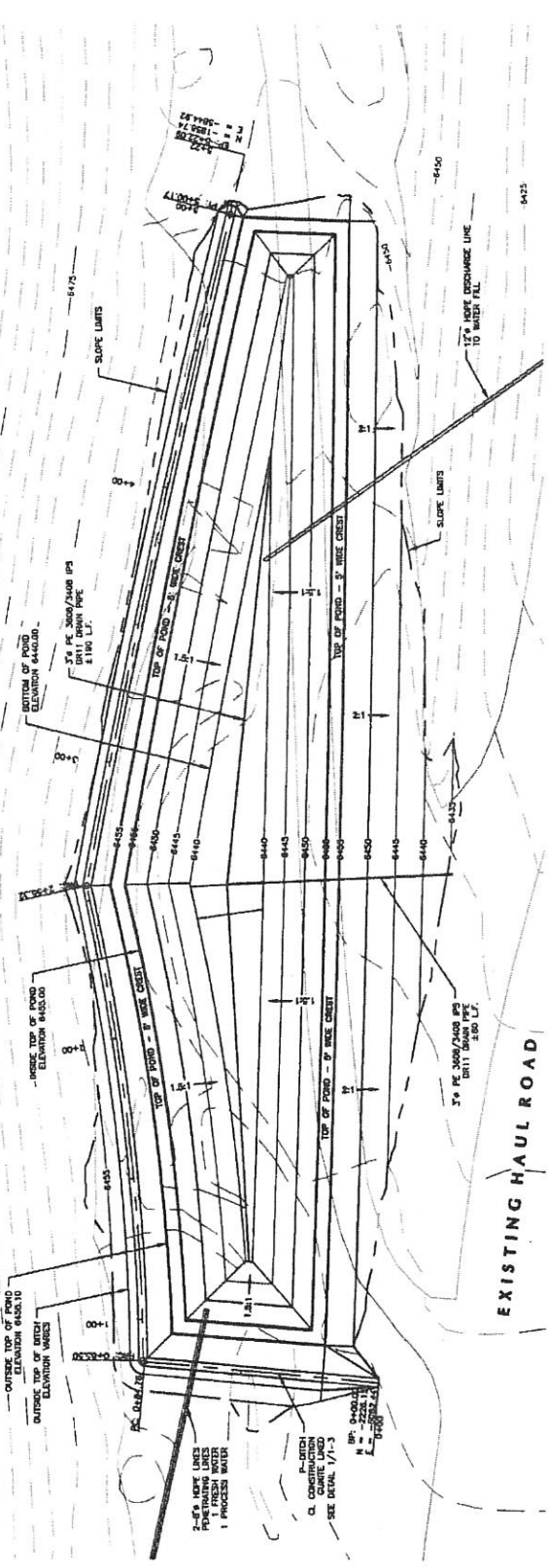
DATE: 2/7/2014 11:32 AM

PROJECT NO. FRT500P

DESIGN TITLE

PROJECT: FREEPORT-MACDONALD OIL SANDS POND FILL RELOCATION

FULL SIZE SHEET SCALES:
 1" = 20' HOR
 1" = 10' VERT
 HALF SIZE SHEET SCALES:
 1" = 40' HOR
 1" = 20' VERT



ENGINEERS INC.

| NO. | DESCRIPTION | DATE | BY |
|-----|--------------------------------|------|----|
| 1 | REVISIONS (SEE CHANGE NOTICES) | | |

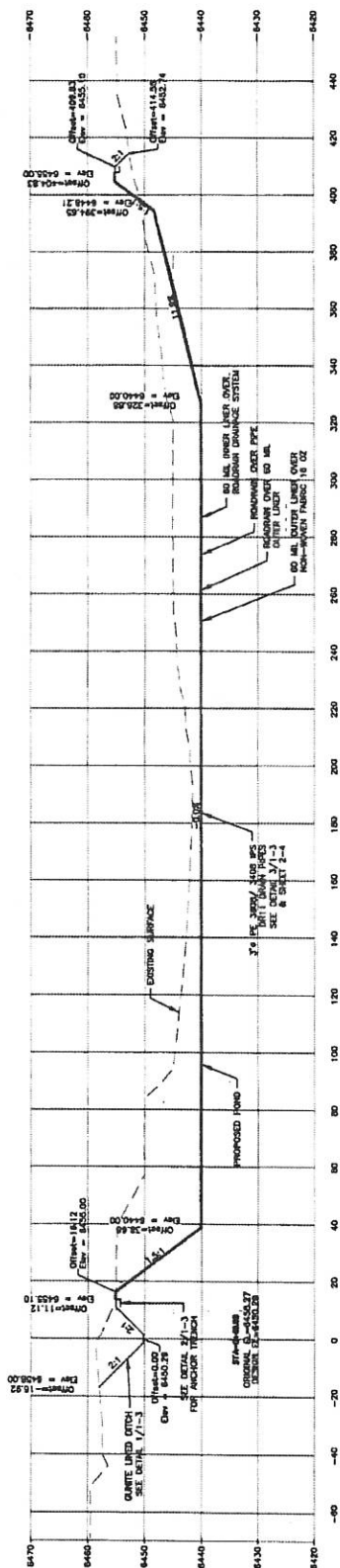
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SHEET NO. 1-1

PROJECT NO. 101308P

DESIGN FILE


DATE: 7/7/04 11:25 AM

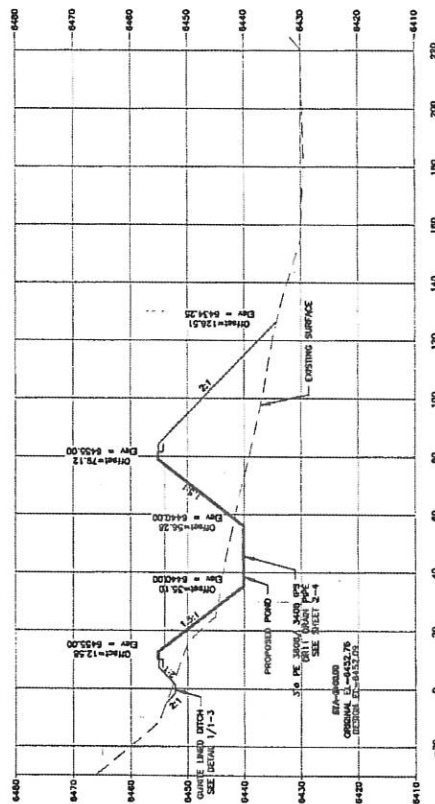


FROG POND - LONGITUDINAL SECTION VIEW

FULL SIZE SCALE: 1" = 20'
HALF SIZE SCALE: 1" = 40'



| | | | | |
|---|-----|---------------------------|------|----|
| 1 | NO. | DESCRIPTION | DATE | BY |
| | | REWORKS (ON CHANGE WORKS) | | |
|  <h1 style="margin: 0;">ENG'NERS INC.</h1> | | | | |
| 201 N. CALLEJA 100 SUITE 100 BILLYE CITY, MO 65001-0001 (PH) 656-4444 (FAX) 656-4444 | | | | |
| SHEET TITLE: | | | | |
| <h2 style="margin: 0;">FROG POND</h2> <h2 style="margin: 0;">SECTION VIEWS</h2> | | | | |

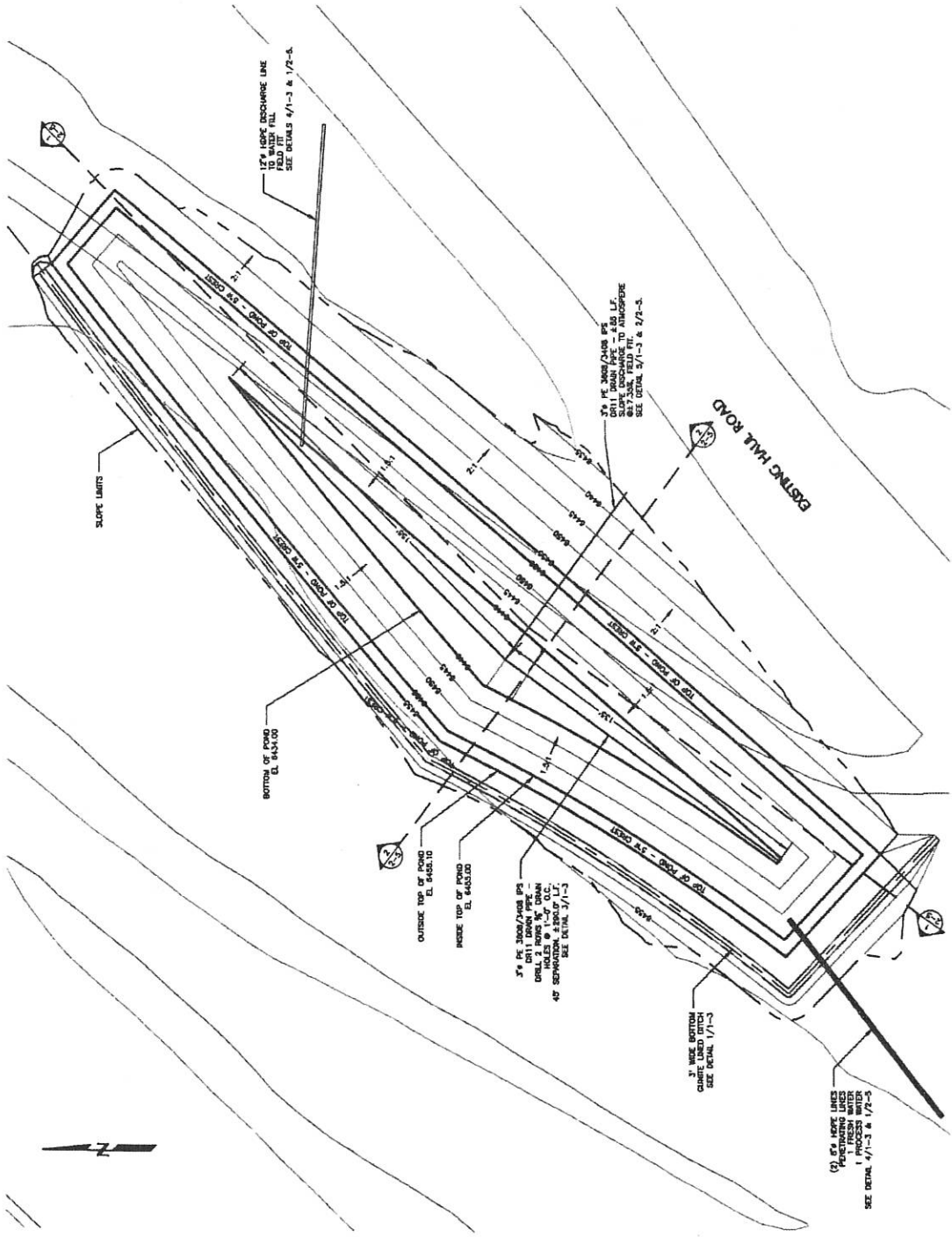


TROG POND - TRANSVERSE SECTION VIEW

ALL SIZE SCALE: 1" = 20'
ALL SIZE SCALE: 1" = 40'

Figure 1

PROJECT: FREEPORT-MCMURAN OWNED MINES FROG POND RELOCATION



1 FROG POND - PFE NETWORK PLAN VIEW

HALF SIZE SCALE: 1" = 50'
FULL SIZE SCALE: 1" = 10'



| | | | |
|-----|-----------------------------|------|----|
| NO. | DESCRIPTION | DATE | BY |
| | REVISIONS (OR CHANGE NOTES) | | |

ENGINEERS INC

REGISTERED PROFESSIONAL ENGINEER

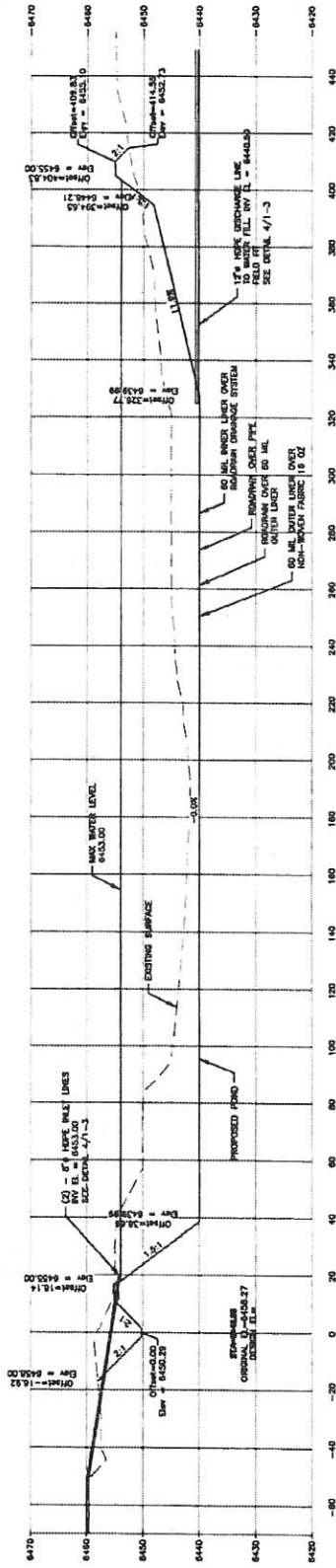
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PLAN VIEW - PFE NETWORK

DATE: 11/28/14 2:54 PM

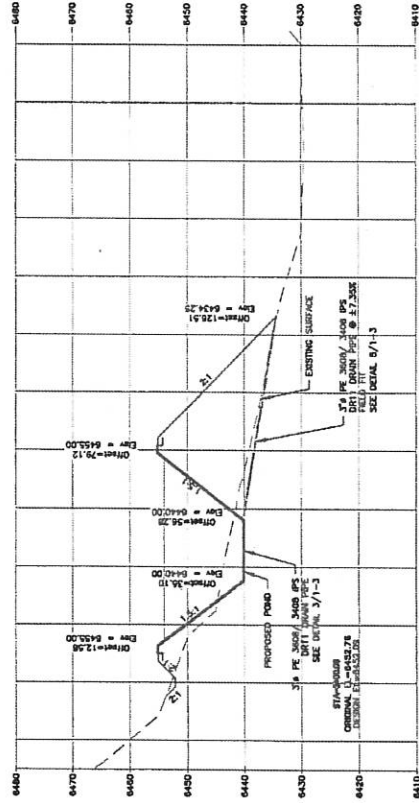
DESIGN FILE: PROJECT NO. 171000

SHEET NO. 2-4

PROJECT: FROST-MANOR, CHINA WILKS FROG POND REDUCION



1 FROG POND - PIPE NETWORK LONGITUDINAL SECTION VIEW
FULL SITE SCALE: 1" = 20'
HALF SITE SCALE: 1" = 40'



2 FROG POND - PIPE NETWORK TRANSVERSE SECTION VIEW
FULL SITE SCALE: 1" = 20'
HALF SITE SCALE: 1" = 40'



| | | | |
|-----|-------------------------------|------|----|
| NO. | REVISION | DATE | BY |
| 1 | REVISIONS (OR CHANGE NOTICES) | | |

ENGINEERS Inc

10181
REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE:
FROG POND
DRAIN PIPE SECTION VIEWS

DATE: 7/7/2014 13:47 PM
PROJECT NO: 741306P
DESIGN FILE



P. O. Drawer 571, Tyrone, New Mexico 86065 • (505) 538-5331

February 22, 2006

Certified Mail #70051820000773755104
Return Receipt Requested

Mr. Clint Marshall
New Mexico Environment Department
Ground Water Quality Bureau
P. O. Box 26110
Santa Fe, New Mexico 87502-6110

FEB 27 2006

Dear Mr. Marshall:

Re: Discharge Permit DP-670 -- East Main Pit Leach System Amendment Request

Phelps Dodge Tyrone, Inc. (Tyrone) requests that the New Mexico Environment Department (NMED) amend DP-670 to incorporate additional facilities. The following is a list those facilities that Tyrone seeks to incorporate into DP-670. Included in this list is a brief description of each facility.

1. Savanna Sediment Collection Pond - This pond is lined with a 60-mil HDPE liner material over a 12 gauge geotextile fabric measuring approximately 25 feet x 40 feet at the top with sides sloped at 2:1 to a depth of 4 feet. This pond is located adjacent to and upgradient from the Savanna Pit Collection Sump.
2. Savanna North Sump - The physical bottom of the Savanna Pit constitutes a collection sump for ground water inflow, incidental meteoric storm water, and water from the Savanna Sediment Collection Pond, referenced above.
3. Pumps and Piping - A portable floating barge pump located in the Savanna North Sump and a six inch pipeline serve to transport solutions from the pit bottom to the collection sump as shown on the attached figure. From this point, solutions are pumped by another portable pump through a six inch pipeline that discharges to the Savanna South Sump. Tyrone is using portable pumps at these locations to allow flexible operation of the system. The Savanna Pump, which is a permanent pump, delivers solutions from the Savanna South Sump to the No. 2 PLS pond.

Please feel free to contact Mr. Patrick John at (505) 538-7206, if you have any questions concerning this report.

Very truly yours,

E. L. (Ned) Hall, Manager
Environment, Land & Water
New Mexico Operations

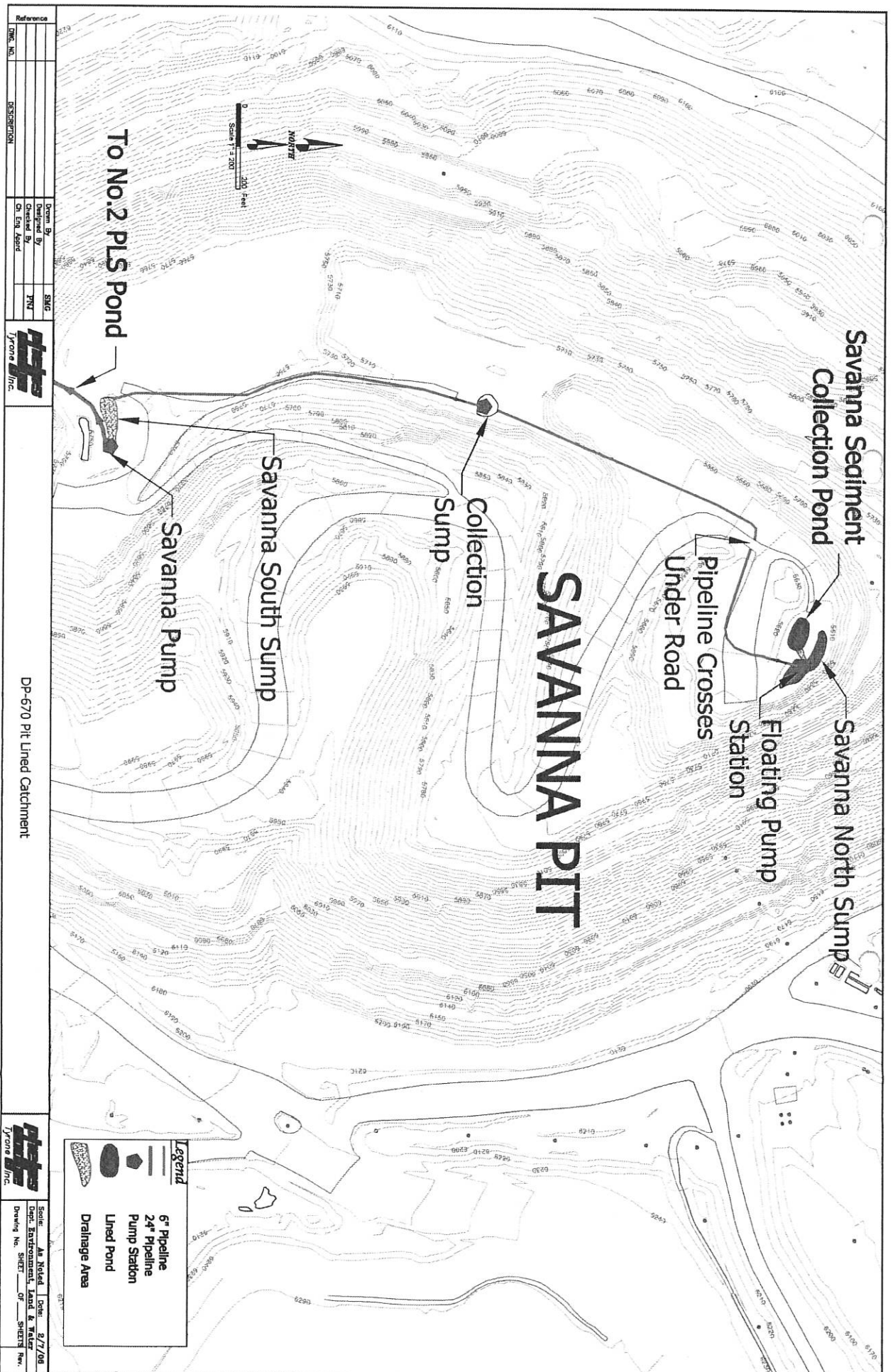
ELH:pj
Attachment
20060222-100
c George Llewellyn, NMED

4184

EXHIBIT

F9

5010000





BILL RICHARDSON
GOVERNOR

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



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Richard Mohr, General

Chino Mines Company

210 Cortez St.

Hurley, New Mexico

City, State, ZIP+4

PS Form 3800, June 2002

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 16, 2005

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

RE: Discharge Permit Renewal and Modification, Ivanhoe Concentrator and Associated Pipelines DP-213

Dear Mr. Mohr:

The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit, DP-213 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, including 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 **June 16, 2010**. You must submit an application for renewal at least 120 days before the permit expiration date.



Richard Mohr, DP-213

June 16, 2005

Page 2 of 2

Thank you for your cooperation during the discharge permit review. If you have any questions please contact Thaddeus Kostrubala at (505)827-2906.

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-213 (1)

**DISCHARGE PERMIT RENEWAL AND MODIFICATION
CHINO MINES COMPANY, DP-213
IVANHOE CONCENTRATOR AND ASSOCIATED PIPELINES
June 16, 2005**

I. INTRODUCTION

The New Mexico Environment Department (NMED) renews and modifies this Discharge Permit, DP-213, 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 DP-213, and in imposing the requirements and conditions specified herein, is to control discharges of water contaminants from the Ivanhoe Concentrator and associated pipelines 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 a 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-213 addresses the Ivanhoe Concentrator, three tailing pipelines, one process water pipeline, one concentrate pipeline and associated infrastructure. The facilities are located approximately 15 miles east of Silver City and adjacent to the towns of Bayard and Hurley in Sections 32 and 33, T17S, R12W; Sections 5, 6, 7, 18, 19, 30, 31 and 32, T18S, R12W; and Sections 5, 6 and 7, T19S, R12W in Grant County.

The permit modifications included in this renewal are as follows:

- An increase in the maximum flow rate through the process water pipeline from 13 million gallons per day to 18 million gallons per day;
- An increase of the maximum flow rate through the concentrate pipeline from 237,600 gallons per day to 600,000 gallons per day;
- Implementation of Pipeline Operational Protocols as described in the Settlement Agreement and Stipulated Final Order signed on August 1, 2003.

Activities that Produce the Discharge and Location:

Ore from the Santa Rita open pit copper mine is concentrated using a copper and molybdenum flotation process at the Ivanhoe Concentrator. The copper concentrate slurry from the mill is conveyed to the Hurley Smelter via a single pipeline. The molybdenum concentrates produced at the concentrator are packaged for additional off-site processing. The thickened tailings, produced as a by-product from the flotation process, are conveyed via the tailings pipelines to a termination tank located approximately seven miles to the south on top of Tailing Pond 4.

The tailings slurry is transported utilizing three urethane-lined steel pipelines known as the West Train, the East Train and the Spare Train. The West Train and the Spare Train pipelines require replacement prior to additional long-term use. Decanted water from the tailings facility is

Chino Mines Company, DP-213

June 16, 2005

Page 2

pumped to Axilflo Lake and is eventually returned as process water to the concentrator facility through a high density polyethylene (HDPE) lined steel pipeline.

All five pipelines covered under DP-213 follow the same general path: from the concentrator, through Bayard Canyon and along the east side of Bayard and Hurley, adjacent to Whitewater creek. The process water pipeline and the concentrate pipeline terminate at the Hurley Smelter and the three tailings pipelines continue for another two miles to the termination tank at Pond 4.

Quantity, Quality and Flow Characteristics of the Discharge:

Tailings Pipelines: The tailings slurry has an average solids content of 48% by weight, and ranges from 45% to 55% solids by weight. Up to 24.5 million gallons per day (gpd) of tailings slurry and 3,200 gpd of domestic waste from the Ivanhoe Concentrator are discharged through the tailings pipelines. The amount of water discharged through the tailing pipelines shall not exceed 15.6 million gallons per day. Tailings slurry water usually exceeds WQCC Regulations 20.6.2.3103.A for fluoride and selenium, 20.6.2.3103.B for sulfate and total dissolved solids (TDS) and 20.6.2.3103.C for molybdenum. The tailings slurry usually has a pH between 8 and 10.

Process Water Pipeline: Up to 18 million gpd of process water is returned to the concentrator from a 750,000-gallon holding tank at the Hurley Smelter via one 5-mile pipeline. Process water usually exceeds WQCC Regulations 20.6.2.3103.A for fluoride and selenium, 20.6.2.3103.B for iron, manganese, sulfate and TDS and 20.6.2.3103.C for molybdenum. The process water usually has a pH between 6 and 9.

Concentrate Pipeline: Up to 600,000 gpd of copper concentrate is conveyed to the Hurley Smelter via one 5-mile pipeline.

Characteristics of Ground Water:

The depth to ground water within the permit boundary ranges from approximately one foot to more than 150 feet below ground surface. Depth to ground water in the Whitewater Creek Aquifer ranges from 1 to 10 feet below the stream bed. TDS concentrations range from 300 to 1,400 milligrams per liter (mg/L). Ground water in the alluvial and bedrock aquifers within the permitted area generally flows from north to south.

General:

This Discharge Permit Renewal and Modification consists of letters and documents submitted by Chino to NMED dated, February 14, 1997, May 26, 1998, and August 20, 2003. In addition, this Discharge Permit includes information and material submitted as part of the original Discharge Permit issued on June 7, 1982, renewed on June 11, 1987, renewed and modified on October 9,

1992, amended on March 25, 1998, and renewed by Final Order dated December 18, 1998. This discharge permit also incorporates August 1, 2003 Settlement Agreement and Stipulated Final Order.

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 the 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.

The discharge shall be managed in accordance with the terms, requirements, and conditions of DP-213 and is subject to the conditions listed in Section III. This Discharge Permit Renewal and Modification 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 orders and nuisance orders.

The following abbreviations may be used in this permit:

| Abbreviation | Explanation | Abbreviation | Explanation |
|--------------|--------------------------------|--------------|-----------------------------------|
| Chino | Chino Mine Company | NMED | New Mexico Environment Department |
| gpd | Gallons per day | NMSA | New Mexico Statutes Annotated |
| HDPE | High-density polyethylene | 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 the Ivanhoe Concentrator and associated pipelines 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 the Ivanhoe Concentrator and associated pipelines so that such effluent or leachate may move into 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 Ivanhoe Concentrator and associated pipeline facilities are not subject to any of the exemptions of 20.6.2.3105 NMAC.

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 in accordance with the WQCC Regulations at 20.6.2.3106.C and 3107 NMAC to ensure compliance with 20 NMAC Chapter 6, Parts 1 and 2. Pipeline operation protocols and pipeline replacement shall be in accordance with the Settlement Agreement and stipulated Final Order dated August 1, 2003. [20.6.2.3106.C and 3107 NMAC]

Flow Description:

2. Chino is authorized to manage process flows as follows:
 - A. Up to three tailings pipelines transport tailings slurry and domestic waste from the Ivanhoe Concentrator approximately seven miles south to a distribution tank.
 - 1) The tailings pipelines are permitted to convey a maximum of 15.6 million gallons per day of tailings water, which combined with the tailings material produces a tailings slurry that shall not exceed 24.5 million gallons per day.
 - 2) The tailings pipelines are permitted to convey a maximum of 3,200 gpd of domestic waste from the Ivanhoe Concentrator domestic wastewater system.
 - B. The concentrate pipeline conveys copper concentrate from the Ivanhoe Concentrator to the Hurley Smelter.
 - 1) The concentrate pipeline is permitted to convey a maximum of 600,000 gpd of concentrate from the Ivanhoe Concentrator in the north, to the Hurley Smelter in the south.

- C. The process water pipeline conveys process water from the Hurley Smelter to the Ivanhoe Concentrator.
 - 1) Process water is permitted to be stored in a 750,000-gallon tank located at the Hurley Smelter prior to being pumped back to the Ivanhoe Concentrator.
 - 2) The process water pipeline is permitted to convey a maximum of 18 million gpd from the Hurley Smelter in the south to the Ivanhoe Concentrator in the north. [20.6.2.3106, 20.6.2.3109 NMAC]

Ivanhoe Concentrator Area:

- 3. Chino shall handle all concentrate on impermeable surfaces and keep it protected from storm water run-off and run-on. [20.6.2.3106 NMAC]

Pipeline operation:

- 4. Chino shall set the leak detection system at the following levels at all times that the pipeline is in operation:
 - A. For the West Train, East Train and the Spare Train, the leak detection system shall be set at a maximum of 160 gallons per minute;
 - B. For the process water pipeline, the leak detection system shall be set at a maximum of 100 gallons per minute; and
 - C. The required levels for the leak detection systems may only be adjusted with NMED approval. [20.6.2.3107 NMAC]
- 5. Chino shall respond to all alarms from the leak detection system by immediately dispatching an appropriate number of inspectors to visually inspect the pipeline and associated structures, including containment structures, for leaks. Such inspections shall be conducted within two hours of the alarm. [20.6.2.3107 NMAC]
- 6. Chino shall report the date, time, duration, and location of all false alarms from the leak detection system in the quarterly reports as described in Condition 23. [20.6.2.3107 NMAC]
- 7. In the event that the Concentrator temporarily ceases operation Chino shall notify NMED in writing within five (5) days of cessation of operation. Chino shall also notify NMED of the date of resumption of concentrator operations and the flow rate of tailings through the

pipelines not more than five (5) days following the resumption of concentrator operations.
[20.6.2.3107 NMAC]

Pipeline Replacement:

8. Chino shall replace the West Train and the Spare Train pipelines with one or more HDPE-lined steel pipelines or, if approved by NMED, pipelines composed of different materials.
[20.6.2.3106 and 20.6.2.3109 NMAC]
9. Chino shall complete construction and commence operation of the new pipeline(s) and discontinue use of the West Train and Spare Train pipelines for transport of tailings not more than eighteen (18) months after the date of resumption of concentrator operations.
[20.6.2.3106 and 20.6.2.3109 NMAC]
10. Chino may, at its discretion, forego replacement of the West Train and the Spare Train in the event that it chooses to operate the concentrator at a reduced capacity such that usage of the West Train and the Spare Train pipelines are not necessary. If Chino decides to forego such replacement, Chino shall notify NMED in writing of the date of resumption of the concentrator operations at a reduced capacity at least ten (10) days prior to such resumption. If Chino decides to forego replacement of the West Train and Spare Train pipelines, it shall not operate such pipelines or allow tailings to flow through the pipelines. [20.6.2.3106 and 20.6.2.3109 NMAC]
11. Chino shall notify NMED within ten (10) days prior to placing the replaced pipelines into operation. [20.6.2.3106 and 20.6.2.3109 NMAC]

MONITORING, REPORTING, AND OTHER REQUIREMENTS

12. Chino shall conduct the following monitoring, reporting and other requirement listed below. A summary of monitoring requirements is attached to this permit as Table 2. [20.6.2.3107 NMAC]

Pipeline Inspections:

13. During the operation of the tailing, process water or concentrate pipelines, Chino shall conduct inspections along the entire length from the concentrator to the termination tank. Inspections shall be conducted by radio-equipped patrols at least twice per eight-hour shift. Inspections shall be required when one or more of the pipelines containing tailings, concentrate or process water is in service, or as required by NMED. Inspections will not be required if the pipelines have been flushed and taken out of service. [20.6.2.3107 NMAC]

14. Upon start up of any of the pipelines, Chino shall visually inspect that pipeline and all associated structures. Chino shall also perform pressure tests on each pipeline prior to being put back into service to ensure that the line has maintained its integrity during the shut down period. [20.6.2.3107 NMAC]
15. Prior to the operation of any of the pipelines, Chino shall conduct a visual inspection of the pipeline spill containment structures to ensure they have maintained their integrity during the shut down period. Any containment structure that has been damaged shall be repaired prior to the operation of the pipelines. Each containment structure must have the capacity to contain a spill of at least 50,000 gallons of tailings slurry or process water. [20.6.2.3107 NMAC]
16. During operation of the tailings, process water or concentrate pipelines, the pipeline spill containment system will be inspected after each significant rain event (0.5 inches or greater over 24 hours). Inspections shall be required when one or more of the pipelines containing tailings, concentrate or process water is in service, or as required by NMED. High rainfall event containment system inspections will not be required if the pipelines have been flushed and taken out of service. [20.6.2.3107 NMAC]
17. During the operation of the concentrate, tailings or process water pipelines, Chino shall inspect the pipeline containment system every quarter for erosion or deterioration or any condition which may affect the proper functioning of the containment structures; and Chino shall make any necessary repairs to the containment structures to ensure proper containment within 7 days of identification of the need to repair the structures. Containment system inspections and repairs will be required when one or more of the pipelines are in service. Containment system inspections and repairs will not be required if the pipelines have been flushed and the concentrator and the pipelines have been shut down. [20.6.2.3107 NMAC]

Sampling and Field Measurements:

18. Ground Water Monitoring Wells: Chino shall monitor water depth and ground water quality from monitoring wells 213-99-01, 213-99-02a and 213-99-02b as follows:
 - A. Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft) in all wells, semi-annually by March 1st and September 1st of each year.
 - B. Samples shall be collected from well 213-99-01 quarterly and analyzed for the parameters listed in Conditions 22A and 22B below.
 - C. In addition, the samples shall be collected from well 213-99-01 and analyzed for the organic parameters, annually by March 1st, listed in Condition 22C, 22D and 22E below.

- D. Analytical results and depth to ground water measurements shall be reported as required in Condition 24 below. [20.6.2.3107 NMAC]
19. Process Water Samples: Chino shall collect process water samples from the 750,000 gallon tank at the Hurley Smelter as follows:
- A. Samples shall be collected quarterly and analyzed for the parameters listed in Conditions 22A, 22B, 22C and 22D.
 - B. Analytical results shall be reported as required in Condition 24 below. [20.6.2.3107 NMAC]
20. Tailings Slurry Samples: Chino shall collect tailings slurry samples for tailings slurry water and tailings slurry solids from one of the tailings pipelines as follows:
- A. Tailings slurry water samples shall be collected quarterly and analyzed for the parameters listed in Conditions 22A, 22B, 22C and 22D.
 - B. Tailings slurry solids samples shall be collected quarterly and analyzed for acid-base accounting, acid generating potential, acid neutralizing potential, paste pH and for total and leachable (SPLP) concentrations of the following analytes: Al, As, Ba, Ca, Cd, Cl, Cr, Co, Cu, F, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Na, V, and Zn.
 - C. Analytical results shall be reported as required in Condition 24 below. [20.6.2.3107 NMAC]
21. Flow Measurements – Chino shall measure average daily flows using appropriate metering devices for the following discharges:
- A. Volume of tailings slurry pumped to the tailings ponds;
 - B. Volume of concentrate slurry pumped to the smelter;
 - C. Estimate of the monthly volume of domestic waste originating from the Ivanhoe Concentrator and surrounding facilities discharged to the tailings pipelines; and,
 - D. Volume of process water pumped from the 750,000-gallon tank to the concentrator.
- Flow measurements shall be reported on a quarterly basis as required in Condition 24 below. [20.6.2.3107 NMAC]

Analysis:

22. Chino shall analyze water and ground water samples for the parameters 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: alkalinity (HCO_3 , CO_3), calcium, magnesium, sodium, potassium, fluoride and chloride.
- D. Metals parameters: aluminum, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, selenium, and zinc.
- E. Organics: kerosene, benzene, total polynuclear aromatic hydrocarbons (PAHs), and total petroleum hydrocarbons (TPH).

Methodology:

23. 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.B NMAC]

Reporting:

24. Chino shall submit to NMED quarterly reports by January 31st, April 30th, July 31st and October 31st of each year and shall use the following format:
- 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 a single event shown in columns. Tabulated electrical conductivity will include the measured field values and corrected values to 25 degrees Celsius. Monitoring 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 shall 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.
 - B. The report shall include a table showing water level data for all applicable monitoring wells and surface impoundments 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 shall be presented in bold text.
 - C. Copies of the original laboratory data sheets.
 - D. A brief written summary of all activities related to the discharge conducted during the preceding three months. This may include operational activities, monthly flow volumes, spills, maintenance, repairs, well drilling, water management, construction or demolition of structures, water quality trends, precipitation and trends in water levels. False alarms related to the pipeline leak detection system, including time, date, location and duration, shall also be discussed in the quarterly reports. [20.6.2.3107 NMAC]
 - E. Copies of all pipeline leak detection logsheets and pipeline inspection logsheets and summary information sheets summarizing leak detection and inspection activities and results.

ABATEMENT

Abatement Plan Required:

25. 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 DP-213 and define the extent and 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 address selection of an abatement option to abate ground water contamination in the shortest reasonable timeframe and shall include an analysis of abatement alternatives pursuant to 20.6.2.4106.E.2 NMAC. [20.6.2.3109.E and 20.6.2.4000 through 20.6.2.4115]

CONTINGENCY PLAN

Ground Water Exceedances:

26. In the event that monitoring indicates ground water standards are exceeded during the term of the Discharge Permit, or the extent and magnitude of existing 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 contamination, Chino shall submit a plan to NMED to abate ground water 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 & E, 4107 and 4112 NMAC. The abatement plan shall be implemented within 30 days of NMED approval. [20.6.2.3107.A(10) NMAC]

Spill Contingency:

27. In the event of a spill or release that is not authorized 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 action 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 20.6.2.2103.A.1 NMAC. Within 7 days of discovering the discharge, Chino shall submit a written report to NMED verifying the 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]
28. Concentrator – The Ivanhoe concentrator is underlain by a concrete floor and associated sumps. Any spill that occurs at the concentrator facility shall be collected in the concrete sumps and returned to the process circuit system. [20.6.2.3106 NMAC]
29. Tailing Thickeners – If a spill or a failure of tailings thickeners is identified, discharge to the affected thickener shall cease. If tailings material overtops the thickener secondary containment system, including the sump and berms, the discharge shall be reported to NMED within 24 hours and corrective action measures shall be taken. Reservoir 17 shall be used to contain a potentially large spill from the thickeners. Spills contained in Reservoir 17 shall be pumped back to the Tailing Thickeners immediately upon resuming operations at the Tailing

Thickeners. [20.6.2.3107 and 1203 NMAC]

30. Pipelines – All pipeline spills shall be reported in accordance with 20.6.2.1203 NMAC. Chino shall take actions pursuant to 20.6.2.1203 NMAC to minimize the impact to water quality from any spills by removing any visible traces of solid tailings material, entrained fluids and contaminated soils. All removed material will be disposed of on Tailings Pond 1. The extent and clean up of spilled materials will be thoroughly documented through photographs, truck haulage records and field notes. This documentation shall be submitted to NMED pursuant to 20.6.2.1203 NMAC. [20.6.2.3107 & 1203 NMAC]
31. In the event of a tailings spill, Chino shall analyze the spilled tailing solids and associated tailings slurry water for the parameters listed in Conditions 22A, 22B and 22C. The tailing solids shall be analyzed for aluminum, arsenic, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel and zinc. Spills of other substances may require sampling for additional parameters as determined by NMED. Analytical results from the sample will be included in a Corrective Action Report to be submitted as required in 20.6.2.1203 NMAC. [20.6.2.3107 & 1203 NMAC]
32. If a spill of 20,000 gallons or greater enters Whitewater Creek, Chino will use monitoring wells located along Whitewater Creek for monitoring potential impacts to ground water. Chino shall sample the nearest upgradient and downgradient monitoring wells immediately after the spill, or as NMED determines, in response the Corrective Action Report required pursuant to 20.6.2.1203. [20.6.2.3107 & 1203 NMAC]

Operational Failures:

33. In the event of a pipeline break, pump failure, pond overflow or other system failure at the facility, the materials that are released shall be contained, pumped and/or transferred to areas of the facility that impose minimal impacts to ground water quality pursuant to the April 1998 Emergency Response Plan or its most recent version. Failed components shall be repaired, replaced or temporarily replaced with an interim remedy as soon as possible and no later than 72 hours from the time of failure. [20.6.2.3107.A.10 NMAC]
34. If NMED or Chino identifies any other failures of the Discharge Plan or system not specifically noted in this permit, NMED may require Chino to develop for NMED approval, contingency plans and schedules to address failures. [20.6.2.3107.A.10 NMAC]

CLOSURE

35. Chino shall maintain a closure plan for the Ivanhoe Concentrator, the tailings pipelines, the process water pipeline, the concentrate pipeline, and associated infrastructure, pursuant to the conditions of DP-1340, the Supplemental Discharge Permit for Closure. In the event that

Chino modifies or expands facilities covered under DP-213 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

36. Pursuant to the Supplemental Discharge Permit for Closure, DP-1340, Chino shall maintain financial assurance in an amount sufficient to cover the cost of all required closure activities for the Ivanhoe Concentrator, the tailings pipelines, the process water pipeline, the concentrate line and associated infrastructure. In the event Chino modifies or expands facilities covered under DP-213, Chino shall propose changes to the financial assurance accordingly. [20.6.2.3107.A (11) NMAC]

GENERAL TERMS AND CONDITIONS

Record Keeping:

37. Chino shall maintain at its facility a written record of all data and information on the monitoring of ground water, surface water, and seepage 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.A NMAC]
38. Such data and information shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples. [20.6.2.3107.A NMAC]

39. 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]
40. 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 the permitted area. [20.6.2.3107.A NMAC]
41. 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, 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]
42. 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

43. 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 Chino's premises or at another location where records are kept under the conditions of this Discharge Permit or under 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, under any Federal or WQCC regulation.
 - c. Inspect any facility, equipment (including monitoring and control equipment or treatment works), practices or operations regulated or required under this Discharge Permit, or under Federal or WQCC regulation.
 - 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 discharge. [20.6.2.3107D NMAC] [74-6-9.B&E WQA]

44. 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

45. 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. [20.6.2.3107D NMAC][74-6-9.B&E WQA]
46. 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. [20.6.2.3107D NMAC][74-6-9.B&E WQA]

Spills, Leaks and Other Unauthorized Discharges

47. This Discharge Permit authorizes only those discharges specified herein. Any discharge into ground water not authorized by this Discharge Permit or any other Chino DP 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 [20.6.2.1203 NMAC].

Modifications/Amendments

48. Chino shall notify NMED of any changes to its tailings, concentrate, or wastewater collection or disposal systems, including any changes in flow rates or the volume of 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 discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit. [20.6.2.3107(C) NMAC]

Enforcement

49. 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. Pursuant to the Settlement Agreement and Stipulated Final Order, penalties will be applied for violations of pipeline operations, pipeline replacement and spill requirements. [74-6 WQA]

Compliance with Other Laws

50. 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. [20.6.2 NMAC]

Liability

51. The approval of this Discharge Permit does not relieve Chino of liability should the operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations [20.6.2.3109 NMAC].

Right to Appeal

52. 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

53. 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]

Chino Mines Company, DP-213
June 16, 2005
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Term

54. 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 sixteenth day of June, 2005

A handwritten signature in dark ink, appearing to read "William C. Olson", is written over a horizontal line.

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 Mines Company, DP-213

June 16, 2005

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**CHINO IVANHOE CONCENTRATOR AND ASSOCIATED PIPELINES
DP-213, 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 |
|---------------------------|----------------------------|-----------------|--|
| 2 | 2 | 3 | W – Water levels semiannually. |
| 4 | 4 | 3 | A – pH, Specific Conductance and Temperature. B – Tabulated data and signed lab sheets for sulfate (SO ₄) and TDS. C – Tabulated data and signed lab sheets for Alk-HCO ₃ , alk- CO ₃ , Ca, Mg, Na, K, F and Cl. |
| 1 | 1 | 1 | D – Tabulated data and signed lab sheets for Al, As, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Mo, Mn, Ni, Se and Zn. |
| 4 | 4 | 2 | D – Tabulated data and signed lab sheets for Al, As, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Mo, Mn, Ni, Se and Zn. |
| 4 | 4 | 1 | Tailings slurry solids semiannual analysis reported as tabulated data with signed lab sheets for acid-base accounting, acid generating potential, acid neutralizing potential, paste pH, total and leachable (SPLP) concentrations of the following analytes: Al, As, Ba, Ca, Cd, Cl, Cr, Co, Cu, F, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Na, V, and Zn. |
| 1 | 1 | 1 | E – Tabulated data and signed lab sheets for organics: kerosene, benzene, total polynuclear aromatic hydrocarbons (PAHs), and total petroleum hydrocarbons (TPH). |
| 365 | 4 | 3 | Daily average volumetric flow of tailings slurry pumped to pipelines. Daily average volumetric flow of concentrate slurry pumped to the smelter. Daily average volumetric flow of process water pumped from the 750,000-gal tank to the concentrator. |
| 12 | 4 | 1 | Monthly volume estimate of domestic waste originating from the Ivanhoe Concentrator and surrounding facilities discharged to the tailings pipelines. |

Table 2: Monitoring Schedule

| Area | Locations | Sampling | | | | | Notes |
|------|------------------------|----------|---------|-----------|---------------|----------|---|
| | | type | Monthly | Quarterly | Semi-Annually | Annually | |
| 1. | 213-99-01 | mw | | A,B | W | C,D,E | |
| 2. | 213-99-02a, 213-99-02b | mw | | | W | | |
| 3. | 750,000 gal Tank | pw | | A,B,C,D | | | |
| 4. | Tailings Slurry Water | ts | | A,B,C,D | | | |
| 5. | Tailings Slurry Solids | ts | | See notes | | | Acid-base accounting, acid generating potential, acid neutralizing potential, paste pH, total and leachable (SPLP) concentrations of the following analytes: Al, AS, Ba, Ca, Cd, Cl, Cr, Co, Cu, F, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Na, V, and Zn. |

Chino Mines Company, DP-213

June 16, 2005

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Explanation to Abbreviations and Symbols

| | |
|--|---|
| <u>Type:</u> mw = monitoring well pw = process water sw = surface water ts = tailings slurry sp = seep | <u>Sampling Quarters:</u> Q1 = Jan-Mar Q2 = Apr-Jun Q3 = Jul-Sep Q4 = Oct-Dec |
| <u>Sampling Analytical Suites:</u> 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, Ni, Se and Zn E = Organics: kerosene, benzene, total polynuclear aromatic hydrocarbons (PAHs), and total petroleum hydrocarbons (TPH) W = Depth to water measurement to the nearest 0.01 foot. | |



BILL RICHARDSON
GOVERNOR

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
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Richard Mohr, General Manager
P.O. Box 7
Chino Mines Co.
210 Cortez St.
Hurley, NM 88043
PS Form 3800, June 2002

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 14, 2004

Mailed 5/27/04

Richard Mohr, General Manager
P.O. Box 7
Chino Mines Company
210 Cortez St.
Hurley, NM 88043

RE: Discharge Permit Renewal and Modification, Lampbright Leach System, DP-376

Dear Mr. Fenn:

The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit, DP-376 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.

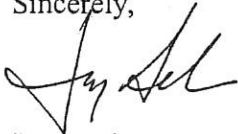
Pursuant to 20.6.2.3109.H.4 NMAC, the term of the Discharge Permit shall be five years from the date of issuance and will expire on **May 14, 2009**. You must submit an application for renewal at least 120 days before the permit expiration date.



Richard Mohr, DP-376
page 2

May 14, 2004

Sincerely,



Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:MAM:clm/kcm

enc:

- 1) Discharge Permit

cc: William Van Dran, CEGEP (1)
Allyson Siwik, GRIP (1)
NMED Silver City Field Office (1)
Mary Ann Menetrey, Program Manager, MECS-GWQB (1)
Karen Garcia, Chief, Mine Regulatory Bureau
DP-376 (1)

GROUND WATER DISCHARGE PERMIT
Lampbright Leach System, DP-376

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit, DP-376 to Chino Mines Company (permittee) 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.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from the Lampbright Leach System 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 and protect public health. In issuing this Discharge Permit, NMED has determined that the requirements of 20.6.2.3109.C NMAC have been met.

DP-376, as issued in the last renewal dated October 30, 1996 for the Lampbright Leach System, is briefly described as follows:

Acidic leach solution (raffinate) may be discharged up to 26,494,560 gallons per day on the Main and South Lampbright leach ore stockpiles. Stockpiling of low grade copper ore in a tributary of Lampbright Draw began in 1973. Applying raffinate and collecting the pregnant leachate solution (PLS) to recover copper began in 1976. The Southwest Lampbright waste rock pile combined with the Main and South Lampbright leach ore stockpiles cover approximately 699 acres with the height of some piles over 500 feet. The area of disturbance for the Lampbright leach ore stockpiles may not exceed 552 acres, and the Southwest Lampbright waste rock pile may not exceed 99 acres. The Southwest Lampbright waste rock pile is not permitted to receive additional material without satisfactorily addressing stability issues with the pile and potential impacts to the adjacent pipeline. The South and Main Lampbright leach ore stockpiles may receive ore from the open pit and ore blended with Lake One material for leaching. The removal rate of Lake One Material may be up to 4,000 tons per day. The Southwest Lampbright waste rock pile is for storage of waste rock only and is not permitted to be leached. The Lampbright Leach System is located approximately 5 miles northeast of Bayard and 4 miles southeast of Hanover in Section 25, 26, 35 and 36, T17S, R12W in Grant County.

Quantity, Quality and Flow Characteristics of the Discharge:

The leach ore stockpiles and waste rock piles contain mineral sulfides which, when oxidized, generate acidic solutions. These acidic solutions react with in situ minerals, which produces acid rock drainage (ARD) and associated metals and sulfate contamination. The leach ore stockpiles also contain acidic leach solutions and residual acidity, including metals, from the leaching process that forms acidic leachate. This leachate from acid rock drainage and from the leaching process may move directly or indirectly into surface and ground water.

May 14, 2004

The regulated discharge also consists of raffinate applied on leach ore stockpiles and collection of the resultant pregnant leachate solution (PLS), which has a TDS concentration of approximately 160,000 mg/L. The raffinate and PLS contain contaminants in excess of the levels specified in the ground water quality standards under WQCC Regulations in Section 20.6.2.3103.A NMAC for cadmium, chromium, fluoride and lead; Section 20.6.2.3103.B for chloride, copper, iron, manganese, sulfate, total dissolved solids (TDS) and zinc; and Section 20.6.2.3103.C for aluminum, cobalt, and nickel. The discharge rate of raffinate on to the Main and South Lampbright leach ore stockpiles shall not exceed 26,494,560 gallons per day.

Characteristics of Ground Water:

The depth to ground water below the site ranges from approximately 5 to 125 feet and has total dissolved solids concentration of approximately 500 milligrams per liter.

Activities That Produce the Discharge:

Up to 26,494,560 gallons per day of raffinate is discharged on the unlined Main and South Lampbright leach ore stockpiles. The PLS is collected at the base of the stockpiles in lined collection systems such as Lampbright east collection pond and unlined ponds. The PLS is then transferred in pipelines or unlined ditches to the unlined Reservoir 8. From the reservoir, the PLS is pumped to the solvent extraction and electrowinning (SX/EW) plant, which is covered by a separate permit, DP-591, for processing. The cycle is completed when the raffinate is returned to the stockpiles. In addition to the leach circuit, the Southwest Lampbright waste rock pile contains sulfide minerals that generate acid when in contact with oxygen and water. The resultant acid rock drainage has the potential to degrade water quality by increasing the concentrations of metals and non metals.

General:

Chino's Discharge Plan consists of the materials submitted by Chino to NMED on June 29, 2001. The discharge shall be managed in accordance with the Discharge Plan as conditioned by this Discharge Permit.

Issuance of this Discharge Permit does not relieve Chino 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.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 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 water quality and/or abate water pollution. Permit modification may include, but is not limited

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to, lining or relining impoundments, changing discharge locations, changing waste management practices, expanding monitoring requirements, and/or implementing abatement of water pollution.

The following abbreviations may be used in this permit:

| Abbreviation | Explanation | Abbreviation | Explanation |
|--------------|-----------------------------------|--------------|----------------------------------|
| Chino | Chino Mines Company | NMSA | New Mexico Statutes Annotated |
| mg/L | milligrams per liter | PLS | Pregnant Leachate Solution |
| ml | Milliliters | TDS | total dissolved solids |
| NMAC | New Mexico Administrative Code | WQA | Water Quality Act |
| NMED | New Mexico Environment Department | WQCC | Water Quality Control Commission |

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. Chino Mines Company is discharging effluent or leachate from the Lampbright Leach System 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 Mines Company is discharging effluent or leachate from the Lampbright Leach System so that such effluent or leachate may move into ground water of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter or less of total dissolved solids within the meaning of 20.6.2.3101.A NMAC.
3. The discharge from the Lampbright Leach System is not subject to any of the exemptions of 20.6.2.3105 NMAC.

III. PERMIT CONDITIONS

The following conditions shall be complied with by Chino Mines Company and are enforceable by NMED. Chino Mines Company is permitted to discharge water contaminants subject to the following conditions:

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OPERATIONAL PLAN

1. Chino shall implement the following operational plan in accordance with the WQCC Regulations at 20.6.2.3106.C and 3107 NMAC to ensure compliance with 20 NMAC, Chapter 6, Parts 1 and 2. [20.6.2.3106.C and 20.6.2.3107 NMAC]

Stockpile Limits:

2. Chino shall not exceed the land surface areas currently projected through year 2006 as presented in the proposed plan located in Table 5.3 from the March 2001 Closure/Closeout Plan for the Southwest Lampbriht Waste Rock Pile (99 acres); Main Lampbriht (352 acres) and South Lampbriht (202 acres). Chino shall request from NMED a modification or amendment prior to expanding beyond leach ore stockpile and waste rock pile limits beyond the 2006 projections. Chino shall provide NMED documentation on the stability of the Southwest Lampbriht waste rock pile prior to adding waste rock. [20.6.2.3106.C and 3109 NMAC]

Lake One Material:

3. Chino is authorized to place blended ore and Lake One Material on the South Lampbriht and Main Lampbriht leach ore stockpiles. [20.6.2.3106.C NMAC]

Flow Description:

Chino shall manage discharges of leach solutions as follows:

4. *Application of Acidic Leach Solution:* Chino is authorized to discharge up to 26,494,560 gallons per day of raffinate to the Lampbriht Main and South leach ore stockpiles. Leaching is only permitted on the Lampbriht Main and South leach ore stockpiles, which are located within the Lampbriht Leach System as shown in Figures 1 and 2 of the permit application dated June 29, 2001. [20.6.2.3109 NMAC]
5. *Southeast Corner of South Lampbriht Leach Ore Stockpile:* Pursuant to conclusions in a May 1996 report entitled "Phase III Groundwater Flow Modeling for Lampbriht Draw" by Woodward-Clyde Consultants, Chino shall not leach within 200 feet of the southeast corner of the South Lampbriht leach ore stockpile. [20.6.2.3109 NMAC]
6. *Reservoir 8:* Chino is authorized to operate Reservoir 8, under standard operating conditions, to collect and transfer up to 26,494,560 gallons per day of PLS at the base of the Lampbriht leach ore stockpiles and at a maximum elevation of 6135 feet above mean sea level except as described in the Emergency Response Plan. When operating the leach system at or near the maximum raffinate discharge rate, the minimum pumping capacity of Reservoir 8 shall be 24,000 gpm. In the event that Chino applies lower flow rates of raffinate, Chino

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shall maintain a pumping capacity of 25 percent greater than the raffinate application rate with a minimum pumping capacity of 5,600 gpm for storm events. [20.6.2.3109 NMAC]

7. *Lampbright East Collection Pond:* Chino is authorized to operate the Lampbright East Collection Pond to collect and transfer PLS. PLS shall be collected in a high density polyethylene (HDPE) lined pond with a floating barge pump that may transfer the PLS to Reservoir 8 or to the SX/EW. The east side seep flows at approximately 400 gpm and is also referred to as the East Lampbright Sump, which is located adjacent to monitoring well 377-00-01. [20.6.2.3109 NMAC]

Pipeline Operation:

8. Chino shall operate all PLS, raffinate and process water pipelines in a manner to prevent their discharge in areas not authorized by this DP. Upon discontinuing the operation of a pipeline or prior to moving a pipeline, all PLS, raffinate 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 to ensure residual contaminants are removed. Discharges of PLS, raffinate and process water from pipelines to 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 quarterly in accordance with Condition 21. [20.6.2.3109 NMAC]

Storm Water Management:

9. *Stormwater Retention Ponds and Collection System:* As illustrated in the Emergency Response Plan dated April 1998, stormwater shall be collected in six unlined detention ponds numbered one through six. The water collected in these ponds shall be transferred via gravity to Reservoir 8 and pumped to the SX/EW plant. Stormwater ponds 1, 2, 3, 5 and 6 collect stormwater and PLS from the South and Main Lampbright leach ore stockpiles, and Pond 4 collects stormwater runoff from the Southwest Lampbright waste rock pile. Chino shall collect and transfer stormwater in lined and unlined conveyance systems along the toe of the stockpiles. [20.6.2.3107 NMAC]
10. Within two years of the effective date of this permit, Chino shall synthetically line stormwater ponds 1, 2, 3, 4, 5 and 6; the conveyance or launder systems connecting these ponds; and the conveyance connecting the toe of the stockpile to Reservoir 8. Within 180 days of the effective date of this permit, Chino shall submit to NMED preliminary plans and specifications for the liners or pipelines or an alternative design for NMED approval. Any proposed alternative designs must prevent PLS and contaminated stormwater from infiltrating through ponds and conveyance systems into ground water. . [20.6.2.3107.A NMAC] [20.6.2.3109.E and H] [20.6.2.4000 to 20.6.2.4115 NMAC]

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11. Within three years of the effective date of this permit, Chino shall submit to NMED for approval a revised emergency response plan for water management of the Lampbriht Leach System. [20.6.2.3107.A.10 NMAC]

MONITORING AND REPORTING

12. Chino shall conduct the following monitoring, reporting and other requirements listed below. [20.6.2.3107.A NMAC]

Sampling and Field Measurements (see table 1):

13. Water Quality – In order to establish the water quality of new or existing wells that have been sampled fewer than four times, Chino shall sample the ground water monitoring wells listed in Condition 15.A quarterly for one year. Chino shall analyze the samples for the parameters listed in Condition 19B and 19C. Chino shall also measure water levels quarterly as described in Condition 15.A.1) for the monitoring wells listed in Condition 15.A. Based on the results, Chino shall propose to NMED for approval, an amended monitoring program, which recommends analytes and sampling frequencies. For new wells, Chino shall have 18 months from the well completion to submit a proposal. For existing wells, Chino shall have 18 months from the effective date of this permit to submit a proposal. [20.6.2.3107.A NMAC]
14. PLS Collection Ponds: Reservoir 8 shall be sampled as follows:
 - A. During the first year that Lampbriht leach ore stockpiles receive Lake One material blended with ore, Chino shall collect samples monthly and analyze for the water parameters listed in Conditions 19B and 19C below.
 - B. In subsequent years, Chino shall collect samples quarterly and analyze for the water parameters listed in Conditions 19B and 19C below. [20.6.2.3107.A NMAC]
15. Ground Water Monitoring Wells - Chino shall monitor ground water quality as follows:
 - A. Monitoring Wells 376-00-01, 376-00-02D, 376-00-03, 376-00-04, 376-00-05, 376-00-06, 376-00-10, 376-00-07, 376-97-01, 376-97-02 and any new wells shall be sampled as follows:
 - 1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), quarterly.
 - 2) After completing the requirements of Condition 13, Chino shall collect samples from each well quarterly and analyze for the water parameters listed in Condition 19B and 19C below until the amendment to the monitoring program under Condition 13 is approved by NMED.

May 14, 2004

- B. Monitoring Wells LB-CUT, LB-EAST, LB1, TLB23, TLB29 and 376-97-06 shall be sampled as follows:
- 1) Chino shall collect samples from wells annually and analyze for the water parameter listed in Condition 19D.
 - 2) If TPH in any well exceeds 5 mg/L, Chino shall resample the well within two weeks of receiving the analysis described in 15B.1, and analyze for the water parameters listed in Condition 19E.
- C. Monitoring Wells LB-CUT, LB-EAST, LB1, LB3, LB6, LB7S, LB7D, LB10, TLB23, TLB28, TLB29, TLB-32, TLB-33A, TLB-35A, 376-97-06, 376-97-05, 376-97-04, 376-97-03 and 376-00-08 as well as LB-2401 and the Spring below Reservoir 8 shall be sampled as follows:
- 1) Chino shall record the depth to the water table in the monitoring wells to the nearest hundredth of a foot (0.01 ft), quarterly.
 - 2) Chino shall collect samples from each well and spring quarterly and analyze for the water parameters listed in Conditions 19B and 19C below.
- D. Monitoring Wells LB2, LB4, LB5, TLB17 and TLB-34 shall be sampled as follows:
- 1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), quarterly.
 - 2) Chino shall collect samples from each well and water source quarterly and analyze for the water parameters listed in Condition 19B below.
[20.6.2.3107.A NMAC]
- E. Monitoring Wells LB6, TLB22, TLB33B, TLB35B, TLB25, TLB5, TLB6, TLB7, TLB16, TLB11, TLB10, TLB27, TLB9, TLB30, TLB31, TLB26, 376-96-01, 376-96-03, 376-96-04, 376-96-05 376-96-06 and SL-41 shall be sampled as follows:
- 1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), annually.
 - 2) Chino shall collect samples from each well annually and analyze for the water parameters listed in Conditions 19B below.

Analytical results and depth to ground water measurements shall be reported as required in Condition 21 below. [20.6.2.3107.A NMAC]

16. Storm Water – Pursuant to the emergency response plan, Chino shall inspect on a monthly basis all storm water impoundments, dikes and collection ponds for the presence of storm water accumulations that exceed designed capacities. In the event of rainfall, Chino shall ensure that the pumping capacity is adequate to maintain Reservoir 8 at or below 6135 feet

May 14, 2004

above mean sea level except as described in the emergency response plan. Chino shall sample stormwater pond 4 on a quarterly basis and analyze for the water parameters listed in Conditions 19B and 19C. The results shall be reported as required in Condition 20 below. [20.6.2.3107.A NMAC]

17. Discharge Volume – Chino shall measure the daily volume of raffinate discharged to the Main and South Lampbright leach ore stockpiles and the pumping of Reservoir 8 with a flow meter or other measuring device approved by NMED. Discharge volumes shall be reported as required in Condition 21 below. [20.6.2.3107.A NMAC]
18. Meteorological Data- Chino shall measure daily precipitation near Reservoir 8 and shall be reported as required in Condition 21 below. [20.6.2.3107.A NMAC]

Analysis:

19. Samples of surface water, storm water and process water shall be analyzed for total and dissolved concentrations of the analytes listed below. Samples of ground water, 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 specific conductance.
 - B. Indicator parameters: field parameters in Condition 19A plus sulfate and total dissolved solids (TDS).
 - C. Comprehensive inorganic parameters: alkalinity-bicarbonate, alkalinity-carbonate, calcium, magnesium, sodium, potassium, fluoride, chloride, aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel and zinc.
 - D. Organic parameters I: Total petroleum hydrocarbons (TPH).
 - E. Organic parameters II: Kerosene, Ethylbenzene, Napthalene and Toluene.
 - F. Other parameters: any other parameters such as uranium, nitrate and selenium as identified during ongoing investigations of potential source areas and as required by NMED. [20.6.2.3107.A NMAC]

Methodology:

20. 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*

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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.B NMAC]

Reporting:

- 21. Chino shall submit to NMED periodic reports. Quarterly data shall be submitted by the last day of January, April, July and October of each year; semi-annual data shall be submitted by the last day of April and October; and annual data shall be submitted by the last day January for the preceding year. The reports shall conform to the following format:
 - A. Include a summary of all activities at the facility during the preceding quarter. For example, operational activities, daily flow volumes, spills, maintenance, repairs, synopsis of completed studies relevant to the facility, well drilling, water management, construction or demolition of structures, addition of leach ore material, addition of waste rock material, addition of blended Lake One material, water quality trends, precipitation and trends in water levels. If applicable, a summary of seep and spring flows as well as potentiometric maps shall also be included.
 - B. A single table shall be provided quarterly in a paper and electronic format (EXCEL spreadsheet) of water quality data with only those constituents analyzed and water levels measured during a single event shown in columns. Tabulated electrical conductivity shall include the measured field values and corrected values to 25 degrees Celsius. Monitoring sites shall be shown in rows. Values exceeding standards shall be bolded. Any constituent not analyzed for a 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.

May 14, 2004

- C. Copies of the signed laboratory analyses sheet shall be provided quarterly. Daily volumes of acid leach solution applied to leach ore stockpiles and PLS pumped from Reservoir 8 shall be reported quarterly.
- D. Semi-annual reports shall include water quality trends, laboratory QA/QC, trends in hydrographs, potentiometric surface maps and precipitation. At a minimum, graphs with the previous 5 years of indicator parameter data shall be presented for TDS, sulfate, and hydrographs (pH may substituted for hydrographs at reservoirs or springs).
- E. Flow measurements of seeps shall be reported semi-annually with the seep location and flow estimation method noted. A clearly marked map shall be included with labeled locations for each seep area and ponded water area. The first submittal of of seeps and ponded areas shall include photos of each location indicated on the map.
- F. Chino shall submit semi-annually a potentiometric map for the intermediate aquifer in the vicinity of North Lampbright. At a minimum, the map boundary shall include the northeast corner of the Main Lampbright leach ore stockpile, monitoring well 376-97-06 on the east, monitoring well 376-97-04 on the west, new monitoring wells to be installed near LBEAST, and other monitoring wells located in the area of the ground water divide.
- G. Chino shall submit annually a potentiometric surface map of the northern area. The map may be the same as is required in DP-1340 for the northern area.
- H. Chino shall submit annually the daily precipitation data from the station near Reservoir 8. [20.6.2.3107.A NMAC]

ABATEMENT PLAN

- 22. Chino has been required to submit to NMED for approval a proposed abatement plan or plans pursuant to Condition 32 of the Supplemental Discharge Permit for Closure, DP-1340, including the site-wide abatement plan proposal and Lampbright abatement plan proposals for the North Lampbright area, TLB-33A, the spring below Reservoir 8 and any other areas that exceed state standards. 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-376 for the Lampbright Leach System, and define the extent and magnitude of ground water contamination. NMED may require an analysis of abatement alternative pursuant to 20.6.2.4106.E.2 NMAC. [20.6.2.4000 through 4115 NMAC] [20.6.2.3109.E NMAC]

May 14, 2004

CONTINGENCY PLAN

Ground Water Exceedences:

23. In the event that monitoring indicates ground water standards are exceeded, or the extent or magnitude of existing ground water contamination is significantly increasing during the term of this Discharge Permit, Chino shall collect a confirmatory sample from the monitoring well(s) within 15 days to confirm the initial sampling results. Within 30 days of confirmation of ground water contamination or significant increases in existing contamination, Chino shall submit a plan to NMED for a site investigation to define the source, nature and extent of contamination, and select and design a proposed abatement option, including an implementation schedule. The site investigation and abatement option shall be consistent with the requirements and provisions of 20.6.2.4101, 4103, 4106, 4107, and 4112 NMAC. The plan shall be implemented within 30 days of NMED approval. [20.6.2.3107(A)10 NMAC]

Operational Failures:

24. In the event of a pipeline break, pump failure, pond overflow or other system failure at the facility, the PLS and raffinate shall be contained, pumped and/or transferred to areas of the facility that impose minimal impacts to ground water quality pursuant to the April 1998 Emergency Response Plan or its most recent version. Failed components shall be repaired, replaced or temporarily replaced with an interim remedy as soon as possible and no later than 72 hours from the time of failure. [20.6.2.3107.A.10 NMAC]
25. If NMED or Chino identifies any other failures of the discharge plan or system not specifically noted in this permit, NMED may require Chino to develop for NMED approval contingency plans and schedules to address failures. [20.6.2.3107.A.10 NMAC]

Spill Reporting and Remediation:

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

May 14, 2004

CLOSURE PLAN

27. Chino shall maintain a closure plan for the entire Lampbright facility pursuant to the Supplemental Discharge Permit for Closure, DP-1340. In the event that Chino modifies or expands the Lampbright Leach System pursuant to Discharge Permit, DP-376 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

28. Chino shall maintain financial assurance pursuant to the Supplemental Discharge Permit for Closure, DP-1340, for the entire Lampbright Leach System. In the event that Chino modifies or expands the Lampbright Leach System pursuant to Discharge Permit, DP-376 in a manner that exceeds the scope of the proposed closure plan, Chino shall propose changes to the financial assurance accordingly. [20.6.2.3107.A.11 NMAC]

IV. GENERAL TERMS AND CONDITIONS

Record Keeping:

29. 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.A NMAC]
30. Such data and information shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples. [20.6.2.3107.A NMAC]
31. 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]

May 14, 2004

32. 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 the permitted area. [20.6.2.3107.A NMAC]
33. 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, 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]
34. 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:

35. Chino shall allow the Secretary or an authorized representative of NMED, upon the presentation of credentials, to:
- A. Enter at regular business hours or at other reasonable times upon Chino's premises or at any other location where records are kept under the conditions of this Discharge Permit or under any federal or WQCC Regulation.
 - B. Inspect and copy during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, or under any federal or WQCC Regulation.
 - C. Inspect, at reasonable business hours or at other reasonable times, any facility, equipment (including monitoring and control equipments or treatment works), practices or operations regulated or required under this Discharge Permit, or under any federal or WQCC regulation.
 - D. Sample or monitor at reasonable times for the purposes 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 discharge. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]
36. 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]

May 14, 2004

Duty to Provide Information:

37. 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]
38. 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:

39. This Discharge Permit authorizes only those discharges specified herein. Any discharge into ground water not authorized by this Discharge Permit is a violation of 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, as required by 20.6.2.1203. NMAC. [20.6.2.3104 NMAC, and 20.6.2.1203 NMAC]

Modifications/Amendments:

40. 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 leachate discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit. [20.6.2.3107.C NMAC, and 20.6.2.3109.E, F or G NMAC]

Enforcement:

41. 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

May 14, 2004

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. [74-6-5 WQA] [74-6-10 WQA]

Compliance with Other Laws:

42. 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. Chino does not waive any rights under such applicable federal, State, and local laws, regulations, permits, or orders except as expressly provided in this Discharge Permit. [74-6-5.K WQA]

Liability:

43. 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. [20.6.2.3109 NMAC]

Right to Appeal:

44. 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:

45. Prior to any transfer of ownership, control, or possession of the permitted facility 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:

46. Pursuant to WQA § 74-6-5.H, and § 20.6.2.3109.H NMAC, 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 WQA, and 20.6.2.3109.H NMAC]

Richard Mohr, DP-376
Page 16 of 19

May 14, 2004

ISSUED this _____ day of _____, 2004

JERRY SCHOEPPNER
Chief Ground Water Quality Bureau
New Mexico Environment Department

ISSUED: May 14, 2004
EXPIRES: May 14, 2009

May 14, 2004

**CHINO LAMPBRIGHT LEACH SYSTEM, DP-376
MONITORING SUMMARY**

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

Table 1: Reporting Summary

| Annual Sampling Frequency | Annual Reporting Frequency | Number of Sites | Sampling Description |
|---------------------------|----------------------------|-----------------|--|
| 4 | 4 | 37 | Water levels quarterly, |
| 4 | 4 | 2 | Daily volume of raffinate applied and PLS pumped from Reservoir 8 |
| 1 | 1 | 22 | Water levels annually |
| 1 | 1 | 22 | Temperature, pH, Specific Conductance, TDS and SO ₄ . |
| 4 | 4 | 15 | Temperature, pH, Specific Conductance, TDS and SO ₄ . |
| 4 | 4 | 22 | 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, Cl, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Ni and Zn. |
| 1 | 1 | 6 | TPH |
| 2 | 2 | 1 | North Lampbright Potentiometric Map |
| 1 | 1 | 1 | Northern Area Potentiometric Map |
| 2 | 2 | 59 | Hydrographs and water quality trends. |
| 2 | 2 | 4-8 (varies) | Flow measurement of seeps |
| 365 | 1 | 1 | Daily precipitation data |
| 4 | 4 | NA | Activities Report Quarterly |

Table 2 Monitoring Schedule

| Area | Locations | Sampling | | | | | | Notes |
|------------------|------------|----------|-----|-----|-----|------|-------|-------|
| Sub-Area | | type | Q1 | Q2 | Q3 | Q4 | other | |
| North Lampbright | | | | | | | | |
| Northwest | LBCUT | mw | BCW | BCW | BCW | BCDW | | |
| | 376-97-03 | mw | BCW | BCW | BCW | BCW | | |
| | 376-97-05 | mw | BCW | BCW | BCW | BCW | | |
| North | 376-97-01 | mw | BW | BW | BW | BW | | *3xBC |
| | 376-00-10 | mw | BW | BW | BW | BW | | *3xBC |
| | LBEAST | mw | BCW | BCW | BCW | BCDW | | |
| | 376-97-04 | mw | BCW | BCW | BCW | BCW | | |
| | 376-00-02S | mw | BCW | BCW | BCW | BCW | | |
| | 376-00-08 | mw | BCW | BCW | BCW | BCW | | |
| | 376-00-02D | mw | BW | BW | BW | BW | | *3xBC |
| | 376-00-03 | mw | BW | BW | BW | BW | | *3xBC |
| | 376-00-04 | mw | BW | BW | BW | BW | | *3xBC |
| | 376-00-05 | mw | BW | BW | BW | BW | | *3xBC |
| | 376-00-06 | mw | BW | BW | BW | BW | | *3xBC |
| | 376-00-07 | mw | BW | BW | BW | BW | | *3xBC |
| | 376-97-01 | mw | BW | BW | BW | BW | | *3xBC |
| | 376-97-02 | mw | BW | BW | BW | BW | | *3xBC |
| | New wells | mw | BW | BW | BW | BW | | *3xBC |
| | LB-2401 | spg | BC | BC | BC | BC | | |

May 14, 2004

| Area | Locations | Sampling | | | | | | Notes |
|---|-----------------|----------|-----|-----|-----|------|-------|------------------|
| Sub-Area | | type | Q1 | Q2 | Q3 | Q4 | other | |
| Northeast | 376-97-06 | mw | BCW | BCW | BCW | BCDW | | |
| Lampbright East and Southeast | | | | | | | | |
| Collection System | LB10 | mw | BCW | BCW | BCW | BCW | | |
| | 376-00-01 | mw | BW | BW | BW | BW | | *3xBC |
| | TLB29 | mw | BCW | BCW | BCW | BCDW | | |
| | TLB26 | mw | | | BW | | | |
| | TLB31 | mw | | | BW | | | |
| | TLB9 | mw | | | BW | | | |
| | TLB27 | mw | | | BW | | | |
| | TLB28 | mw | BCW | BCW | BCW | BCW | | |
| | SL-41 | mw | | | BW | | | |
| South Lampbright Leach Ore Stockpile and Southwest Lampbright Waste Rock Pile | | | | | | | | |
| Southeast | TLB10 | mw | | | BW | | | |
| | TLB11 | mw | | | BW | | | |
| | TLB6 | mw | | | BW | | | |
| | TLB5 | mw | | | BW | | | |
| | TLB16 | mw | | | BW | | | |
| | TLB7 | mw | | | BW | | | |
| | TLB34 | mw | BW | BW | BW | BW | | |
| | TLB17 | mw | BW | BW | BW | BW | | |
| | TLB23 | mw | BCW | BCW | BCW | BCDW | | |
| | TLB25 | mw | | | BW | | | |
| | TLB35A | mw | BCW | BCW | BCW | BCW | | |
| | TLB35B | mw | | | BW | | | |
| | TLB33A | mw | BCW | BCW | BCW | BCW | | |
| | TLB33B | mw | | | BW | | | |
| | TLB22 | mw | | | BW | | | |
| Southwest | TLB32 | mw | BCW | BCW | BCW | BCW | | |
| Reservoir 8 and Southern Tributary 1 | | | | | | | | |
| | Reservoir 8 | sw | BC | BC | BC | BCD | | **monthly Lake 1 |
| | Spg below Res 8 | spg | BC | BC | BC | BC | | |
| | Pond 4 | sw | BC | BC | BC | BC | | |
| | LB7S | mw | BCW | BCW | BCW | BCW | | |
| | LB7D | mw | BCW | BCW | BCW | BCW | | |
| | LB1 | mw | BCW | BCW | BCW | BCDW | | |
| | LB2 | mw | BW | BW | BW | BW | | |
| | LB3 | mw | BCW | BCW | BCW | BCW | | |
| | LB4 | mw | BW | BW | BW | BW | | |
| | LB5 | mw | BW | BW | BW | BW | | |
| | 376-96-01 | mw | | | BW | | | |
| | 376-96-03 | mw | | | BW | | | |
| | 376-96-04 | mw | | | BW | | | |
| | 376-96-05 | mw | | | BW | | | |
| | 376-96-06 | mw | | | BW | | | |
| | LB6 | mw | | | BW | | | |

May 14, 2004

Explanation to Abbreviations and Symbols

| | |
|--|--|
| <u>Type:</u> mw = monitoring well ew = extraction well sw = surface water spg = spring sp = seep | <u>Sampling Quarter:</u> Q1 = Jan-Mar Q2 = Apr-Jun Q3 = Jul-Sep Q4 = Oct-Dec |
| <u>Sampling Analytical Suites:</u> A = Field parameters: Temp, pH, specific conductance B = Indicator parameters: suite A, sulfate, TDS C = Comprehensive inorganic suite: alk-HCO ₃ , alk-CO ₃ , Ca, Mg, Na, K, F, Cl, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni and Zn D = Organic parameters I: TPH E = Organic parameters II: Kerosene, Ethylbenzene, Napthalene and Toluene. F = Other parameters as required by NMED: U, NO ₃ and Se. 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 1 st 12-months of leaching Lake 1 material, monthly for B and C. | |



BILL RICHARDSON
GOVERNOR

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



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

December 13, 2004

Richard N. Mohr, Unit General Manager
New Mexico Operations
Phelps Dodge Tyrone, Inc
P.O. Drawer 571
Tyrone, New Mexico 88065

**RE: Discharge Permit Renewal and Modification,
Gettysburg Pit and Leach System, DP-455, Tyrone Mine**

Dear Mr. Mohr:

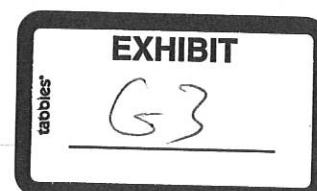
The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit Renewal and Modification, DP-455 to Phelps Dodge Tyrone, Inc. (PDTI) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC.

The Discharge Permit Renewal and Modification contains terms and conditions that shall be complied with by PDTI 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 Renewal and Modification does not relieve PDTI of its responsibility to comply with the WQA, WQCC Regulations, or 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, this Discharge Permit Renewal and Modification shall expire on **December 13, 2009**. You must submit an application for renewal at least 120 days before the permit expiration date.

7002 2430 0004 2505 6402

| | |
|--|----|
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| Restricted Delivery Fee (Endorsement Required) | |
| Richard N. Mohr, General NM Operations Phelps Dodge Tyrone, Inc PO Drawer 571 Tyrone, New Mexico 880 | |
| PS Form 3800, June 2002 | |



A189

Richard N. Mohr, PDTI
December 13, 2004
Page 2

Sincerely,



William C. Olson, Chief
Ground Water Quality Bureau

WCO:clm

Enclosure: Discharge Permit DP-455

cc: Mary Ann Menetrey, Program Manager, MECS (encl)
Karen Garcia, Chief, Mine Regulatory Bureau (encl)
Allyson Siwik, Gila Resources Information Project (encl)
Ken Smith, Manager, NMED District 3 (encl)

DISCHARGE PERMIT RENEWAL AND MODIFICATION
PHELPS DODGE TYRONE, INC., DP-455
GETTYSBURG PIT AND LEACH SYSTEM
December 13, 2004

I. INTRODUCTION

The New Mexico Environment Department (NMED) renews and modifies this Discharge Permit (DP-455) to Phelps Dodge Tyrone, Incorporated (PDTI) 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 NMAC 6.2.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from the Gettysburg Pit and Leach System 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 and protect public health. In issuing this Discharge Permit, NMED has determined that the requirements of 20.6.2.3109.C NMAC have been met.

DP-455, as issued in the last renewal dated January 15, 1995 for the Gettysburg Pit and Leach System, is briefly described as follows:

The area covered under this Discharge Permit includes the Gettysburg Pit, the Gettysburg 6C Leach System contained within the pit, and the 7B Leach System located west of the pit. Up to 4,320,000 gallons per day (gpd) of acidic leach solution (raffinate) is applied to the top of the unlined 6C and 7B leach stockpiles for the purpose of removing copper from the stockpiled ore. Up to 4,320,000 gpd (3,000 gallons per minute, gpm) of pregnant leach solution (PLS) and pit dewatering water is collected at the base of the Gettysburg Pit in an unlined impoundment (Gettysburg Pit Collection Pond). From the collection impoundment, the PLS is pumped via high-density HDPE pipelines to the solvent extraction/electrowinning (SX/EW) plant where the copper is removed. The barren leach solution is then returned to the leach system to repeat the process. The facility is located in Sections 25, 26 and 27, T19S, R15W, Grant County.

The modification to DP-455 is briefly described as follows:

1. The volume of raffinate applied to the 6C Leach Stockpile will be increased to a maximum of 6,336,000 gpd (4,400 gpm). The volume of raffinate applied to the 7B Leach Stockpile will be increased to a maximum of 4,752,000 gpd (3,300 gpm). The combined volume of PLS collected at the Gettysburg Pit Collection Pond and the 6C-2 Collection Pond will not exceed 6,120,000 gpd (4,250 gpm). The volume of PLS collected in the 7B Collection Pond will not exceed 4,680,000 gpd (3,250 gpm).
2. The synthetically lined 6C-2 PLS Collection Pond and booster station located on the southwest flank of the pit will be operated to collect a portion of the PLS from the 6C Leach Stockpile that was previously collected in the Gettysburg Pit Collection Pond.

3. The synthetically lined 7B PLS Collection Pond and booster station located west of the pit, will be operated to collect leach solution from the 7B Leach Stockpile and 360,000 gpd (250 gpm) from the No. 4A Leach Stockpile (DP-166).
4. The Gettysburg Pit Collection Pond will collect a portion of the PLS from the No. 1A Leach Stockpile (DP-363). The PLS enters the Gettysburg Pit from the No. 1A Leach Stockpile on east side at a maximum rate of 360,000 gpd (250 gpm).

Quantity, Quality and Flow Characteristics of the Discharge:

The leach ore stockpiles contain mineral sulfides which, when oxidized, generate acidic solutions. These acidic solutions react with in situ minerals, which produces acid rock drainage (ARD) and associated metals and sulfate contamination. The leach ore stockpiles also contain acidic leach solutions and residual acidity, including metals, from the leaching process that forms acidic leachate. This leachate from acid rock drainage and from the leaching process has moved directly or indirectly into surface and ground water.

The regulated discharge consists primarily of raffinate sprayed on the leach ore stockpiles and collection of the resultant pregnant leachate solution (PLS), which has a TDS concentration of approximately 70,000 mg/L. The raffinate and PLS exceed water quality standards under WQCC Regulations in Section 20.6.2.3103.A NMAC for cadmium, chromium, fluoride and lead; Section 20.6.2.3103.B for chloride, copper, iron, manganese, sulfate, total dissolved solids (TDS) and zinc; and Section 20.6.2.3103.C for aluminum, cobalt, and nickel. The discharge of raffinate to the Gettysburg 6C and 7B Leach Stockpiles and adjoining 4A and 1A Leach Stockpiles will be continuous. The discharge rate of raffinate to the Gettysburg 6C and 7B Leach Stockpiles shall not exceed 11,088,000 gpd. The collection of PLS at the three collection ponds is also continuous and shall not exceed 10,800,000 gpd.

Characteristics of Ground Water:

The depth to ground water below the site ranges from ground surface at the bottom of the Gettysburg Pit to approximately 560 feet along the pit perimeter. Ground water flow in the area moves generally towards the pit. The total dissolved solids concentration is approximately 500 milligrams per liter.

Activities That Produce the Discharge:

The Gettysburg Pit and Leach System is part of the Tyrone open pit copper mine operated by PDTI. The Gettysburg system is one of several leach systems at the mine where acidic leach solution (raffinate) is applied to the top of ore stockpiles for the purpose of leaching copper from the ore. The leach solution collected at the base of the stockpile, known as pregnant leach solution (PLS), is pumped to the solvent extraction/electrowinning plant to extract the copper. After the copper is extracted the leach solution is supplemented with additional sulfuric acid and returned to the stockpiles to repeat the leaching process.

General:

PDTI's Discharge Plan includes letters and documents submitted by PDTI to NMED dated December 8, 2000, February 13, 2002, September 21, 2004, and October 18, 2004. The discharge shall be managed in accordance with the Discharge Plan as conditioned by this Discharge Permit.

Issuance of this Discharge Permit does not relieve PDTI 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.

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 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 water quality and/or abate water pollution. Permit modification may include, but is not limited to, lining or relining impoundments, changing discharge locations, changing waste management practices, expanding monitoring requirements, and/or implementing abatement of water pollution.

The following abbreviations may be used in this permit:

| Abbreviation | Explanation | Abbreviation | Explanation |
|--------------|-----------------------------------|--------------|----------------------------------|
| PDTI | Phelps Dodge Tyrone, Inc. | NMSA | New Mexico Statutes Annotated |
| mg/l | milligrams per liter | PLS | pregnant leach solution |
| gpd | gallons per day | TDS | total dissolved solids |
| NMAC | New Mexico Administrative Code | WQA | Water Quality Act |
| NMED | New Mexico Environment Department | WQCC | Water Quality Control Commission |

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. PDTI is discharging effluent or leachate from Gettysburg Leach System so that such effluent or leachate may move directly or indirectly into ground water within the meaning of 20.6.2.3104 NMAC.
2. PDTI is discharging effluent or leachate from Gettysburg Leach System so that such effluent or leachate may move into ground water of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter or less of total dissolved solids within the meaning of 20.6.2.3101.A NMAC.

3. The discharge from Gettysburg Leach System is not subject to any of the exemptions of 20.6.2.3105 NMAC.

III. PERMIT CONDITIONS

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

OPERATIONS

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

Stockpile Limits:

2. Leach ore stockpiles in the Gettysburg Leach System shall not exceed the land surface areas and volumes currently projected through year 2008 as presented in the Closure/Closeout Plan for Tyrone Mine dated March 2001. PDTI must obtain a permit modification or amendment to DP-455 prior to expanding stockpile limits beyond the 2008 projections. [20.6.2.3106 & 3109 NMAC].

Flow Description:

3. PDTI is authorized to manage discharges of leach solutions as follows:
 - A. *Gettysburg Leach System:* Raffinate is applied to the Gettysburg 6C Leach Stockpile at a maximum rate of 6,336,000 gpd (4,400 gpm). PLS is discharged to the unlined Gettysburg Pit Collection Pond constructed in bedrock in the bottom of the Gettysburg Pit. PLS is also discharged at 250 gpm to this collection pond from the No.1A Leach Stockpile (DP-363) located along the eastern perimeter of the pit. The 6C-2 PLS Collection Pond and booster station located on the southwest flank of the pit also collects PLS from the 6C Leach Stockpile. PLS collected in the Gettysburg Pit Collection Pond may be transferred either to a booster station on the north side of the pit or to the 6C-2 and 7B booster stations for eventual delivery to the SX/EW plant. PLS collected at the 6C-2 Collection Pond may be transferred to the 7B booster station or directly to the No. 2 Collection Pond for eventual delivery to the SX/EW plant. The combined PLS discharge rate to the Gettysburg Pit Collection Pond and the 6C-2 Collection Pond shall not exceed 6,120,000 gallons per day (4,250 gpm).
 - B. *7B Leach and Collection System:* Raffinate is applied to the 7B Leach Stockpile at a maximum rate of 4,752,000 gpd (3,300 gpm). PLS is discharged to the synthetically lined 7B Collection Pond and booster station, which also collects PLS from the 4A Leach Stockpile (DP-166) at 250 gpm. The 7B booster station periodically receives PLS from the Gettysburg Pit and 6C-2 collection ponds. Overflow from the 7B Collection Pond reports to the East Main Leach System (DP-670). The PLS discharge rate to the 7B

Collection Pond shall not exceed 4,680,000 gallons per day (3,250 gpm). [20.6.2.3106 NMAC][20.6.2.3109 NMAC]

Pipeline Operation:

4. PDTI shall operate all PLS, raffinate and process water pipelines in a manner that to prevent their discharge to areas not authorized by this DP. Upon discontinuing the operation of a pipeline or prior to moving a pipeline, all PLS, raffinate 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 to ensure residual contaminants are removed. Discharges of PLS, raffinate 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 quarterly in accordance with Condition 10E. [20.6.2.3109 NMAC]

Pit PLS Levels:

5. PDTI shall maintain the fluid level of PLS in the bottom of the Gettysburg Pit below the water level in the surrounding monitoring wells GLD-3A, GLD-5A and EM-2, and the replacement wells for GLD-2A and GLD-7A. In no case shall the PLS fluid level exceed 5700 feet above mean sea level (msl). [20.6.2.3109 NMAC]

Monitoring Well Replacement:

6. PDTI shall replace monitoring wells GLD-2A and GLD-7A within 90 days of the date of this Discharge Permit. The locations of the new wells shall be approved by NMED prior to installation. The new wells shall be constructed and the replaced wells shall be plugged and abandoned according to *NMED Monitoring Well Construction and Abandonment Guidelines* (copy enclosed). Construction and lithologic logs for the new wells shall be submitted to NMED within 30 days of well completion. Plug and abandonment records for the replaced wells shall be submitted to NMED within 30 days of well abandonment. [20.6.2.3107 NMAC]
7. PDTI shall submit to NMED within 90 days of the date of this permit, a report describing the status of all existing and pre-existing monitoring wells required under DP-455. The report shall include all plug and abandonment records for the following abandoned monitoring wells: GLD-1, GLD-2, GLD-3, GLD-4, GLD-5, GLD-6, GLD-7 and GLD-4A. If plug and abandonment records are not available for a particular well, PDTI shall provide a detailed statement as to the current status of the well (e.g., mined out, buried, inaccessible). [20.6.2.3107 NMAC]
8. PDTI shall submit to NMED within 60 days of the date of this permit an operations map showing the current configuration of the Gettysburg Pit, the Gettysburg Leach System, and the 7B Leach Stockpile. The map shall include the discrete boundaries of all stockpiles permitted to be leached in addition to the collection ponds covered by this permit. The map

should also include the location of the collection ponds and all current monitoring well locations. The scale of the map shall be no smaller than 1:6000. [20.6.2.3107 NMAC]

MONITORING, REPORTING, AND OTHER REQUIREMENTS

9. PDTI shall conduct the following monitoring, reporting, and other requirements listed below in accordance with the WQCC Regulations at 20 NMAC 6.2.3107. A summary of monitoring requirements is attached to this permit as Table 1. A monitoring schedule is attached as Table 2. [20.6.2.3107 NMAC]

Sampling and Field Measurements:

10. PLS Collection Ponds – The Gettysburg and 7B PLS collection ponds shall be sampled as follows:

- A. PDTI shall record the elevation of the water level in the Gettysburg Pit collection pond to the nearest hundredth of a foot (0.01 ft) above msl, quarterly.
- B. PDTI shall collect samples from the Gettysburg Pit and 7B collection ponds quarterly and analyze for the water parameters listed in Conditions 14A and 14B below.

Analytical results and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

11. Ground Water Monitoring Wells – Monitoring wells GLD 2A (replacement), GLD-3A, GLD-5A, and GLD-7A (replacement) shall be sampled as follows:

- A. PDTI shall record the depth to the water table and elevation above msl to the nearest hundredth of a foot (0.01 ft), quarterly.
- B. PDTI shall collect samples from each well quarterly and analyze for the water parameters listed in Conditions 14A and 14B below.

Analytical results, depth to water level measurements and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

12. Pit Water – Accumulated water in the bottom of the Gettysburg Pit shall be sampled as follows:

- A. PDTI shall record the elevation of the water level to the nearest hundredth of a foot (0.01 ft), quarterly.
- B. PDTI shall collect a sample from accumulated pit water quarterly and analyze for the water parameters listed in Conditions 14A and 14B below.

Analytical results and water level elevations shall be reported as required in Condition 16 below. [20.6.2.3107 NMAC]

13. Discharge Volume – PDTI shall measure the daily discharge volumes using appropriate metering devices and/or calculation methods for the following discharges:

- A. Volume of PLS pumped from the Gettysburg PLS collection pond.
- B. Volume of PLS pumped from the 7B collection pond.
- C. Volume of raffinate applied to the top of the Gettysburg Leach Stockpile.

Discharge volumes shall be reported quarterly as required in Condition 16 below.
[20.6.2.3109 NMAC]

Analysis:

14. PDTI shall analyze samples of ground water and pit water for the parameters listed below. Samples of pit water and PLS shall be analyzed for total and dissolved concentrations of the analytes listed below and shall exclude field parameters. Samples of ground water shall be analyzed for dissolved concentrations of the analytes listed below.

- A. Field parameters (analysis to be performed in the field): temperature, pH, and specific conductance.
- B. Comprehensive inorganic parameters: alkalinity-bicarbonate, alkalinity-carbonate, calcium, magnesium, sodium, sulfate, potassium, fluoride, chloride, total dissolved solids, aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel and zinc. [20.6.2.3107 NMAC]

Methodology:

15. Unless otherwise approved in writing by NMED, PDTI 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. [20.6.2.3107B NMAC]

Reporting:

16. PDTI shall submit to NMED a quarterly report by the last day of March, June, September and December of each year. Information due semi-annually shall be submitted by the last day of March and September. Reports shall use the following format:
- A. A summary of all activities related to the discharge during the preceding quarter. Activities may include general operations, discharge volumes, changes in daily flow rates, spills, maintenance, repairs, well drilling, water management, construction or demolition of structures, addition of leach material, water quality and water level trends, and precipitation patterns.
 - 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 a single event shown in columns. Tabulated electrical conductivity shall include the measured field values and corrected values to 25 degrees Celsius. Monitoring sites shall be shown in rows. Values exceeding standards shall be bolded. Any constituent not analyzed for a 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.
 - C. A single table as described in Condition 16B above that includes all available ground water data to date shall be submitted annually. 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. Copies of the signed laboratory analyses sheet shall be provided quarterly. Daily volumes of acid leach solution applied to the leach ore stockpile and PLS pumped from the Gettysburg and 7B collection ponds shall be reported quarterly.
 - E. A potentiometric map for the Tyrone Mining Area shall be submitted semi-annually. The map shall incorporate the most recent water level data for the regional aquifer for all monitoring wells reported under DP-166, DP-286, DP-363, DP-383, DP-396, DP-455, DP-670 and DP-896.
 - F. A report describing all pipeline movement, removal or closure. Details must include the date, approximate location and length of the affected pipeline, and the type of operational change that occurred. The approximate volume, type and discharge location of the fluid removed from the pipeline must be included for each event. [20.6.2.3107 NMAC]

ABATEMENT

Abatement Plan Required:

17. 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 34 of the Supplemental Discharge Permit for Closure, DP-1341. 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-455 for the Gettysburg Pit and Leach System, 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 address selection of an abatement option to abate ground water contamination in the shortest reasonable timeframe and shall include an analysis of abatement alternatives pursuant to 20.6.2.4106.E.2 NMAC.

CONTINGENCY

Ground Water Exceedences:

18. In the event that monitoring indicates new areas where ground water standards are exceeded, or the extent or magnitude of existing ground water contamination is significantly increasing, PDTI shall collect a confirmatory sample from the monitoring well(s) within 15 days to confirm the initial sampling results. Within 30 days of confirmation of ground water contamination or significant increases in existing contamination, PDTI shall submit an abatement plan to NMED, 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, 4107, and 4112 NMAC. The abatement plan shall be implemented within 30 days of NMED approval. [20.6.2.3107A(10) NMAC]

Operational Failures:

19. In the event of a pipeline break, pump failure, pond overflow or other system failure at the facility, the PLS and raffinate 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, replaced or temporarily replaced with an interim remedy as soon as possible and no later than 72 hours from the time of failure. [20.6.2.3107A(10) NMAC]
20. If NMED or PDTI identifies any other failure of this Discharge Permit or system not specifically noted above, NMED may require PDTI to develop for NMED approval contingency plans and schedules to address such a failure. [20.6.2.3107A(10) NMAC]

Spill Reporting:

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

CLOSURE

22. PDTI shall maintain a closure plan for the entire Gettysburg Pit and Leach System pursuant to the Supplemental Discharge Permit for Closure, DP-1341. In the event that PDTI modifies or expands the Gettysburg Pit and Leach System pursuant to this Discharge Permit in a manner that exceeds the scope of the closure plan, PDTI shall propose changes to the closure plan accordingly. [20.6.2.3107A(11) NMAC]

FINANCIAL ASSURANCE

23. PDTI shall maintain financial assurance pursuant to the Supplemental Discharge Permit for Closure, DP-1341 for the entire Gettysburg Pit and Leach System. In the event that PDTI modifies or expands the Gettysburg Pit and Leach System pursuant to this Discharge Permit in a manner that exceeds the scope of the closure plan, PDTI shall propose changes to the financial assurance accordingly. [20.6.2.3107A(11) NMAC]

IV. GENERAL TERMS AND CONDITIONS

Record Keeping:

24. PDTI shall maintain at its facility a written record of all data and information on monitoring of ground water, surface water, seepage, 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. [20.6.2.3107A NMAC]
25. Such data and information described in Condition 24 shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples. [20.6.2.3107A NMAC]
26. PDTI shall maintain a written record of any spills, seeps, or leaks of effluent, leachate or process fluids not authorized by this Discharge Permit. [20.6.2.3107A NMAC]
27. PDTI 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 the permitted area. [20.6.2.3107A 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, PDTI 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 PDTI. [20.6.2.3107A NMAC]
29. All such data, records, reports, and other documents generated pursuant to this Discharge Permit, shall be provided to NMED upon request. [20.6.2.3107A NMAC]

Inspection and Entry:

30. PDTI shall allow the Secretary or an authorized representative of NMED, upon the presentation of credentials, to:
- A. Enter at regular business hours or at other reasonable times upon PDTI's premises or at any other location where records are kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.
 - B. Inspect and copy, during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.
 - C. Inspect, at regular business hours or at other reasonable times, any facility, equipment (including monitoring and control equipment or treatment works), practices or operations

regulated or required under this Discharge Permit, or under any federal or WQCC regulation.

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 discharge. [20.6.2.3107D NMAC] [74-6-9.B & 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, PDTI shall provide NMED with any relevant information to determine whether cause exists for modifying, terminating, or renewing this Discharge Permit, or to determine whether PDTI is in compliance with this Discharge Permit. [20.6.2.3107D NMAC][74-6-9.B & 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. [20.6.2.3107D NMAC][74-6-9.B & E WQA]

Spills, Leaks and Other Unauthorized Discharges:

34. This Discharge Permit authorizes only those discharges specified herein. Any discharge into ground water not authorized by this Discharge Permit or any other PDTI discharge permit is a violation of 20.6.2.3104 NMAC. PDTI 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. [20.6.2.1203 NMAC]

Modifications and Amendments:

35. PDTI shall notify NMED of any changes to its leachate or wastewater collection or disposal system, including any changes in the leachate wastewater flow rate or the volume of leachate or 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. PDTI 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 discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit. [20.6.2.3107C 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 PDTI 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, PDTI waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [74-6 WQA]

Compliance with Other Laws:

37. Nothing in this Discharge Permit shall be construed in any way as relieving PDTI of its obligation to comply with all applicable federal, State, and local laws, regulations, permits, or orders. PDTI does not waive any rights under such applicable federal, state and local laws, regulations, permits, or orders except as expressly provided in this Discharge Permit. [20.6.2 NMAC]

Liability:

38. The approval of this Discharge Permit does not relieve PDTI of liability should operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations. [20.6.2.3109 NMAC]

Right to Appeal:

39. PDTI 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 PDTI 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 PDTI Mine or any portion thereof, PDTI shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Permit with the notice. PDTI 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, PDTI must submit an application for renewal at least 120 days before that date. [74-6-5.H WQA][20.6.2.3109.H NMAC]

ISSUED this 13 day of December, 2004



William C. Olson, Chief
Ground Water Quality Bureau

**PDTI GETTYSBURG PIT AND LEACH SYSTEM, DP-455
MONITORING SUMMARY**

Monitoring Reports are due by: 31-MAR, 30-JUN, 30-SEP, 31-DEC

Table 1: Reporting Summary

| Annual Sampling Frequency | Annual Reporting Frequency | Number of Sites | Sampling Description |
|---------------------------|----------------------------|-----------------|--|
| 4 | 4 | 7 | Water levels quarterly in 4 monitoring wells, 2 collection ponds and Gettysburg pit water. |
| 4 | 4 | 4 | alk-HCO ₃ , alk-CO ₃ , Ca, Mg, Na, K, F, Cl, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni and Zn quarterly in 4 monitoring wells. |
| 4 | 4 | 3 | alk-HCO ₃ , alk-CO ₃ , Ca, Mg, Na, K, F, Cl, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni and Zn quarterly in 2 collection ponds and Gettysburg pit water. |
| 4 | 4 | 3 | Raffinate volumes to Gettysburg stockpile, and PLS volumes pumped from Gettysburg and 7B collection ponds quarterly. |
| 2 | 2 | 1 | Potentiometric map, semi-annually |
| 4 | 4 | NA | Activities report quarterly. |

Table 2: Monitoring Schedule

| Area | Well Number | Sampling | | | | | Notes |
|----------|----------------|----------|-----|-----|-----|-----|------------------|
| Sub-area | | type | Q1 | Q2 | Q3 | Q4 | |
| | GLD-2A | mw | ABW | ABW | ABW | ABW | Replacement well |
| | GLD-3A | mw | ABW | ABW | ABW | ABW | |
| | GLD-5A | mw | ABW | ABW | ABW | ABW | |
| | GLD-7A | mw | ABW | ABW | ABW | ABW | Replacement well |
| | Gettysburg PLS | pw | ABW | ABW | ABW | ABW | |
| | 7B PLS | pw | ABW | ABW | ABW | ABW | |
| | Gettysburg Pit | sw | ABW | ABW | ABW | ABW | |

Explanation to Abbreviations and Symbols

| | |
|---|--|
| <u>Type:</u> mw = monitoring well ew = extraction well sw = surface water pw = process water sp = seep | <u>Sampling Quarter:</u> Q1 = Jan-Mar Q2 = Apr-Jun Q3 = Jul-Sep Q4 = Oct-Dec |
| <u>Sampling Analytical Suites:</u> A = Field parameters: Temp, pH, specific conductance B = General chemistry parameters and metals: alk-HCO ₃ , alk-CO ₃ , Ca, Mg, Na, SO ₄ , K, F, Cl, TDS, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni and Zn. C = Other parameters as required by NMED W = Depth to water measurement to the nearest 0.01 foot. | |



BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

1190 St. Francis Drive
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-2918 Fax (505) 827-2965
www.nmenv.state.nm.us



RON CURRY
Secretary
SARAH COTTRELL
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

July 12, 2010

Robert P. Jornayvaz III, CEO
Intrepid Potash Inc.
Intrepid Potash New Mexico, LLC
707 17th Street, Suite 4200
Denver, Colorado 80202

RE: Discharge Permit, DP-1681, Intrepid Potash-New Mexico, LLC

Dear Mr. Jornayvaz:

The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit, DP-1681, to Intrepid Potash New Mexico, LLC, 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 (copy previously provided), 20.6.2 NMAC.

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

Pursuant to Paragraph (4) of Subsection H of 20.6.2.3109 NMAC, the term of the Discharge Permit shall be five years from the date of issuance and will expire on July 12, 2015. You must submit an application for renewal at least 180 days before the permit expiration date.

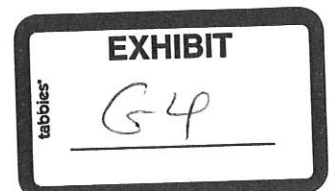
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| Return Receipt Fee (Endorsement Required) | |
| Restricted Delivery Fee (Endorsement Required) | |

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Robert P. Jornayvaz III,
Intrepid Potash Inc.
Intrepid Potash New Mexico, LLC
707 17th Street, Suite 4200
Denver, CO 80202

Permit 5800, August 2000



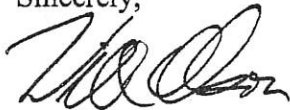
Intrepid Potash New Mexico, LLC, DP-1681

July 12, 2010

Page 2

If you have any questions, please contact Lawrence Shore at (505-827-2797). Thank you for your cooperation during this Discharge Permit review.

Sincerely,



William C. Olson, Chief
Ground Water Quality Bureau

WO/lrs

Encs: Discharge Permit, DP-1681

Ground Water Discharge Permit Conditions for Synthetically Lined Lagoons – Liner
Material and Site Preparation, Revision 0.0, May 2007

Ground Water Discharge Permit Monitoring Well Construction and Abandonment
Conditions, Revision 1.0, July 2008

cc: Frank Fiore, District Manager, NMED District III (permit)

NMED Carlsbad Field Office (permit)

Jim Sizemore, Office of the State Engineer (permit)

Kevin Ryan, Intrepid Potash New Mexico, 707 17th Street, Suite 4200, Denver, Colorado
80202 (permit)

Richard Schowengardt, 2794 Highway 93 South, Salmon, Idaho 83467 (permit)

**GROUND WATER DISCHARGE PERMIT
INTREPID POTASH NEW MEXICO, LLC, DP-1681
IN-SITU POTASH MINING PROJECT
July 12, 2010**

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit, DP-1681, to Intrepid Potash New Mexico, LLC (IPNM), 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.

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 IPNM's Class V injection wells, extraction wells, solar evaporation ponds and potash processing mill and brine management 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. In issuing this Discharge Permit, NMED has determined that the requirements of 20.6.2.3109.C NMAC have been met.

Facility Description

DP-1681 is being issued to cover the integrated processes associated with in-situ leaching of existing subsurface potash mine workings. IPNM will produce ground water from the Magenta or Culebra Member of the Rustler Formation from four production wells. The ground water will be conditioned by adding salt from the existing IPNM'S West Plant salt tailings and/or recycled salt derived from the new IPNM Mill to form an injectate that is saturated with respect to sodium chloride. IPNM will introduce the injectate into the lower portion of existing underground potash mines via six Class V UIC injection wells. The existing mines to be flooded include the HB Potash North Mine, the HB Potash South Mine, the HB Crescent Mine, and the HB Eddy Mine. As a result of injecting the saturate brine, dissolution of potassium chloride will occur from the floors, pillar walls, peripheral walls and ceilings of the mine workings. The pregnant brine (PB) is pumped from the workings through five extraction wells and transferred through a pipeline to a network of approximately 23 synthetically lined solar evaporation ponds. IPNM uses evaporation and decantation processes to precipitate a mixture of solid sodium and potassium chloride within the lined evaporation ponds. IPNM will mechanically harvest the solid sodium and potassium chloride and transfer it to a slurry pit/pump box and mix with brine to create a brine slurry within the solar pond area. The slurry is pumped through a pipeline to the newly constructed HB Mill for further beneficiation. The potassium and sodium chloride are separated in the flotation mill using an amine flotation process. After flotation, standard classification, filtration and dewatering methods are applied to further concentrate the solid potassium chloride product before it is transported from the new HB Mill to the existing North Mine facility for further drying, grading and preparation for sale. The sodium chloride by-product generated in the flotation process is recycled to make additional injectate.

Location

The IPNM project area consisting of the mines, solar evaporation ponds, plant facilities and offices are located approximately 20 miles east of Carlsbad, in Eddy County, New Mexico. The production wells are located in Sections 1 and 2, T21S, R29E. The injection wells are located in Sections 26, 33 and 36, T19S, R30E; Section 23, T20S, R29E; Section 19, T20S, R30E and Section 6, T20S, R31E. The extraction wells are located in Section 36, T19S, R30E; Section 7, T20S, R31E; Sections 4 and 29, T20S, R30E; and Section 26, T20S, R29E. The monitoring/extraction wells are located in Sections 15, 24, and 36, T20S, R30E. The new HB Mill is located in Section 12, T21S, R29E. The solar evaporation ponds and associated monitoring wells are located in Section 2, T21S, R29E. The pipelines connecting the various components of the facility are located in Section 31, T19S, R31E; Sections 26, 27, 33, 34, 35 and 36, T19S, R30E; Sections 6 and 7, T20S, R31E; Sections 3, 4, 9, 15, 16, 19, 20, 21, 24, 25, 28, 29, 33, 34 and 36, T20S, R30E; Sections 1, 2, 3, 11 and 12, T21S, R29E; and Sections 23, 24, 25 and 26, T20S, R29E. The approximate surface expression of the underground mine workings to be flooded, a portion of which are proposed to be flooded, lie within Sections 21, 22, 23, 26, 27, 28, 29, 32, 33, 34, 35 and 36, T19S, R30E; Sections 13, 14, 15, 22, 23, 24, 25, 26, 27, 34 and 35, T20S, R29E; Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 16, 17, 18, 19, 20, 21, 29 and 30, T20S, R30E; and Sections 6, and 7, T20S, R31E.

Quantity, Quality and Flow Characteristics of the Discharge

IPNM will condition ground water from four Rustler Formation production wells (IP-WS-001, IP-WS-002, IP-WS-003 and IP-WS-004) pumping at a combined average rate of 1,100 gallons per minute. Conditioning is achieved through the addition of sodium chloride produced from two sources: sodium chloride salt from existing IPNM tailings, and a sodium chloride brine stream from the new IPNM flotation mill. IPNM pumps this conditioned injectate through a system of six, Class V Underground Injection Control (UIC) wells (IP-015, IP-017, IP-019, IP-022, IP-029 and IP-031) into the underground workings of four separate, but interconnected, conventionally mined out underground potash mines. The maximum combined injection rate for the six permitted injection wells is 2,000 gpm. The injectate contains dissolved proportions of approximately 24% sodium chloride, 1% potassium chloride, 0.5% magnesium chloride and 0.4% calcium sulfate. The injectate selectively dissolves and leaches potassium and magnesium chloride salts from the floors, pillar walls and ceiling of the former underground mines where interconnected potassium chloride (KCl) is exposed to the injectate solution producing a PB.

IPNM extracts the PB from the underground workings through a system of five extraction wells (IP-020, IP-016, IP-018, IP-028, and IP-030). The average combined rate from the five extraction wells is 1,100 gpm. Extracted PB is piped to a solar evaporation and salt harvesting facility. The maximum permitted discharge to the solar evaporation ponds is 4,608,000 gallons per day (3,200 gpm).

The solar evaporation and salt harvesting facility consists of approximately 23 individual, solar evaporation ponds ranging from 16 to 26 acres in surface extent which cover a combined area of approximately 520 acres. The ponds are lined with 60 mil minimum HDPE liners or equivalent and covered with an 18-inch thick layer of consolidated and hardened salt that provides a structural platform for the operation of mechanical harvesting equipment without damaging the integrity of the underlying synthetic liner.

Once the solar evaporation ponds are filled to design elevations KCl is precipitated as evaporation of PB occurs. Upon near-complete evaporation of PB, a mixture of potassium and sodium salts are harvested from the solar evaporation ponds by mechanical scrapers and deposited in a slurry pit/pump box located within the solar evaporation ponds facility where the harvested salts are remixed with process brine to form a slurry.

The slurry is pumped through a pipeline to the new HB Mill where potassium chloride is separated from other salts using an amine flotation process. The sodium chloride by-product from the flotation and refining process is returned to the injectate conditioning unit where it is reused to produce conditioned (saturated) injectate brine.

IPNM uses portable pumps to manage brine solutions within the solar ponds. Throughout this process, a brine enriched in magnesium chloride (MgCl) is produced as a by-product stream which IPNM sequentially segregates and pumps into one of the lined ponds within the solar pond area, where it concentrates as MgCl enriched bitterns. IPNM intends to beneficiate this by-product stream into a commercial magnesium product as market conditions allow. If IPNM is unsuccessful in beneficiating and selling this product, the MgCl bitterns may be returned to the underground workings upon completion of the in-situ leaching project.

All of the brine streams including the Rustler source water, conditioned injectate, PB, brine by-product from the flotation mill, brine make-up water, and brines managed in the solar evaporation ponds exceed water quality standards under WQCC Regulations in Section 20.6.2.3103.B NMAC for chloride, sulfate and total dissolved solids (TDS). In addition, concentrations of arsenic, barium, cadmium, chromium, lead, mercury, and selenium may be elevated.

Characteristics of Ground Water

Ground water beneath the facility exists in the Magenta Dolomite Member and the Culebra Dolomite Member of the Rustler Formation, and in the Dewey Lake Formation. Depth to ground water within the Magenta ranges from approximately 200 to 270 feet below ground surface in the solar pond area. Potentiometric surface levels in the Magenta are generally 36 to 257 feet above the top of the Magenta Member indicating it presently is a confined aquifer. Depth to ground water within the Culebra Dolomite Member is approximately 245 feet below ground surface. The potentiometric surface is approximately 195 feet above the top of the Culebra Dolomite Member indicating it also is a confined aquifer. Depth to water in the Dewey Lake Formation is approximately 198 feet below ground surface based on data from well IP-WW-007.

Total Dissolved Solids (TDS) concentrations in the Magenta Member range between 1,400 and 120,000 milligrams per liter (mg/l). TDS concentrations in the Culebra Member ranges from approximately 110,000 to 120,000 mg/l. TDS concentrations in the Dewey Lake Formation range from 4500 to 5300 mg/L based on data from well IP-WW-007.

General

IPNM's Discharge Plan includes the discharge permit application dated March 14, 2008. IPNM has submitted additional application materials including: a Draft Hydrogeological Investigation and Groundwater Monitoring Plan report dated October 31, 2006 and responses to NMED's requests for additional information including a series of Technical Memorandums (DP-001 through DP-011). All discharges shall be managed in accordance with the Discharge Plan and all relevant submittals as conditioned by this Discharge Permit.

Issuance of this Discharge Permit does not relieve IPNM 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.

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 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 water quality and/or abate water pollution. Permit modification may include, but is not limited to, lining or relining impoundments, changing discharge locations, changing waste management practices, expanding monitoring requirements, and/or implementing abatement of water pollution.

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. IPNM is discharging effluent or leachate from the HB In-situ Project so that such effluent or leachate may move directly or indirectly into ground water within the meaning of 20.6.2.3104 NMAC.
2. IPNM is discharging effluent or leachate from the HB In-situ Project so that such effluent or leachate may move into ground water of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter or less of total dissolved solids within the meaning of 20.6.2.3101.A NMAC.
3. The discharge from HB In-situ Project is not subject to any of the exemptions of 20.6.2.3105 NMAC.

4. The HB In-situ Project Facility is located at a place of withdrawal of water for present or reasonably foreseeable future use within the meaning of 20.6.2.3101A NMAC.

III. PERMIT CONDITIONS

The following conditions shall be complied with by IPNM and are enforceable by NMED. IPNM is permitted to discharge water contaminants subject to the following conditions.

OPERATIONS

1. IPNM shall implement the following operational requirements in accordance with the WQCC Regulations at 20.6.2.3106.C and 3107 NMAC to ensure compliance with 20 NMAC Chapter 6, Parts 1 and 2. [20.6.2.3106.C NMAC][20.6.2.3107 NMAC]

Discharge Flow Description and Authorization

2. IPNM is authorized to manage discharges of tailings and brine as follows:

- A. *Floatation Mill and Filtration Plant:* A granulated mixture of potassium and sodium chloride harvested from the solar ponds is processed at the new HB Mill and Filtration Plant. An amine floatation reagent, oil extender and frothing agent are added to the slurry to facilitate separation of potassium chloride from sodium chloride in the floatation process. Concentration of the potassium chloride product is carried out in rougher floatation cells where air is bubbled through the brine slurry. Several iterations of floatation and centrifuge separation are applied to the potassium chloride product stream rendering a refined potash cake containing between 4 to 7 percent moisture content. This product is then conveyed to a dryer system at the existing IPMN North Plant where the moisture is removed and the product prepared for market. The sodium chloride tailing stream derived from the rougher floatation tanks is piped to the Ground Water Conditioning Unit where it is mixed with Rustler ground water to prepare brine injectate that is then pumped to IPNM's injector wells piped into the underground leach lakes.
- B. *Ground Water Conditioning Unit:* Ground water produced from four ground water production wells screened in the Rustler Formation will be pumped to the Ground Water Conditioning Unit located at the new HB Mill. Ground water is mixed with sodium chloride (NaCl) tailings brine and solid NaCl to form a conditioned injectate. After IPNM constructs the new HB Mill and begins harvesting from the solar evaporation ponds, the entire NaCl tailings stream from the new mill will be used to condition Rustler water for injectate. Prior to the new HB Mill operation and during periods when the new HB Mill does not produce enough NaCl, NaCl will be obtained from the existing West Mine facility.
- C. *Brine Injection into Underground Mine Workings:* Conditioned brine (saturated with NaCl) pumped from the Ground Water Conditioning Unit will be injected at a maximum rate not to exceed 2,000 gpm into the four underground mine workings identified in

Table 1. The brine flood levels shall not exceed the maximum flood elevations above Mean Sea Level (MSL) listed in Table 1 below.

Table 1: Table of Maximum Flood Elevations

| Mining Area | Lower Elevation MSL | Upper Elevation MSL | Maximum Flood Elevation MSL |
|-----------------------------------|--------------------------------|--------------------------------|--|
| HB North Mine Open Workings | 1,975' | 2,450' | 2,325' |
| HB Crescent Mine Open Workings | 2,050' | 2,340' | 2,200' |
| HB South Mine Open Workings | 2,375' | 2,640' | 2,525' |
| HB Eddy Mine Open Workings | 2,575' | 2,750' | 2,675' |

- D. *Extraction Wells*: PB shall be pumped from up to five extraction wells at a combined rate not to exceed 3,200 gpm through a network of pipelines and booster pump stations located at ground level to the solar evaporation ponds. The average annual combined rate from the five extraction wells is 1,100 gpm.
- E. *Evaporation Solar Ponds*: PB shall be discharged to a system of approximately 23 solar evaporation ponds managed to concentrate salts through precipitation, creating solid salt precipitate that IPNM will mechanically harvest and transport via scrapers to a slurry makeup area located within the solar pond area. IPNM shall pump the slurry of sodium chloride and potassium chloride from the slurry pit/pump box by HDPE pipeline to the new HB Mill.
- F. *MgCl Bitterns Management Evaporation Pond*: A small by-product stream of brine enriched with magnesium chloride mixed with trace amounts of sulfate and other insoluble residuals is generated during normal operation of the solar evaporation ponds. The magnesium enriched brine by-product stream shall be pumped to one solar evaporation pond designated specifically for magnesium chloride storage and/or disposal. IPNM shall use moveable, HDPE pipelines and a trailer-mounted pump to transfer the magnesium enriched brine stream within the solar pond system. The amount of magnesium enriched brine generated at full build-out of the solar pond facility is estimated not to be greater than 20 gpm of combined flow.
- G. *Pipelines*: Pipelines and pumps of various capacities and construction deliver ground water and brines to the various components of this in-situ mining operation. The pipeline systems include:
- 1) *Ground Water Production Lines*: Rustler ground water shall be pumped from the Rustler production wells over a distance of up to 3 miles through HDPE pipelines to the new HB Mill to be conditioned into injectate.

- 2) *Injectate Lines*: Injectate shall be pumped from the brine conditioning unit at the new HB Mill to the injection wells over a distance of up to 11 miles through HDPE pipelines.
- 3) *Pregnant Brine Lines*: PB shall be pumped from extraction well heads to the solar evaporation ponds through a system of up to 13 miles of HDPE pipeline.
- 4) *Harvested Product Slurry Lines*: Harvested slurry shall be pumped from the slurry pit/pump box inside the solar pond area to the new HB Mill through a 2.5 mile HDPE pipeline.

Plans and Specifications

3. IPNM shall submit to NMED for approval, a minimum of 30 days prior to construction, plans and specifications for the synthetically lined (60 mil HDPE minimum or equivalent) solar evaporation ponds, including a plan view of the evaporation pond area showing all facilities; lift and booster pump stations, injection well-head pads and extraction well-head pads. As-built documentation of the solar evaporation ponds, pond liners, pipelines, and final pond capacity calculations shall be submitted to NMED within 90 days following completion of pond construction. A New Mexico registered professional engineer shall certify construction plans and specifications, supporting design calculations, and as-built documents. [20.6.2.3109 NMAC]

Solar Evaporation Ponds

4. IPNM shall construct the solar evaporation ponds in accordance the conceptual plans submitted in the discharge plan application dated March 14, 2008 and detailed design plans submitted pursuant to Condition 3 above. [20.6.2.3109 NMAC]
5. IPNM shall maintain a minimum of 18 inches of freeboard in the solar evaporation ponds at all times. In the event that a minimum of 18 inches of freeboard cannot be maintained at all times, IPNM shall submit a corrective action plan for NMED approval to modify the management of discharge volumes. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]

Pipeline and Well Head Construction Pads

6. IPNM shall construct storm water underflow structures or bury pipelines at low points along the pipeline corridor to enable storm water to bypass the pipeline during storm events. [20.6.2.3109 NMAC]
7. IPNM shall construct a pipeline crossing under Highway 62/180 to house the brine injectate and PB and dilution water pipelines. IPNM shall submit to NMED for approval a minimum of 60 days prior to construction final plans and specifications for the pipeline crossing. A New Mexico registered professional engineer shall certify all construction plans and

specifications and supporting design calculations. [20.6.2.3109 NMAC]

8. IPNM shall construct and maintain berms around all pump stations and wellhead pads to contain and minimize impacts associated with unpermitted discharges from the pipeline system. [20.6.2.3109 NMAC]
9. IPNM shall construct and maintain storm water diversions around pump stations and wellhead pads sufficient to divert storm water away from these structures. [20.6.2.3109 NMAC]

Pipeline Operation

10. IPNM shall operate all brine and process water pipelines in a manner to prevent discharge in areas not authorized by this Discharge Permit. Upon discontinuing the operation of a pipeline or prior to moving a pipeline, all brine, PB 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. Discharges of brine injectate, PB and process water from pipelines to non-authorized areas must be reported under 20.6.2.1203 NMAC. All maintenance and changes in pipeline operations that result in removal of pipelines and their respective fluids in unauthorized discharge areas must be reported quarterly in accordance with Condition 28. [20.6.2.3109 NMAC]
11. Prior to operating all pipelines, IPNM shall install flow meters on the pipeline systems capable of measuring flow rates within an accuracy range of 1%. Flow measurements shall be used as part of the basis for pipeline leak detection. [20.6.2.3107 NMAC]
12. IPNM shall perform a mechanical integrity test on each pipeline upon completion of construction and before injectate brine or PB is discharged to the pipelines. The pipelines shall be integrity tested prior to start-up including following standby periods in excess of 180 days. The testing procedures reference ASTM F2164 - 02(2007) Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure and the New Mexico Highway and Transportation Department, Standard Specification for Highway and Bridge Construction <http://nmshtd.state.nm.us/main.asp?secid=14860>: [20.6.2.3107 NMAC]
 - A. Each section of the piping system shall be slowly filled with water and all trapped air bled off until the piping section reaches 150% of the designed working pressure for the pipeline. After reaching target pressure (150% of the designed working pressure), the pressure shall remain steady within 5% of the target pressure for one hour. In no event shall the total test period exceed 8 hours of pipeline pressures at 150% of the designed working pressure for the pipeline.

- B. If leaks occur at a joint and/or joints they shall be replaced and the test repeated.
 - C. All pipe or appurtenances that are found to be defective shall be removed and replaced with sound units.
 - D. No piping will be accepted until it sustains pressure without the addition of more fluids.
 - E. The integrity test results shall be certified by a New Mexico registered professional engineer. Any subsequent tests must be certified by a New Mexico registered professional engineer.
13. IPNM shall conduct testing on each monitored pipeline during the first three months of operations, in order to establish the normal flow rate variance range between each end of the pipeline. As a starting point, during normal operations (not including periods when the lines are slack) if the leak detection system alarms indicate a variation of 1% or greater of the total operational flow volume of the pipeline an inspector must be dispatched immediately to conduct a visual inspection. Within the initial three months of operation, IPNM may propose alternate inspection trigger guidelines, based on actual operational variances, for NMED review and approval. [20.6.2.3107 NMAC]
14. During normal operations if the leak detection system alarms indicate a leak of greater than 5% of the total operational flow volume of the pipeline the pumps shall be shut down automatically, the automatic valve will be closed and a pipeline inspection will commence immediately. During the first three months of operation, IPNM may propose alternate shut down trigger guidelines, based on actual operational variances, for NMED review and approval. [20.6.2.3107 NMAC]
15. IPNM shall report the date, time, duration and location of all false alarms from the leak detection system in the quarterly reports as described in Condition 28. [20.6.2.3107 NMAC]

Storm Water Management

16. IPNM shall manage onsite storm water as follows. [20.6.2.3109 NMAC]
- A. All solar evaporation pond berms shall be constructed above the grade of the solar evaporation ponds and sloped to route storm water falling on the berms into the solar evaporation ponds with the exception of the outermost perimeter berm.
 - B. Storm water upgradient of the solar pond area designated as Drainage Area 1 and Drainage Area 2 referenced in Technical Memorandum DP-001, shall be diverted around the solar evaporation pond via excavated channels, dikes or other conveyances to outlying areas.
 - C. Storm water upgradient of the new HB Mill shall be diverted around the system via excavated channels and dikes, to the degree possible, to outlying areas north and west of

the facility. Construction specifications for the storm water diversion structures shall be included in the as-built plans required in Condition 3.

MONITORING, REPORTING AND OTHER REQUIREMENTS

17. IPNM shall conduct the monitoring, reporting and other requirements listed below and summarized in Table 2. [20.6.2.3107 NMAC]

Sampling and Field Measurements

18. Ground Water and Production Well Monitoring - IPNM shall monitor ground water quality and water elevations as follows and summarized in Table 3. [20.6.2.3107 NMAC]

- A. Monitoring wells IP-WW-001, IP-WW-002, IP-WW-003, IP-WW-004, IP-WW-005, IP-WW-006, IP-WW-007, IP-WW-008, IP-WW-009, IP-WW-010 and the Cowden Windmill well shall be sampled as follows:
- 1) IPNM shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), quarterly.
 - 2) IPNM shall collect samples from each well quarterly and analyze the samples for the water parameters listed in Condition 26A, 26B and 26C below.
- B. Rustler Groundwater Production Wells - IP-WS-001, IP-WS-002, IP-WS-003, IP-WS-004 shall be sampled as follows:
- 1) IPNM shall meter ground water produced from each well with a totalizing water meter and shall submit water production volumes quarterly as described in Condition 28
 - 2) IPNM shall collect samples from each well quarterly and analyze the samples for water parameters listed in Conditions 26B and 26C.
- C. Flood Elevation Monitoring– IPNM shall measure and record on a weekly basis water elevations in the flood zones inside the underground mine workings using pressure transducer sensors attached to injection and extraction wells.

Table 3 summarizing this schedule is attached to this permit. Analytical results, water level measurements, and depth to ground water measurements shall be reported as required in Condition 28 below.

19. PB Effluent Quality – IPNM shall collect a sample of the pregnant brine discharged to solar evaporation ponds at the primary outfall semi-annually and analyze the sample for the parameters listed in Conditions 26B and 26C. Analytical results shall be reported as required

in Condition 28 below. [20.6.2.3107 NMAC]

20. PB Discharge Volume – IPNM shall measure the monthly volume of brine discharged to the solar evaporation ponds using a totalizing meter or other measuring device pre-approved by NMED. Discharge volumes shall be reported as required in Condition 28 below. [20.6.2.3109 NMAC]
21. Storm Water System Monitoring – IPNM shall inspect on a monthly basis all storm water impoundments, diversions, and berms for evidence of erosion or other features that may compromise the integrity of the storm water management system. [20.6.2.3107 NMAC]
22. Solar Pond Leak Detection:
 - A. IPNM shall design and install an electro-conductivity based leak detection network at an average designed depth of 60 feet capable of detecting a release of brines from any solar evaporation ponds to the vadose zone. IPNM shall conduct at least one electro-conductivity monitoring event of the complete leak detection network per quarter. IPNM shall submit results of the monitoring events as part of monitoring report as required in Condition 28 below.
 - B. Within 120 days after placement of the first brine solution in to the first solar evaporation pond IPNM shall submit a baseline electro-conductivity report to NMED. The report shall include the following: [20.6.2.3107 A.(3) NMAC]
 - 1) The accuracy, precision and variability of electrical conductivity between each of the sampling points of the leak detection monitoring system.
 - 2) A methodology for identifying the electro-conductivity signature and threshold that would identify a significant release of brine from any solar pond to the vadose zone. The threshold for a significant release may be defined as a measure of electro-conductivity between any two sampling points that exceeds, by one standard deviation, the mean of a population of measures of electrical conductivity collected between said sampling points since inception of the monitoring system.
 - 3) The background electro-conductivity signature shall include no less than three independent sampling events between sampling points of the electrical conductivity network.
 - 4) A proposal for quarterly reporting including: dates of sampling, a map showing the location of electro-conductivity wells and ponds, and the depths of the sampling points, and the results of quarterly sampling.
 - C. Upon approval by NMED of the format and content of the proposed quarterly report described in Condition 22B, IPNM shall include the report as part of the quarterly reporting required under Condition 28 below.

23. Subsidence Monitoring - IPNM shall conduct subsidence monitoring within the surface expression of the underground mines. The subsidence monitoring program shall be able to detect changes in surface elevation that may impair the structural integrity, performance and safe operation of pregnant brine and injectate brine pipelines. [20.6.2.3107 A. NMAC]
- A. Baseline Monitoring – At least 180 days prior to initiation of injection of brine into any of the underground workings of the IPNM In-Situ project area, IPNM shall initiate a baseline subsidence monitoring study. The study shall be designed to provide baseline ground elevation data for monuments located within the zones of potential additional subsidence identified in Technical Memorandum DP-003. IPNM shall measure designated survey points with an accuracy of +/- .01 feet relative to MSL.
- B. Threshold Subsidence Monitoring: IPNM shall survey the elevation of all approved monument locations quarterly and report the elevation data in tabular format as required under Condition 28C.
- C. In the event subsidence monitoring indicates a potential impairment to the structural integrity, performance and safe operation of product and brine pipelines, IPNM shall submit a written notice to NMED including corrective actions if required.
24. Pipeline Control and Leak Detection – All pipelines installed for the purpose of conveying produced water, brine, and potash slurry except those within the solar evaporation pond area shall be fitted with leak detection pressure sensors. IPNM shall monitor pipeline pressures and flow rates at each end of their pipeline segments and at least one additional monitoring point in the middle of each segment. Pressure and flow data shall be recorded, stored and reviewed at least daily for anomalous flow conditions. Alarms and automatic shut down systems shall be installed in all pipeline systems. IPNM shall submit a written report to NMED providing as-built drawings of the pipeline system and a written description of the final design, including capacities, sensor locations, standard operating procedures, and shutdown and pipeline draining procedures that IPNM will follow to prevent un-permitted release from any pipeline system. Data collected by IPNM for the purpose of pipeline control and leak detection shall be reported annually with the January quarterly report and shall be maintained in the IPNM discharge permit database for a period of at least five years from the date of approval of this permit. [20.6.2.3107 A.(6) NMAC], [20.6.2.3107 A.(7) NMAC]
25. Pipeline Inspections: IPNM shall conduct weekly inspections of all pipelines and pumps installed for the conveyance of produced ground water, conditioned brine injectate, PB and brine/potash slurry. The status of all pipeline systems shall be recorded weekly in the IPNM mine database system and made available for NMED review upon request. [20.6.2.3107 A (9) NMAC]

Analysis

26. IPNM shall analyze water from the monitoring wells, PB and the Rustler production wells for dissolved concentrations of the analytes listed in below. [20.6.2.3107 NMAC]

- A. Field and/or laboratory parameters: pH, temperature and specific conductance, dissolved oxygen, oxidation / reduction potential, static water level below top of casing.
- B. General chemistry parameters: Sulfate, Chloride, Nitrate + Nitrite (as N), Carbonate, Bicarbonate, Ion Balance, and Total Dissolved Solids.
- C. Metals: Arsenic, Barium, Cadmium, Calcium, Chromium, Lead, Magnesium, Mercury, Potassium, Selenium and Sodium

Methodology

- 27. Unless otherwise approved in writing by NMED, IPNM shall conduct sampling and analysis in accordance with the most recent edition of following documents. [20.6.2.3107B NMAC]
 - 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.

Reporting

- 28. IPNM shall submit quarterly reports by the last day of January, April, July and October of each year that includes the following information and format. Table 3 summarizing the monitoring requirements is attached to this permit. [20.6.2.3107 NMAC]
 - A. A summary of all activities and data related to the permitted discharge during the preceding quarter. This includes operational activities, monthly flow volumes, spills, maintenance, repairs, well drilling, water management, construction or demolition of structures including new or existing domestic waste facilities, water quality trends, precipitation, trends in water levels within the flood zone of the underground workings and elevations of all designated subsidence monitoring monuments within the project

area.

- B. A single table in a paper and electronic format (EXCEL spreadsheet) of water quality data with constituents analyzed and water levels measured during a single event shown in columns. Tabulated electrical conductivity shall include the measured field values and corrected values to 25 degrees Celsius. Monitoring sites will be shown in rows. Each additional sampling event shall be entered as an additional row to the existing spreadsheet with the date noted in a column on the left. Values exceeding standards will be bolded. Any constituent not analyzed for a particular site will be shown as "NA", 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.
- C. A potentiometric map shall be prepared semi-annually which incorporates all water level data for the monitoring wells listed in Condition 18 A and B from the most recent sampling event.
- D. Copies of the signed laboratory analyses sheet shall be provided quarterly in an electronic format.
- E. A table of quarterly elevation measurements of subsidence monitoring stations that provides the history of elevation change relative baseline elevations described in 23 C.

CONTINGENCY PLAN

Ground Water Exceedences

29. In the event that monitoring indicates ground water standards are exceeded during the term of this Discharge Permit, upon closure of the facility or during post-closure monitoring, IPNM shall collect a confirmatory sample from the monitoring well(s) within 15 days to confirm the initial sampling results. Within 30 days of confirmation of ground water contamination, IPNM shall submit a plan to NMED to abate impacts to ground water caused by IPNM's operation. At a minimum, the plan shall address the following elements: 1) development and implementation of ground water investigation to define the source, nature and extent of contamination, 2) evaluation and selection of a proposed abatement option based on the findings of the ground water investigation activities; and 3) a schedule for implementation of the abatement activities. The site investigation and abatement option shall be consistent with the requirements and provisions of 20.6.2.4101, 4103, 4106C & E, 4107, and 4112 NMAC. The abatement plan shall be implemented within 30 days of NMED approval.
[20.6.2.3107A(10) NMAC]

Operational Failures

30. In the event of a berm breach, pipeline break, pump failure or other system failure at the facility that threatens ground water as defined by 20.6.2.3101 NMAC, tailings and process waters 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. Inconsequential failures that do not threaten ground water quality shall be reported in the quarterly monitoring reports and include a brief action plan and completion report. [20.6.2.3107A(10) NMAC]

31. If NMED or IPNM identifies any other failures of the discharge plan or system not specifically noted in this permit, NMED may require IPNM to develop for NMED approval contingency plans and schedules to address the failures. [20.6.2.3107A(10) NMAC]

Spill Reporting and Remediation

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

ADDITIONAL STUDIES

Excess Salt Handling, Storage and Disposal Plan

33. IPNM shall submit an excess salt management plan to NMED for approval no less than 60 days prior to commencement of initial filling of the existing underground openings. The plan must include an evaluation of the amount of excess salt that IPNM will generate on an annual basis throughout the full lifetime operation of the in-situ potash leaching project. The excess salt management plan must also provide an alternative means for the disposal of excess salt and brine that eliminates the need to dispose of salt and brine on the existing West Plant tailings impoundment.

Subsidence Impact Analysis and Mitigation Plan

34. IPNM shall submit a subsidence impact analysis report to NMED for approval no less than 60 days prior to commencement of initial filling of the existing proposed underground openings. The subsidence impact analysis report must analyze the potential risks that flooding of the underground mines may have on the operation of active oil wells, gas wells and oil field production water disposal wells in the zone of potential subsidence risk located around the margins of underground mine workings. The report must evaluate the possibility that subsidence may affect the structural integrity of any existing wells in this zone. The report should propose a mechanism for monitoring subsidence in the vicinity of these wells and provide a mitigation plan should subsidence impair the integrity of any of the wells.

CLOSURE

35. Upon cessation of operation of the IPNM in-situ leaching and solar pond evaporation facility, IPNM shall perform the following actions. [20.6.2.3107A(11) NMAC]
- A. All pipelines shall be drained, rinsed and removed. Pipeline corridors and access roads shall be removed and the access road reclaimed.
 - B. The solar evaporation pond liners shall be removed or ripped and buried in place.
 - C. After completion of salt harvesting, the evaporation pond berms shall be breached and the ponds regraded to prevent ponding and create positive drainage.
 - D. All construction and maintenance buildings will be removed.
 - E. Unneeded power lines shall be decommissioned.
 - F. All borrow areas shall be reclaimed.
36. IPNM shall follow the detailed plan submitted for closure of the pipeline distribution network and the solar evaporation system, including but not limited to, removal of pipelines, removal of buildings, structures and equipment, removal or perforation of liners, regrading of berms and impoundments, post closure monitoring and abandonment of monitoring, injection and extraction wells. [20.6.2.3107A(11) NMAC]
37. IPNM shall continue ground water monitoring as described in Condition 18 of this permit for two years after closure to confirm the absence of ground water contamination. If monitoring results show that the ground water standards in Section 20.6.2.3103 NMAC are being exceeded, IPNM shall implement the contingency plan described in Condition 30 of this permit. Following notification from NMED that post-closure monitoring may cease, IPNM shall plug and abandon all monitoring wells in accordance with *NMED Guidelines for Monitoring Well Construction and Abandonment* (copy enclosed). When all post-closure requirements have been met, IPNM may request to terminate the discharge permit. [20.6.2.3107A(11) NMAC]

FINANCIAL ASSURANCE

38. IPNM shall maintain financial assurance in an amount \$3,641,986.00 to cover the cost of a third party to implement the closure plan required by Conditions 35 through 37 of this discharge permit as proposed in technical memorandum DP-010-2. The financial assurance instrument shall be a surety bond, approved by NMED and shall ensure that funds will be available to implement the closure plan if at any time after cessation of operation of the IPNM in-situ brine injection, extraction, evaporation and potash refining facility IPNM is unable, unwilling, or otherwise fails to implement closure of the facility. [20.6.2.3107A(11) NMAC]

39. Within 60 days prior to initiation of construction, IPNM shall execute the financial assurance instrument as proposed in technical memorandum DP-010-2. IPNM shall provide NMED with an original signed and notarized copy of the financial assurance instrument. The financial assurance instrument shall name NMED as the beneficiary. The instrument shall be maintained until the financial assurance is released in writing by NMED. [20.6.2.3107A(11) NMAC]
40. The financial assurance, including any revised financial assurance, shall meet the following standard requirements. [20.6.2.3107A(11) NMAC]
- 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. NMED shall be named as the sole beneficiary in the financial assurance instrument.
 - C. The financial assurance instruments shall remain in effect throughout the term of this discharge permit, including the post-closure period, and until released in writing 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 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 or other information.
 - E. No more than once every 12 months IPNM 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 IPNM prior to cancellation or non-renewal of the financial assurance. IPNM shall obtain an NMED-approved alternate financial assurance mechanism within 60 days of such notice. If IPNM fails to obtain alternate financial assurance within 60 days, the current financial

assurance shall become immediately payable to the standby trust fund.

- H. If NMED determines that implementation of the closure plan is required and that IPNM is unable or unwilling or will otherwise fail to conduct or complete the closure requirements of this 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 IPNM and to all financial assurance providers, 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 discharge permit and all applicable laws and regulations. NMED will also advise IPNM and all financial assurance providers, if applicable, of the conditions under which forfeiture may be avoided. Such conditions may include, without limitation, an agreement by IPNM, by a financial assurance provider, or by an NMED-approved third party to perform closure, including post-closure monitoring and maintenance, in accordance with this 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 standby 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, IPNM 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 discharge permit.
41. Within 30 days of NMED approval of a revised closure plan or post-closure measures, or upon determination that existing financial assurance is inadequate, IPNM shall submit to NMED for approval a revised closure cost estimate and financial assurance instruments. Within 30 days of NMED approval of the revised financial assurance instruments, IPNM shall execute the revised financial assurance instruments and submit signed, notarized copies to NMED. [20.6.2.3107A(11) NMAC]

GENERAL TERMS AND CONDITIONS

Record Keeping

42. IPNM shall maintain at its facility a written record of all data and information on monitoring of ground water, surface water, seepage, 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.
 - G. A description of the quality assurance and quality control procedures used.
43. Such data and information described in Condition 43 shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples. [20.6.2.3107A NMAC]
44. IPNM shall maintain a written record of any spills, seeps, or leaks of effluent, leachate or process fluids not authorized by this Discharge Permit. [20.6.2.3107A NMAC]
45. IPNM 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 the permitted area. [20.6.2.3107A NMAC]
46. 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, IPNM 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 IPNM. [20.6.2.3107A NMAC]
47. All such data, records, reports, and other documents generated pursuant to this Discharge Permit, shall be provided to NMED upon request. [20.6.2.3107A NMAC]

Inspection and Entry

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

- A. Enter at reasonable times upon IPNM's premises or at any other location where records are kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.
 - B. To inspect and copy at reasonable times, any records required to be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.
 - C. To inspect, at reasonable times, any facility, equipment (including monitoring and control equipment or treatment works), practices or operations regulated or required under this Discharge Permit, or under any federal or WQCC regulation.
 - 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 discharge.
49. 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

50. Within a reasonable time after a request from NMED, which time may be specified by NMED, IPNM shall provide NMED with any relevant information to determine whether cause exists for modifying, terminating, or renewing this Discharge Permit, or to determine whether IPNM is in compliance with this Discharge Permit. [20.6.2.3107D NMAC][74-6-9.B & E WQA]
51. 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. [20.6.2.3107D NMAC][74-6-9.B & E WQA]

Spills, Leaks and Other Unauthorized Discharges

52. This Discharge Permit authorizes only those discharges specified herein. Any discharge into ground water not authorized by this Discharge Permit is a violation of § 20.6.2.3104. NMAC. IPNM 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, as required by § 20.6.2.1203. NMAC. [20.6.2.1203 NMAC]

Modifications/Amendments

53. IPNM shall notify NMED of any changes to its process water 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. IPNM 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 discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit. [20.6.2.3107C NMAC]

Enforcement

54. 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 IPNM 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, IPNM waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [74-6 WQA]

Compliance with Other Laws

55. Nothing in this Discharge Permit shall be construed in any way as relieving IPNM of its obligation to comply with all applicable federal, State, and local laws, regulations, permits, or orders. [20.6.2 NMAC]

Liability

56. The approval of this Discharge Permit does not relieve IPNM 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

57. IPNM 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 IPNM 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

58. Prior to any transfer of ownership, control, or possession of the permitted facility or any portion thereof, IPNM shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Discharge Permit with the notice. IPNM 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

59. The effective date of this Discharge Permit is the date it is issued and signed by the Chief of the Ground Water Quality Bureau. The term of this Discharge Permit expires five (5) years from the date it was issued. To renew this Discharge Permit, the IPNM must submit an application for renewal at least 120 days before the expiration date. [74-6-5.H WQA][20.6.2.3109.H NMAC]

Issued this 12th day of July, 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 2: Monitoring Summary for DP-1681, IPNM In-situ Project. Monitoring reports are due by the last day of January, April, July and October of each year.

| Annual Sampling Frequency | Annual Reporting Frequency | Number of Sites | Sampling Description |
|---------------------------|----------------------------|---------------------------------------|---|
| 4 | 2 | 11 | Analyses for field parameters, general chemistry and metals in 10 monitoring wells and one windmill well; sampled quarterly. |
| 4 | 2 | 4 | Analyses for general chemistry and metals in 4 production wells; sampled quarterly. |
| 2 | 2 | 1 | Analyses for general chemistry and metals of pregnant brine at outfall to solar evaporation ponds, sampled semi-annually. |
| 52 | 4 | 1 | Weekly flow volumes of pregnant brine to the solar evaporation ponds using a totalizing meter; reported quarterly. |
| 12 | 2 | various | Inspect storm water impoundments, diversions and berms monthly for damage and erosion. |
| 4 | 2 | 1 | Electro-conductivity monitoring of solar pond leak detection system; conducted quarterly. |
| 4 | 2 | various | Threshold subsidence monitoring of monument locations; conducted quarterly. |
| 52 | 4 | various | Pressure and flow data for the pipeline leak detection system to be recorded, stored and reviewed weekly and reported quarterly; records maintained onsite. |
| 52 | Maintained onsite | various | Inspections conducted weekly on all pipelines and pumps; data recorded weekly and stored onsite. |
| 52 | 4 | All flood elevation monitoring sites. | Weekly flood elevation monitoring data recorded weekly and reported quarterly. |

Table 3: Ground Water and Surface Water Monitoring Parameters and Schedule, DP-1681

| Well Number | Field Parameters | Lab Parameters | Major Anions and Cations | RCRA Metals | Reporting Interval |
|---------------------------------------|--------------------------------|------------------------|--------------------------|-------------|--|
| IP-WW-001 | Water | Specific Conductivity | Sulfate | Arsenic | Quarterly January April July October |
| IP-WW-002 | Temperature | | Chloride | Barium | |
| IP-WW-003 | pH | | Nitrate+nitrite (as N) | Cadmium | |
| IP-WW-004 | Dissolved Oxygen | pH | Carbonate | Chromium | |
| IP-WW-005 | | | Bicarbonate | Lead | |
| IP-WW-006 | Specific Conductivity | Total Dissolved Solids | Sodium | Mercury | |
| IP-WW-007 | | | Potassium | Selenium | |
| IP-WW-008 | | | Calcium | | |
| IP-WW-009 | Oxidation /Reduction Potential | Ion Balance | Magnesium | | |
| IP-WW-010 | | | | | |
| Cowden Windmill | Static Water Level (Below TOC) | | | | |
| IP-WS-001 | Water | Specific Conductivity | Sulfate | Arsenic | Quarterly January April July October |
| IP-WS-002 | Temperature | | Chloride | Barium | |
| IP-WS-003 | pH | | Nitrate+nitrite (as N) | Cadmium | |
| IP-WS-004 | Dissolved Oxygen | pH | Carbonate | Chromium | |
| | Specific Conductivity | Total Dissolved Solids | Bicarbonate | Lead | |
| | Oxidation /Reduction Potential | | Sodium | Mercury | |
| | Static Water Level (Below TOC) | Ion Balance | Potassium | Selenium | |
| | | | Calcium | | |
| | | | Magnesium | | |
| | | | | | |
| PB Effluent Discharged to Solar Ponds | pH | Specific Conductivity | Sulfate | | Semi-annually January April July October |
| | Specific Conductivity | pH | Chloride | | |
| | | | Nitrate+nitrite (as N) | | |
| | | Total Dissolved Solids | Carbonate | | |
| | | Ion Balance | Bicarbonate | | |
| | | | Sodium | | |
| | | | Potassium | | |
| | | | Calcium | | |
| | | | Magnesium | | |

Table 3: CONTINUED

Ground Water and Surface Water Monitoring Parameters and Schedule, DP-1681

| | | | | | |
|--|--|------|------|------|--|
| Leach Lake Brine Injection Wells: IP-15, IP-17, IP-19, IP22, IP-29 and IP- 31; Extraction Wells: IP-16, IP-18, IP-20, IP-28, IP-30. | Water Level Elevation Water Temperature Specific Conductivity | None | None | None | Quarterly January April July October |
|--|--|------|------|------|--|



GARY E. JOHNSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

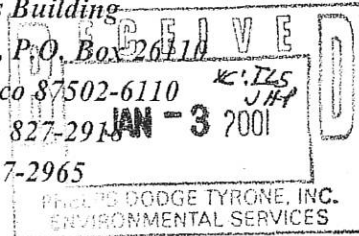
Harold Runnels Building

1190 St. Francis Drive, P.O. Box 26110

Santa Fe, New Mexico 87502-6110

Telephone (505) 827-2915

Fax (505) 827-2965



PETER MAGGIORE
SECRETARY

PAUL RITZMA
DEPUTY SECRETARY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

RECEIVED
PHELPS DODGE TYRONE, INC.

December 27, 2000

JAN - 2 2001

R.I. Pennington, President
Phelps Dodge Tyrone, Inc.
P.O. Box 571
Tyrone, New Mexico 88065

PRESIDENT'S OFFICE

Orig: TLS

c: RIP-JVF

1-2-00
slm

RE: Discharge Permit Approval for the Little Rock Mine, DP-1236

Dear Mr. Pennington:

Enclosed is the approved Discharge Permit for the Little Rock Mine, DP-1236. Approved discharges for the Little Rock Mine under DP-1236 include up to 1,000 gallons per minute (gpm) of water pumped from the Little Rock open pits; an annual average of 20 gpm of acidic seepage from the North Seep, South Seep, and Ohio Dam; and waste rock from mining operations. The facility is located approximately 10 miles south of Silver City in Sections 16, 17, and 20, T19S, R15W, Grant County. In approving this Discharge Permit, the New Mexico Environment Department has determined that the requirements of 20 NMAC 6.2.3109.C have been met.

If you have any questions, please contact Mary Ann Menetrey at 827-2944 or Mark Phillip at 827-0652.

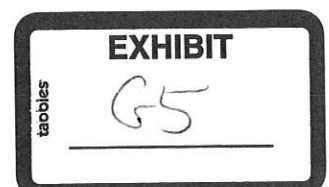
Sincerely,

Marcy Leavitt for:

Marcy Leavitt, Chief
Ground Water Quality Bureau

Enclosure: Discharge Permit Approval, DP-1236

cc: Ken Smith, Dist. Manager, NMED District 3
NMED Silver City Field Office
Kerrie E. Neet, Chief, Mine Regulatory Bureau
Mary Ann Menetrey, HPM, Mining Environmental Compliance Section
Mark Phillip, MECS



**DISCHARGE PERMIT
LITTLE ROCK MINE, DP-1236**

INTRODUCTION

Pursuant to Water Quality Control Commission (WQCC) Regulation 3109, the Discharge Permit application for DP-1236, submitted by Phelps Dodge Tyrone, Inc. (PDTI) for the discharge of up to 1,000 gallons per minute (gpm) of water pumped from the Little Rock Mine open pits (Little Rock Pit); 20 gpm annual average of acidic seepage from the North Seep, South Seep and Ohio Dam; and, waste rock from mining operations is hereby approved, subject to the conditions listed below. The facility is located approximately 10 miles south of Silver City in Sections 16, 17, and 20, T19S, R15W, Grant County. In approving this Discharge Permit, the New Mexico Environment Department (NMED) has determined that the requirements of 20 NMAC 6.2.3109.C have been met.

The approved Little Rock Mine operation is briefly described as follows:

Acidic seepage discharging from the pre-existing Copper Leach Stockpile will be collected at the North Seep, the South Seep, and Ohio Dam and piped to the 1X Tailing Impoundment or an alternative location approved by NMED. Approximately 92.7 million tons of waste rock will be removed from the Little Rock open pits (Little Rock Pit) during mining operations. The waste rock will be used as backfill for the Little Rock Pit, placed on the No. 10A Stockpile, used for site reclamation, or hauled to the Tyrone Mine for disposal dependent upon acid base accounting results. Dewatering water, consisting of ground water and surface water, will be pumped from the open pit to facilitate mining below the water table. The dewatering water will be pumped to the Tyrone Mine for use as make-up water. California Gulch surface water will be routed into the open pit during mining operations. Water collected in California Gulch behind the Ohio Mine Dam will be pumped or diverted to the Little Rock open pit as needed to prevent overtopping of the dam once the Little Rock Pit has been constructed. The pre-existing Copper Leach Stockpile will be removed and transferred to a Tyrone Mine leach or waste stockpile location approved by NMED within one year of commencement of mining operations. The open pits, former leach stockpile area, and any waste rock deposited by PDTI will be reclaimed in accordance with the site closure plan.

Ground water below the site ranges from a depth of approximately 20 to 320 feet, and has a total dissolved solids concentration of approximately 280 milligrams per liter.

The approved Discharge Permit consists of the materials submitted by PDTI dated July 21, 1997, July 30, 1997, May 15, 1998, November 20, 1998, September 30, 1999, and November 30, 1999. The discharge shall be managed in accordance with the approved Discharge Permit and is subject to the conditions listed below.

Approval of this Discharge Permit does not relieve PDTI of its responsibility to comply with the New Mexico Water Quality Act, WQCC Regulations, or any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

CONDITIONS

This Discharge Permit approval is subject to the following conditions.

MONITORING, REPORTING, AND OTHER REQUIREMENTS

1. PDTI shall conduct the following monitoring, reporting, and other requirements listed below in accordance with the WQCC Regulations at 20 NMAC 6.2.3107. PDTI may request a reduction in monitoring frequency, a change in location, and a change in analytical parameters for NMED approval after two years of quarterly monitoring, or in the event that sampling stations are destroyed or become inaccessible.

Sampling and Field Measurements

2. Ground Water Monitoring Wells. PDTI shall monitor ground water quality in all existing monitoring wells, and all monitoring wells installed after the issuance of this Discharge Permit. Samples shall be collected from each well once per quarter and analyzed for the water parameters listed in Condition 8 below. PDTI shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft) in all existing monitoring wells, and all monitoring wells installed after the issuance of this Discharge Permit, quarterly. Analytical results and depth to ground water measurements shall be reported as required in Condition 9 or 10 below. Existing monitoring well designations are: LRW-1, LRW-2, LRW-3, LRW-4, LRW-5, LRW-6, LRW-7.
3. Open Pits and Ohio Dam. PDTI shall monitor water quality in each discrete open pit and behind the Ohio Dam. Samples shall be analyzed for the water parameters listed in Condition 8 below. The volume of any water piped from the Ohio Dam, into and out of the Little Rock Pit, and within the Little Rock Pit shall be continuously measured using a totalizing flow meter and monthly meter readings shall be recorded. The volume of any water diverted from the Ohio Dam into the Little Rock Pit shall be estimated using SCS runoff calculations or another NMED approved method. Flows shall be recorded monthly for each flow component. Water depth and volume shall be measured and calculated quarterly for each discrete area of ponded water in pit bottoms. Ponded water shall be sampled and analyzed at the surface. If the pond depth is greater than 25 feet, one additional sample shall be collected at a depth within 5 feet of the pit bottom and analyzed. If the pond depth is greater than 70 feet, a third sample shall be collected from a point equal distance between the surface and bottom samples and analyzed. If the pond depth is greater than 140 feet, a third

and fourth sample shall be collected from points equally spaced between the surface and bottom samples and analyzed. Analytical results and monthly flow readings shall be reported as required in Condition 9 or 10 below.

4. California Gulch. PDTI shall monitor the water quality of surface water in California Gulch at each of the surface water collection ports outlined in Condition 12 below. Samples shall be analyzed for the water parameters listed in Condition 8 below. The surface water collection ports shall be checked after each precipitation event of 0.1 inch or greater at the Little Rock site; if a sample is present it shall be collected and analyzed. PDTI may request an increase in the minimum precipitation event that requires surface water collection port inspection with a demonstration of good cause. PDTI shall attempt to collect samples from the collection ports as soon as practicable after the precipitation event. No more than one surface water sample per port must be collected in a 24-hour period, and no more than six surface water samples per port must be collected per quarter. The volume of surface water from California Gulch that reports to the pit shall be estimated using SCS runoff calculations or another NMED approved method. PDTI may request for NMED approval the reduction or elimination of California Gulch surface water sampling and analysis once PDTI demonstrates, and NMED concurs, that runoff flow and geochemical nature have been characterized. Analytical results and California Gulch surface water volumes shall be reported as required in Condition 9 or 10 below.
5. Seep Water. PDTI shall monitor the flow rate and water quality of the Copper Leach Stockpile North Seep and South Seep. One sample shall be collected once per quarter from both the North Seep and South Seep and analyzed for the parameters listed in Condition 8 below. The total volume of water piped from the seep collection ponds shall be continuously measured using a totalizing flow meter and monthly meter readings shall be recorded. Analytical results and monthly meter readings shall be reported as required in Condition 9 or 10 below.
6. Springs. PDTI shall estimate the discharge rates of McCain Spring and Sugarloaf Spring quarterly. The discharge rates shall be reported as required in Condition 9 or 10 below.
7. Meteorological Data. PDTI shall monitor precipitation through installation of a precipitation tipping bucket station on-site within six months of permit approval. Precipitation (rain and snowfall) measurements shall be recorded on a data logger. Measurements shall be reported as required in Condition 9 or 10 below.

Analysis

8. All samples shall be analyzed in the field for temperature, pH, Eh, and specific conductance. All samples shall be analyzed semi-annually in the field for the $\text{Fe}^{3+}/\text{Fe}^{2+}$ redox couple after initiation of mining activities. All ground water and seep samples shall be analyzed for dissolved constituents. Surface water samples described in Conditions 3 and 4 shall be

analyzed for both dissolved and total constituents. All samples shall be laboratory analyzed for sodium (Na), potassium (K), calcium (Ca), magnesium (Mg), chloride (Cl), fluoride (F), carbonate (CO_3), bicarbonate (HCO_3), sulfate (SO_4), total dissolved solids (TDS), specific conductance, pH, aluminum (Al), arsenic (As), boron (B), selenium (Se), cadmium (Cd), cobalt (Co), chromium (Cr), copper (Cu), iron (Fe), manganese (Mn), nickel (Ni), zinc (Zn), and temperature.

Reporting

9. Prior to mining PDTI shall submit quarterly monitoring reports containing monitoring well laboratory analyses, surface water analyses (Ohio Dam and California Gulch only), water level data, potentiometric surface maps, leach pile collection pond seep quality, leach pile collection pond seep and Ohio Dam flow rates, spring discharge rates, and summaries of daily weather data. The quarterly reports shall be submitted to NMED by March 31, June 30, September 30 and December 31 of each year.
10. In addition to the requirements of Condition 9 above, after initiation of mining PDTI shall submit quarterly monitoring reports containing laboratory analyses, water balance calculations and pumping rates for the Little Rock Pit. Semi-annual reports shall provide an updated analysis on the effectiveness of pit dewatering on capturing ground water contamination. The quarterly reports shall be submitted to NMED by March 31, June 30, September 30 and December 31 of each year.

OPERATIONAL PLAN

11. PDTI shall notify NMED of any proposed changes in the pit configuration described in the *Closure/Closeout Plan for the Little Rock Mine* dated September 30, 1999 and related potential impacts to water quality. The notification shall be provided at least 90 days prior to implementation.
12. PDTI shall install three surface water collection ports in California Gulch at locations approved by NMED within three months of permit approval. One port shall be installed upstream of the South Seep. One port shall be installed between the precipitation plant and the Little Rock Pit. One port shall be installed below the Ohio Dam.
13. At least six months prior to initiation of Little Rock mining operations, PDTI shall submit for NMED review and approval a plan and schedule for additional monitoring and re-evaluation of the Little Rock Mine geochemical and hydrologic models for prediction of water quality in the proposed pit lake(s). The schedule shall include biannual evaluation of the necessity to re-run the flow and geochemical models. The modeling efforts shall incorporate planned pit configurations through time, planned mining timeframes, and the results of ground water contamination characterization outlined in Condition 24 below. Geochemical modeling shall address upgradient water conditions and wall rock interactions. NMED will approve or reject

the plan at least 60 days prior to the planned start of mine dewatering. No dewatering shall start at the Little Rock Mine before the plan has been approved by NMED. The plan shall address:

- A. The design of a monthly pit water balance. The water balance shall incorporate all data concerning inputs and outputs to the Little Rock Pit(s) described above and allow for the estimation of ground water inflow volumes.
 - B. The measurement or calculation of California Gulch flow into the Little Rock Pit(s).
 - C. Water quality sampling and analysis of all inputs and outputs to the Little Rock Pit(s), including California Gulch surface water and precipitation.
 - D. The installation of new and future replacement monitoring wells in accordance with Condition 14 below. The wells shall provide for monitoring of ground water drawdown and chemical composition surrounding the Little Rock Pit(s). The monitoring wells shall be in place and sampled prior to any dewatering at the Little Rock Mine. The wells shall not be mined out and shall be sampled during and after mining operations at the Little Rock Mine. If a monitoring well goes dry or fails due to blasting, the plan shall propose a well replacement time frame. PDTI shall include a proposal to monitor water levels in certain wells on a monthly basis to compare the actual and modeled drawdown during pit dewatering.
14. All new wells installed after issuance of this Discharge Permit shall be completed in accordance with NMED Monitor Well Construction and Abandonment Guidelines (copy enclosed). The final well locations, construction details, and estimated completion intervals shall be provided to NMED for approval prior to installation. PDTI shall notify NMED a minimum of seven (7) days prior to installation to allow NMED personnel the opportunity to be present at the time of installation. Lithologic and construction logs shall be submitted to NMED within sixty (60) days of completion. The northing, easting, and elevation of the top of the casing of the wells shall be surveyed to the existing mine grid to the nearest hundredth of a foot (0.01 ft). Northing and easting for UTM Zone 12 shall also be provided.
15. PDTI shall implement the following waste rock management plan:
- A. Non-acid generating waste rock removed from the Little Rock Pit shall be placed on the No. 9A Waste Stockpile in accordance with DP-435, temporarily on the No. 10A Waste Stockpile, in the Little Rock Pit as backfill, or on the Little Rock Mine site for reclamation purposes.
 - B. PDTI staff geologists shall continuously characterize the exposed rock and the drill cuttings during mining for operational purposes as described in the Waste Rock Handling Plan (Appendix E of the *Closure/Closeout Plan for the Little Rock Mine* dated September

30, 1999). If the rock or cuttings appear significantly different from the materials described in the handling plan then an ABA test will be performed on the material deemed to be significantly different to confirm the material's ABA character.

- C. Cuttings from one blast hole per bench shall be randomly selected and tested with an Acid Base Accounting (ABA) method approved by NMED, unless sulfide waste material is located within the area blasted for a given bench. If sulfide waste is located within the area blasted for a given bench, cuttings from one drill hole per blast for that bench shall be randomly selected and tested for ABA.
- D. If PDTI performs the ABA tests on-site, the first 10 samples taken for ABA testing shall be split and the duplicate samples sent to a private lab for analysis. After the first 10 samples, additional samples shall still be split and the duplicates held on-site until analytical results are verified. If PDTI performs on-site ABA analysis, PDTI shall submit for NMED approval at least four (4) months prior to the start of operations at Little Rock a QA/QC plan for the waste rock sampling and analysis which includes methods for ABA verification through time and a plan for statistical comparison of laboratory analytical results with on-site results.
- E. The ABA results of the cuttings for each bench shall determine how all material within the unit is handled, unless further characterization is done to define the material. Variations from this methodology shall be approved by NMED.
- F. If the result from any ABA test indicates material is potentially acid generating or net acid generating, then the waste material shall be placed on the No. 2A Leach Stockpile in accordance with DP-435 or another leach or waste stockpile location approved by NMED. Unless shown otherwise with humidity cell test results and approved by NMED, material shall be considered potentially acid generating or net acid generating if the ABA ratio of Acid Neutralizing Potential to Acid Producing Potential is less than 3:1. PDTI may request for NMED approval the alteration of material handling requirements once PDTI demonstrates, and NMED concurs, that material is non-acid generating and will not impact ground water quality by leaching of constituents of concern.
- G. Sulfide waste and sulfide leach material shall be placed on a Tyrone Mine leach stockpile unless PDTI demonstrates with humidity cell tests or an alternative testing method approved by NMED that leachate generated from sulfide materials will not result in exceedances of ground water quality standards if deposited without special handling procedures to prevent exceedances of standards. Alternatively, PDTI may submit a plan for NMED approval to dispose of sulfide materials in an existing waste rock stockpile that already contains sulfide waste rock, and the plan shall include special handling procedures for preventing exceedances of water quality standards.

- H. If humidity cell tests are run, the humidity cell test design shall be approved by NMED.
 - I. The results of the ABA testing shall be submitted to NMED quarterly in the monitoring reports submitted to NMED by March 31, June 30, September 30 and December 31 of each year. The ABA data shall include tables listing the bench of origin, the randomly assigned drill hole number, and the ABA results. Figures shall be included showing the benches that were blasted and the approximate location of the drill holes randomly selected for ABA testing. The benches and drill holes shall be identified for cross-reference to the tables.
16. PDTI shall apply the following to pipelines at the Little Rock Mine facility:
- A. The dewatering pipeline that transports Little Rock Mine pit water to the Tyrone Mine shall be inspected daily for leaks.
 - B. Any pipelines that gravity feed waters shall be inspected weekly for leaks.
 - C. Any pipelines that carry waters being pumped shall not operate at greater than 90% of the manufacturer's operational pressure capacity.
 - D. Any pipelines that carry waters being pumped shall, prior to operation and every five years thereafter, be pressure tested at 3 pound per square inch above the greatest operational pressure and shall hold the pressure for four (4) hours.
 - E. A log shall be kept recording any pipeline tests, the pipeline inspection time, date, pipeline status, and name of inspector.
 - F. PDTI shall provide NMED with the pipe manufacturer's operational specifications.
 - G. Each pipeline that carries water being pumped shall be fitted with a pressure gauge.
17. PDTI shall remove the pre-existing Copper Leach Stockpile in the following manner:
- A. When the haul road from the Tyrone Mine to the Little Rock Mine is completed, PDTI shall be committed to removing the Copper Leach Stockpile from the Little Rock Mine for placement on a Tyrone Mine leach or waste stockpile location approved by NMED. PDTI shall remove the entire Little Rock Copper Leach Stockpile, asphalt, and contaminated soils as practicable under the stockpile within eighteen (18) months of haul road completion or within the first year of mining.
 - B. When and wherever removed, the asphalt liner and contaminated soils shall be removed to the greatest extent practicable.

- C. Non-acid generating waste rock from the Little Rock Pit shall be placed as cover on the former Copper Leach Stockpile and precipitation plant areas. The non-acid generating waste rock shall be graded to a stable configuration and revegetated. Surface water sources will be controlled through revegetation and erosion control measures.
 - D. After elimination of seepage or eight consecutive quarters of the Copper Leach Stockpile North Seep and South Seep meeting WQCC ground water standards, PDTI shall remove the seep collection ponds to a minimum depth of three feet below the ponds unless bedrock does not allow such excavation with the equipment used.
 - E. Within sixty (60) days following completion of removal of the Copper Leach Stockpile, PDTI shall submit a report for NMED approval documenting removal activities.
18. Within forty-five (45) days from the issuance date of NMED approval through discharge permit modification or temporary permission, PDTI shall complete modification of the Ohio Dam to pump or drain water through piping to the No. 1X Tailing Impoundment or an alternate discharge point approved by NMED. Discharge to the No. 1X Tailing Impoundment shall not begin until DP-27 has been modified or temporary permission granted by NMED. If discharge to the No. 1X Tailing Impoundment is approved by NMED, PDTI shall install a pipeline through the bottom of the Ohio Dam to collect seepage behind the dam. The pipeline shall gravity feed to the No. 1X Tailing Impoundment. The pipeline shall be designed to keep the level of water behind the dam to a minimum during normal flow conditions.
19. Within two (2) days of Little Rock Pit dewatering commencing, Ohio Dam water shall be pumped or diverted into the dewatering pit. Until it is mined out, water from the Ohio Dam shall be pumped or diverted into the Little Rock Pit during mining operations. PDTI shall manage as necessary to avoid a discharge over the top of the Ohio Dam.
20. The Little Rock Pit shall be dewatered at an average rate of 500 gpm with local storm events possibly requiring up to 1000 gpm. The dewatering water shall be pumped to the Tyrone Mine for use as make-up water.
21. Wherever there is the possibility of impacting ground water, PDTI shall maintain all structures, facilities, supplies, and equipment whose failure may impact ground water.

CORRECTIVE ACTION PLAN

22. PDTI shall reconstruct the seepage collection system below the Copper Leach stockpile within 45 days of NMED approval to transport the seepage to the No. 1X Tailing Impoundment or an alternative location through discharge permit modification or temporary permission. The pipeline and inlet for the collection system shall be designed and constructed to minimize standing water in the existing ponds. Prior to June 2001, PDTI shall

conduct an analysis of the collection system, including the ponds, to ensure that the system is capable of containing a 100-year 24-hour storm event. A schedule shall be proposed for NMED approval for modifying the collection system, including the seepage collection ponds, if necessary to provide adequate containment and protect water quality. The schedule shall address plans for replacement or repair of the pond liners as necessary to protect water quality. Any proposed plans for liner or collection system replacement or repair shall address methods for periodic inspections to ensure future protection of ground water.

23. PDTI shall complete pipeline construction to allow for collection of seepage from the North and South Seeps and the Ohio Dam within forty-five (45) days of receiving temporary permission to discharge seepage to the 1X Tailing Impoundment or alternate location approved by NMED. Each pipeline shall be fitted with a totalizing flow meter.
24. Within ninety (90) days of this Discharge Permit issuance, PDTI shall submit a site investigation plan for NMED approval to characterize ground water and surface water contamination associated with the pre-existing Copper Leach Stockpile. The site investigation shall be consistent with 20 NMAC 6.2 Subpart IV. The plan shall include:
 - A. Horizontal and vertical characterization of the contaminated soil surrounding the Copper Leach Stockpile, precipitation plant, California Gulch, and Ohio Dam;
 - B. Horizontal and vertical characterization of the contaminated ground water associated with the Copper Leach Stockpile and precipitation plant;
 - C. A schedule for characterization actions and final report submittal for NMED approval. The final characterization report shall propose various mitigation actions which may include monitored natural attenuation in accordance with 20 NMAC 6.2 Subpart IV.
25. PDTI shall operate the open pit dewatering system in a manner that maximizes capture of contaminated ground water in fractured bedrock. If the studies described above in Condition 24 above indicate that dewatering the Little Rock Pit will not result in achieving ground water standards, then PDTI shall submit for NMED approval a ground water contamination mitigation plan, including a schedule for implementation, within sixty (60) days of the submittal of the report described in Condition 24.C above. The ground water mitigation plan shall be consistent with 20 NMAC 6.2 Subpart IV.
26. Unless mining operations have begun, PDTI shall commence approved ground water mitigation described in the final characterization report of Condition 24.C no later than this Discharge Permit's expiration date if NMED determines that mitigation is warranted based on the results of Conditions 24 and 25 above.

CONTINGENCY PLAN

27. Based on the results of the flow and geochemical modeling in Condition 13 above, PDTI shall submit a pit contingency plan and schedule for NMED approval if modeling results predict ground or surface water quality standards in the proposed pit lake to be exceeded. The pit contingency plan shall provide detailed and specific closure alternatives for the open pits, including additional backfilling, to prevent exceedance of water quality standards.
28. In accordance with 20 NMAC 6.2.1203, PDTI shall report and remedy any discharge not approved in this Discharge Permit. This requirement includes, but is not limited to, immediate corrective action to contain and remove or mitigate the discharge, oral notification of NMED within twenty-four (24) hours after discovery of the discharge, written notification of NMED within seven (7) days after discovery of the discharge, and submittal of a corrective action report within fifteen (15) days after discovery of the discharge. The cleanup of any unapproved discharge shall be thoroughly documented through photographs, truck haulage records, and field notes. This documentation shall be included in the corrective action report submitted to NMED.
29. If ground water standards are exceeded during the term of the discharge permit or during closure of the permitted facility in a well that previously did not exceed standards, or if PDTI discovers a significant increase in the extent or magnitude of ground or surface water contamination or a significant increase in discharge volume from any seep or existing discharge point, PDTI shall notify NMED within five (5) days and shall collect a confirmation sample from the monitor well within fifteen (15) days to confirm the initial sample results. Upon confirmation of groundwater contamination, PDTI shall submit a corrective action plan and schedule to NMED. The corrective action plan shall include a site investigation to define the source, nature and extent of ground water contamination and a proposed abatement option. The site investigation and abatement option shall be consistent with 20 NMAC 6.2 Subpart IV. The corrective action plan and schedule shall be submitted to NMED for approval within thirty (30) days of confirmation of ground water contamination, and shall be initiated within thirty (30) days of NMED approval.
30. PDTI shall submit an Emergency Response Plan for NMED approval that identifies operational parameters and provides contingencies for operational failures associated with pumping water from the Ohio Dam to the Little Rock Pit and dewatering of the Little Rock Pit. The plan shall include normal operational water levels for all impoundments and contingencies to be implemented if water level elevations are exceeded. The plan shall include reporting of spills and unauthorized discharges in accordance with 20 NMAC 6.2.1203. The plan shall be submitted for NMED approval within sixty (60) days of the date of this Discharge Permit issuance.
31. Within six (6) months of Discharge Permit issuance, PDTI shall submit for NMED approval a comprehensive spill prevention and contingency plan for the Little Rock Mine.

CLOSURE PLAN

Non-Mining Scenario

32. If the Little Rock pit is not mined, PDTI shall reclaim the pre-existing Copper Leach Stockpile in a manner that is protective of water quality. Closure of the Copper Leach Stockpile shall, at a minimum, consist of the following:
- A. The Copper Leach Stockpile outcrops shall be regraded to slope angles determined by the cover design study described in Condition 33 below. If the stockpile is closed prior to completion of the study described in Condition 33, the Copper Leach Stockpile shall be regraded to slopes of 3(H):1(V) as provided for in the financial assurance described in Condition 46. The entire pile shall be reshaped to allow for positive runoff and to eliminate low spots. The pile shall be covered with plant growth medium to a depth based upon the results of the cover design study outlined in Condition 33 below.
 - B. Cover material for the Copper Leach Stockpile shall be obtained from the existing west canyon and north pit stockpiles, or an alternative location as determined by the cover design study outlined in Condition 33 below. Any material from the West Canyon Stockpile used to cover the Copper Leach Stockpile shall be free from scrap iron and refuse.
 - C. Following placement of cover the Copper Leach Stockpile shall be revegetated to meet closure requirements under the WQCC Regulations. Revegetation shall be performed as described in the *Closure/Closeout Plan for the Little Rock Mine* dated September 30, 1999, the *Interim Technical Standards for Revegetation Success* dated November 30, 1999, and any Mining and Minerals Division (MMD) amendments to either document. PDTI shall submit to NMED any submittals approved by the MMD associated with revegetation of the Copper Leach Stockpile. The revegetation plan shall incorporate findings of the study outlined in Condition 33 below, as appropriate to protect water quality.
 - D. Surface water shall be diverted around the Copper Leach Stockpile. The surface water diversion shall be built to accommodate a 100-year, 24-hour storm. A licensed Professional Civil Engineer shall approve and stamp the diversion plans. Detailed engineering designs for diversions and water control structures shall be submitted to NMED for approval at least 60 days prior to commencement of reclamation.
 - E. Collection, treatment, and disposal of seepage from the Copper Leach Stockpile shall continue until, at a minimum, seepage has been eliminated or seepage water meets ground water standards as defined by 20 NMAC 6.2.4103. After seepage collection

ceases, the Copper Leach Stockpile seep ponds shall be decommissioned and closed.

- F. Ground water and surface water contamination associated with the Copper Leach Stockpile shall be mitigated in accordance with the Corrective Action Plan described in Condition 24 above. The mitigation plan shall be consistent with the requirements and provisions of 20 NMAC 6.2.4101, 4103, 4106.C, D, and E, 4107, and 4112.
 - G. The Ohio Dam shall be removed when a determination is made by NMED that the dam is no longer necessary for collection of contaminated ground water and surface water in accordance with corrective actions described in Condition 24.
33. PDTI shall submit a work plan for a comprehensive cover design evaluation by December 31, 2001 for NMED approval. The purpose of the cover design evaluation is to evaluate cover designs and slope angles for the Copper Leach Stockpile to meet closure requirements under the WQCC regulations and achieve the objectives for closeout requirements under the New Mexico Mining Act. The study may incorporate elements of any similar studies that may be performed for other mining operations but shall include the collection of any site-specific data as necessary to reflect differences between the Little Rock Copper Leach Stockpile and other areas where studies were conducted. The study shall investigate the use of the North Pit and West Canyon Stockpiles as cover material to minimize infiltration and long-term seepage to the extent practicable. If these materials are found to be ineffective in meeting objectives, then other materials shall be evaluated. The work plan shall be site specific and shall address cover design and thickness, physical stabilization, and revegetation. The work plan shall include a schedule for completion of the study and submittal of a revised closure plan for the pre-existing Copper Leach Stockpile. The work plan shall also include a schedule for NMED approval for final closure of the Copper Leach Stockpile following submittal of the revised closure plan.
34. The precipitation plant area shall be closed in a manner consistent with mitigation actions described in Condition 17 above. Closure shall include grading the precipitation plant area to a stable configuration, covering the area with non-acid generating plant growth medium, and revegetation in accordance the *Closure/Closeout Plan for the Little Rock Mine* dated September 30, 1999, the *Interim Technical Standards for Revegetation Success* dated November 30, 1999, and any MMD amendments to either document.
35. If mining does not occur, after reclamation activities in the Little Rock Pit have been completed, PDTI shall remove sufficient materials from the California Gulch drainage segment within the open pit area to allow surface water flows to continue down the drainage and not be partially contained in the pit area.
36. PDTI shall remove all refuse and scrap metal from the West Canyon Stockpile.
37. Post-closure monitoring of seepage, ground water, surface water, and meteorological

conditions shall continue for a minimum period of thirty (30) years after completion of final closure construction activities. Monitoring shall be conducted in accordance with monitoring and reporting requirements described in Conditions 2, 3, 4, 5, 7, 8, and 9. PDTI may request a reduction in monitoring frequency, change in location, and a change in analytical parameters for NMED approval after two years of quarterly monitoring.

Mining Scenario

38. PDTI shall remove the pre-existing Copper Leach Stockpile as described in Condition 17 above. Approximately 750,000 cubic yards of non-acid generating growth medium shall be used to cover and reclaim the area of the former stockpile. Cover placement shall begin as soon as practicable after removal of the stockpile.
39. PDTI shall continue to operate and maintain the seepage collection ponds until seepage is eliminated or water quality of the seepage indicates that the seepage will not degrade ground water above ground water standards as defined by 20 NMAC 6.2.4103. After the seepage collection has ceased, the ponds shall be decommissioned and reclaimed.
40. PDTI shall backfill the east and west sections of the Little Rock Pit as outlined in the *Closure/Closeout Plan for the Little Rock Mine* dated September 30, 1999. The source of backfill shall be non-acid generating waste rock removed during operations from the open pit areas and from the 10A Stockpile. PDTI shall submit an analysis of the feasibility of utilizing additional material from the 10A Stockpile for increased partial backfilling of the Little Rock Pit four (4) months prior to the initiation of mining activities. Pit backfill located above the water table shall be stabilized and revegetated in accordance with the *Closure/Closeout Plan for the Little Rock Mine* dated September 30, 1999, the *Interim Technical Standards for Revegetation Success* dated November 30, 1999, and any MMD amendments to either document.
41. Post-closure monitoring of seepage, ground water, and surface water shall continue for a minimum of thirty (30) years after completion of final closure construction activities. The monitoring shall be conducted in accordance with monitoring and reporting requirements specified in Conditions 1 through 10. The monitoring shall also include sampling at depth of each distinct pit lake. Monitoring will be conducted in accordance with 20 NMAC 6.2.3107. PDTI may request a reduction in monitoring frequency, change in location, and change in analytical parameters for NMED approval after two years of quarterly monitoring.
42. PDTI shall inform NMED of any cessation of mining operations that are not part of normal operating procedures within thirty (30) days of the cessation. Unless operations resume within 180 days of the cessation, or NMED grants an extension, PDTI shall begin implementing the closure plan within 180 days of the cessation. PDTI may request an extension by submitting a written request within 150 days after the cessation. The request shall describe the measures that will be taken if the extension is granted so that a delay in

implementing the closure plan will not cause applicable ground water or surface water quality standards to be exceeded. An extension from NMED will be granted for a period up to the remaining term of the discharge permit if it finds that the delay in implementing the closure plan will not cause applicable ground water or surface water standards to be exceeded as a result of the extension.

General

43. PDTI shall visually inspect reclaimed lands monthly 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 will be inspected in accordance with professionally recognized 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 one-day period. PDTI shall report evidence of significant rill, gully, or sheet erosion on any reclaimed area within twenty-four (24) hours of discovery. PDTI shall provide a follow-up report within thirty (30) days of the discovery describing the nature and extent of erosion and an erosion repair plan for NMED approval.
44. PDTI shall perform post-closure monitoring of revegetation on areas reclaimed pursuant to this Discharge Permit to ensure that the revegetation is protective of water quality. Post-closure revegetation monitoring shall be performed, at a minimum, pursuant to time frames and monitoring requirements approved by MMD to meet NMMA requirements. PDTI shall provide a summary 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 Discharge Permit.
45. If changes in the proposed pit configuration or the results of any studies described in this Discharge Permit indicate additional or alternative closure actions are necessary to protect ground water and surface water in accordance with applicable water quality standards, PDTI shall petition to amend or modify DP-1236 to ensure protection of ground water and surface water.

Financial Assurance

46. Within forty-five (45) days after the date of issuance of this Discharge Permit, PDTI shall submit a draft of its proposed financial assurance instrument(s) in the amount of \$1,355,400 for the cost of a third party to implement the closure plan for the non-mining scenario as described in Conditions 32 through 37 above. The cost estimate is based upon covering the existing leach stockpile with at least three feet of non-acid generating growth medium and regrading of the stockpile out slopes to 3(H):1(V). The proposed financial assurance

instrument(s) must be worded as in the appropriate forms provided by NMED, and shall incorporate the provisions of Condition 48 below. Within forty-five (45) days of NMED approval of the draft financial assurance instrument(s), PDTI shall implement the financial assurance.

47. At least ninety (90) days prior to removal of any overburden from the Little Rock Mine, or upon a determination by NMED that the existing financial assurance is inadequate, PDTI shall propose a revised closure cost estimate and financial assurance instrument(s) that incorporates the provisions of Condition 48 below. If mining is initiated the revised cost estimate must provide for the cost of a third party to implement the closure plan for the mining scenario as described in Conditions 38 through 42 above. Within forty-five (45) days of NMED approval of the revised financial assurance instrument(s), PDTI shall implement the financial assurance.

48. General financial assurance requirements are as follows:

- 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 in the amount of 15 percent of the direct costs, and the indirect costs of NMED oversight and administration of closure plan implementation. NMED's indirect cost rate is set by NMED at a fixed rate each fiscal year, and will be provided to PDTI.
- b. Except as provided below, NMED shall be named as the sole beneficiary in the financial assurance instrument(s). PDTI may select a joint financial assurance instrument to meet the requirements of NMED and other agencies who may require financial assurance, including the New Mexico Energy, Minerals and Natural Resources Department (EMNRD), the United States Bureau of Land Management, and the United States Forest Service. If a joint instrument(s) is selected, each of the agencies who so desires shall be named as joint beneficiaries and the joint instrument(s) must meet the requirements of all of the agencies.
- c. Within 45 days of execution and implementation of the financial assurance instrument(s), PDTI shall establish a Standby Trust, which names NMED (or NMED and other agencies, as appropriate, for joint financial assurance) as the beneficiary. The Standby Trust Agreement shall be worded as in the form provided by NMED, or as otherwise agreed by NMED. The Standby Trust shall be maintained until the financial assurance is released. All amounts forfeited under DP-1236 shall be deposited directly into the Standby Trust.
- d. The financial assurance instrument(s) shall remain in effect throughout the term of the Discharge Permit 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 shutdown of facilities covered under DP-1236.

- e. 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.
- f. No more than once every 12 months, PDTI may request that NMED review remaining closure measures. The request for closure review shall describe the closure measures completed and shall contain a 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 required amount of financial assurance to reflect the revised cost estimate.
- g. 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.
- h. The financial assurance shall include a provision, which requires the financial assurance provider to provide at least 120 days written notice to NMED and PDTI prior to cancellation or non-renewal of the financial assurance. PDTI shall obtain an NMED-approved alternate financial assurance mechanism within (sixty) 60 days of such notice. If PDTI fails to obtain alternate financial assurance within sixty (60) days, the current financial assurance shall become immediately payable to the Standby Trust.
- i. If NMED determines that implementation of the closure plan is required in accordance with the terms of this Discharge Permit and that PDTI is unable or unwilling or will otherwise fail to conduct or complete the closure requirements of this 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 PDTI and to the surety informing them of the determination for 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 Discharge Permit and all applicable laws and regulations. NMED will also advise PDTI and the surety of the conditions under which forfeiture may be avoided. Such conditions may include, without limitation, an agreement by PDTI, by a surety, or by another person, to perform closure, including post-closure monitoring and maintenance, in accordance with this 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 Standby Trust. Forfeited funds shall be used to complete

performance of closure. If forfeited amount is insufficient, PDTI 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.

- j. The financial assurance shall be released or modified when the NMED determines by closure review that closure measures covered by the financial assurance have been completed according to the closure plan requirements of this Discharge Permit.

GENERAL TERMS AND CONDITIONS

49. PDTI shall request a modification to this permit for any activity that may result in a change in the quality, quantity, or location of any discharge.
50. If PDTI's mine plan includes a new water contaminant discharge or alters an existing water contaminant discharge, they shall file a notice of intent to discharge in accordance with Section 1201 of the WQCC Regulations, 20.6.2 NMAC.

Record Keeping

51. PDTI shall maintain at its facility a written record of all data and information on monitoring of ground water, surface water, seepage, 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.
52. Such data and information shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples.

53. PDTI shall maintain a written record of any spills, seeps, or leaks of effluent, leachate or process fluids not authorized by this Discharge Permit.
54. PDTI 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 Little Rock Pit dewatering water, Ohio Dam water, and Copper Leach Stockpile seep water.
55. 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, PDTI shall retain copies of all data, records, reports, and other documents generated pursuant to this Discharge Permit, including those listed in Conditions 49 through 52 above. Such record retention period may be increased by NMED at any time upon written notice to PDTI. Notwithstanding the foregoing, NMED may approve a request by PDTI showing good cause why PDTI should be relieved of the obligation to retain specific records. If NMED denies the request, it will state the reasons for the denial. Such denial shall not be subject to appeal to the WQCC or any court.
56. All such data, records, reports, and other documents, including those listed in Condition 49 through 52 above, shall be provided to NMED upon request.

Inspection and Entry

57. In accordance with the WQA, § 74-6-9.B and E, and the WQCC Regulations at 20 NMAC 6.2.3107.D, PDTI shall allow any authorized representative of NMED, upon the presentation of credentials, to enter any property or premises owned or controlled by PDTI 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 Discharge Permit or pursuant to State or federal water quality regulations, including those listed in Conditions 49 through 52 above.
 - 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 Discharge Permit or by State or federal water quality regulations.
 - C. To sample or monitor any leachate, water contaminant, effluent, or receiving ground water or surface water at any location before, after, or during discharge.
 - D. To sample or monitor any well or other collection system.

Duty to Provide Information

58. In accordance with the WQA § 74-6-5.I(4) and 74-6-9.B and the WQCC Regulations at 20 NMAC 6.2.3107.D, within a reasonable time after a request from NMED, which time may be specified by NMED, PDTI shall provide NMED with any relevant information to determine whether cause exists for modifying, terminating, or renewing this Discharge Permit, or to determine whether PDTI is in compliance with this Discharge Permit.
59. 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.

Spills, Leaks and Other Unauthorized Discharges

60. This Discharge Permit authorizes only those discharges specified herein. Any discharge into ground water not authorized by this Discharge Permit or any other PDTI DP is a violation of the WQCC Regulations at 20 NMAC 6.2.3104. PDTI 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 as required by 20 NMAC 6.2.1203.

Modifications

61. Pursuant to 20 NMAC 6.2.3107.C, PDTI 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. PDTI shall obtain NMED approval, as a modification to this Discharge Permit pursuant to 20 NMAC 6.2.3109.E, F, or G, 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 Discharge Permit.

Transfer

62. Pursuant to 20 NMAC 6.2.3111, prior to any transfer of ownership, control, or possession of the Little Rock or Tyrone Mine or any portion thereof, PDTI shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Permit with the notice. PDTI 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

63. 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 PDTI 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, PDTI waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit.

Compliance with Other Law

64. Nothing in this Discharge Permit shall be construed in any way as relieving PDTI of its obligation to comply with all applicable federal, State, and local laws, regulations, permits, or orders. PDTI does not waive any rights under such applicable federal, State, and local laws, regulations, permits, or orders except as expressly provided in this Discharge Permit.

Other Requirements

65. The approval of this Discharge Permit does not relieve PDTI of liability should operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations.

Right to Appeal

66. Pursuant to the WQA § 74-6-5.N, PDTI 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 PDTI receives this Discharge Permit. Unless a timely petition for a hearing is made, the decision of NMED shall be final.

Term

67. Pursuant to WQA § 74-6-5.H, and 20 NMAC 6.2.3109.H, the term of this Discharge Permit is

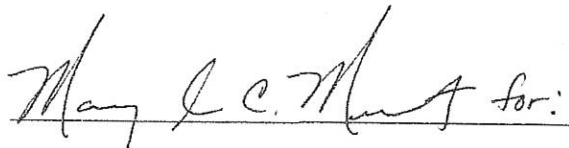
Little Rock Mine, DP-1236

December 27, 2000

Page 21

five (5) years, and the Permit will automatically terminate five (5) years from the date it is issued. To renew this Discharge Permit, PDTI must submit an application for renewal at least 120 days before that date.

ISSUED this 27th day of December, 2000

 for: _____

MARCY LEAVITT

Chief Ground Water Quality Bureau

New Mexico Environment Department



NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

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William C. Olson, Bureau Chief



RON CURRY
Secretary
JON GOLDSTIEN
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

February 29, 2008

Anne Wagner, Manager
Environmental and Health Services
Questa Mine, Chevron Mining Inc.
P.O. Box 469
Questa, NM 87556

RE: Discharge Permit Renewal and Modification, Chevron Mining Inc. Tailing Disposal Facility, DP-933.

Dear Anne Wagner:

The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit Renewal and Modification, DP-933 to Chevron Mining, Inc. (CMI) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC.

The Discharge Permit Renewal and Modification contains terms and conditions that shall be complied with by CMI 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 Renewal and Modification does not relieve CMI of its responsibility to comply with the WQA, WQCC Regulations, or 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, this Discharge Permit Renewal shall expire on March 01, 2013. You must submit an application for renewal at least 120 days before the permit expiration date.

Sincerely,

William C. Olson, Chief



Anne Wagner, Manager, CMI
February 29, 2008
Page 2
Ground Water Quality Bureau

WCO:jrm

Enclosure: Discharge Permit DP-933

cc: Mary Ann Menetrey, Program Manager, MECS (encl)
Karen Garcia, Chief, Mine Regulatory Bureau (encl)
Brian Shields, Amigos Bravos
Mark Purcell, EPA

**DISCHARGE PERMIT RENEWAL AND MODIFICATION
CHEVRON MINING INC. TAILING DISPOSAL FACILITY, DP-933
February 29, 2008**

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification, DP-933, to Chevron Mining Inc. (CMI) formally known as MolyCorp Inc. 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 original Discharge Plan was approved in the Final Order dated February 26, 1997, and NMED issued a modified Discharge Permit to include a closure plan and financial assurance on November 29, 2000.

The NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants at the CMI Tailing Disposal Facility (Facility) which may move directly or indirectly into ground 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; protect those segments of surface waters that are gaining because of ground water inflow; ensure that surface water quality standards are not being violated presently or will not be violated in the future; to abate pollution of ground and surface water; and protect public health. In issuing this Discharge Permit, the NMED has determined that the requirements of 20.6.2.3109.C NMAC have been met.

Activities that Produce the Discharge

CMI operates an underground molybdenum mine, which produces tailings from the ore refining process. Tailings produced during the milling of molybdenum ore are transported from the mill to the Tailing Disposal Facility in two 44,600-foot long rubber-lined pipelines in a slurry of approximately 38% solids by weight. The Tailing Disposal Facility consists of two Tailing Impoundments, covering approximately 1000 acres, associated pipelines and sumps, and a seepage collection system. CMI is permitted to discharge up to 22,000 tons per day of tailings to the Tailing Impoundments at the Facility.

Water from various sources at the CMI Questa Mine (Mine Water) is also discharged to the Tailings Disposal Facility via the tailings pipeline. This water includes water pumped from the underground mine, water diverted from the Red River, storm water collected at the mine and mill site, water pumped from the CMI supply wells, water and tailings removed from the upper and lower emergency dump sumps, ground water collected from extraction wells GWW-1, GWW-2, and GWW-3, and seepage from the collection system located at Springs 13 and 39. Prior to discharge, certain portions of the water are pumped to the mill where they are treated with lime to adjust pH between 6 and 9 standard units.

Seepage from the tailings and Mine Water deposited at the Tailing Disposal Facility moves directly or indirectly into ground water. The Tailing Impoundments at the Facility are unlined and were constructed in two deeply incised arroyos which trend in a southwesterly

direction towards the Red River. Although CMI operates a seepage interception system below Tailing Impoundments No. 1 and No. 4 to intercept the seepage from the Tailing Impoundments, it does not currently capture all the seepage. Seepage from the Facility has caused ground water pollution in concentrations in excess of the standards of 20.6.2.3103NMAC.

Tailings seepage water, extracted contaminated ground water, and decant water from the tailings is collected and may be discharged to the Red River pursuant to the existing National Pollutant Discharge Elimination System (NPDES) permit (Permit No. NM0022306) issued by EPA or back to the Facility pursuant to this permit. Decant water is processed in an Ion Exchange (IX) plant, when necessary, to meet NPDES limitations.

Location of the Discharge

The Tailings Disposal Facility is located approximately one mile west of Questa in Sections 25, 26, 35, and 36, T29N, R12E, and Section 2, T28N, R12E. The tailing pipelines and emergency dump sumps are located within Sections 31, 32, and 33, T29N, R13E, and Section 6, T28N, R13E, Taos County.

Quantity, Quality, and Flow Characteristics of the Discharge

The permitted discharge consists of the tailings produced from the milling operation and the disposal of Mine Water from the CMI Questa Mine. The maximum discharge rate for tailing solids is 22,000 tons per day and the maximum discharge rate for Mine Water is 12,960,000 gallons per day. The tailing discharge contains pyrite that, when oxidized, may produce acid rock drainage. This acid rock drainage has the potential to lower the pH of the pore water and leach metals from the tailing material. The tailings water contains contaminants that exceed water quality standards set forth in WQCC Regulations 20.6.2.3103 NMAC for fluoride, manganese, molybdenum, sulfate, and total dissolved solids. The treated Mine Water discharge contains contaminants that may exceed water quality standards set forth in WQCC Regulations 20.6.2.3103 NMAC for fluoride, manganese, molybdenum, sulfate, and total dissolved solids.

Characteristics of Ground Water

The ground water below the Tailings Disposal Facility has a total dissolved solids concentration of approximately 190 milligrams per liter. The depth to ground water below the Facility ranges from approximately 20 to greater than 200 feet below ground surface.

General

CMI's Discharge Plan consists of the materials submitted by Molycorp Inc. dated August 27, 2001, February 19, 2002, February 10, 2005, June 22, 2005, and February 8, 2006. In addition, the Discharge Plan includes information and materials submitted as part of the original Discharge Plan approved in the Final Order dated February 26, 1997 and modified

on November 29, 2000. The discharge shall be managed in accordance with the Discharge Plan as conditioned by this Discharge Permit.

The modification of this Discharge Permit includes the additional discharge to the Facility of waters from storm water collection at the mine site, current extraction wells (GWW-1, GWW-2, and GWW-3), and seepage from the collection system located at Springs 13 and 39 along the Red River. Modification of DP-933 also includes lining the upper sump, and abatement of ground water contamination in excess of water quality standards set forth in 20.6.3103 NMAC. There are other changes from the previously issued Discharge Permit that are not permit modifications within the meaning of 20.6.2.7 NMAC.

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 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 implementing abatement of water pollution.

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

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. CMI is a "person" within the meaning of the WQA, NMSA 1978, § 74-6-2(H).
2. CMI is discharging effluent or leachate at the Tailing Disposal Facility so that such effluent or leachate may move directly or indirectly into ground water within the meaning of 20.6.2.3104 NMAC.
3. The ground water beneath the Tailing Disposal Facility has an existing concentration of 10,000 milligrams per liter or less of total dissolved solids within the meaning of 20.6.2.3101.A NMAC.
4. The discharge at the Tailing Disposal Facility is not subject to any of the exemptions of 20.6.2.3105 NMAC.
5. The Tailings Disposal Facility is located at a place of withdrawal of water for present or reasonably foreseeable future use within the meaning of the WQA, 1978 NMSA, § 74-6-5(E)(3), and the WQCC Regulations at section 20.6.2.3103 NMAC.

6. The discharge of effluent or leachate from the Tailing Disposal Facility has caused the contamination of ground water in excess of the water quality standards in the WQCC Regulations at section 20.6.2.3103 NMAC.
7. CMI is required to prevent and abate ground water and surface water contamination pursuant to sections 20.6.2.3107 and 3109 NMAC.

III. DEFINITIONS

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

"EPA" means the United States Environmental Protection Agency.

"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 subsurface water.

"Discharge Permit" or "DP-933" means, unless otherwise specified, this Discharge Permit DP-933 including any documents incorporated herein by reference.

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

"Molycorp" means Molycorp, Inc., a Delaware corporation doing business in New Mexico, and any successors or assigns. Effective August 31, 2007 Molycorp Inc. merged with Chevron Mining Inc., with Chevron Mining being the surviving entity.

"CMI" means Chevron Mining, Inc., a Missouri corporation doing business in New Mexico, and any successors or assigns.

"CMI Questa Mine" means the molybdenum mine and milling facility owned and operated by CMI located 3.5 miles east of the Village of Questa on State Highway 38 in Taos County, New Mexico and all surrounding property over which CMI has an ownership, interest or a leasehold interest.

"Mine Water" means water pumped from the underground mine, water diverted from the Red River, storm water collected at the mine and mill site, water pumped from the CMI supply wells, water pumped from the emergency upper and lower dump sumps, water collected from extraction wells GWW-1, GWW-2 and GWW-3, and water from the collection system located at Springs 13 and 39.

"NMED" means the New Mexico Environment Department, a department of the executive branch of the State of New Mexico and a constituent agency of the WQCC, and any successor agencies.

"NMMA" means the New Mexico Mining Act, NMSA 1978, §§ 69-36-1 to 69-36-20, as amended.

"RI/FS" means the Remedial Investigation/Feasibility Study being conducted at the CMI Questa Mine and Tailing Disposal Facility by the U.S. Environmental Protection Agency pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act in cooperation with the New Mexico Environment Department.

"Seepage Interception System" means the system of French drains, barriers and extraction wells below Dam 1 and Dam 4.

"Tailing Disposal Facility" means all facilities associated with transport and disposal of mill tailing from the CMI Questa Mine facility, including the tailing impoundments, the tailing pipeline, and associated sumps and seepage collection systems.

"Tailing Impoundments" means the tailing impoundments owned and operated by CMI located near the Village of Questa in Taos County, New Mexico.

"WQA" means the New Mexico Water Quality Act, NMSA 1978 §§ 74-6-1 to 74-6-17, as amended.

"WQCC" means the New Mexico Water Quality Control Commission.

"WQCC Regulations" means Title 20, Chapter 6, Parts 2 and 4 NMAC, as amended.

IV. PERMIT CONDITIONS

CMI shall comply with the following conditions, which shall be enforceable by NMED.

OPERATIONS

1. CMI 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.

Design Capacity

2. CMI shall manage all discharges to the Tailing Impoundments in accordance with the approved Tailing Impoundment Operational Plan dated May 29, 2001 to ensure positive drainage and to minimize dust from the tailings, by discharging to small operating cells (approximately 100 acres) within the operating area of the facility until the operating area has reached its design height, then discharging in a new operating area within the existing impoundment and placing an interim dust cover or other suitable dust control on

the previous discharge area. When the maximum design height is attained in any one area, CMI shall then close that area in accordance with the approved closure plan described in Conditions 34 through 67. [20.6.2.3106 and 3107 NMAC]

Flow Description

3. CMI shall manage discharges as follows:

- a. Discharges of mill tailings to the Tailing Impoundments, as specified in Condition 3.b below, may continue until the Tailing Impoundments have reached their design capacity or until concentrator operations cease, whichever comes first. Discharges of Mine Water to the Tailing Impoundments, as specified in Condition 3.c below, shall cease as soon as practicable after concentrator operations cease, pursuant to a recirculation or water management plan approved by NMED.
- b. CMI shall discharge no more than 22,000 tons per day (for a life of mine maximum total of 178,187,100 million tons) of tailings solids from the mill to the Tailing Impoundments. The tailings shall be transported from the mill to the Tailing Impoundments in two 44,600-foot long rubber-lined pipelines as slurry, which is approximately 38% solids by weight.
- c. CMI shall discharge to the Tailing Impoundments no more than 12,960,000 gallons per day of Mine Water.
- d. CMI shall direct all discharges to the Tailing Impoundments through the mill where the pH shall be adjusted to no lower than 6.0 standard units, and no greater than 9.0 standard units. Water and tailing from the upper and lower emergency dump sumps may be discharged directly to the Tailing Impoundments. Water collected from the Seepage Interception System not discharged to the Red River may be discharged to active areas of the Tailing Impoundments.
- e. Except as provided in this Discharge Permit, CMI shall not discharge any effluent from the mine or mill area to the Tailings Disposal Facility prior to obtaining approval from NMED through a permit modification, approved abatement plan, final settlement agreement, administrative order on consent, or other final enforceable regulatory mechanism.
- f. Any impounded water on the Tailing Impoundments shall not have pH values below 6.0 standard units or greater than 9.0 standard units. [20.6.3106 NMAC]
- g. CMI is authorized to discharge up to a combined total of 1,000,000 gallons per year of treated Mine Water or water from the Seepage Interception System for dust control on roadways by surface spraying from a water truck(s). Within 90 days after the effective date of this Discharge Permit, CMI shall submit to NMED for approval a report on the surface spraying that demonstrates how ground water standards will not be exceeded as a result of the spraying. The report shall include a map that delineates

the areas where the discharge will occur, calculations indicating the approximate land surface area on which the discharge will occur, frequency of spraying and calculations showing the approximate volume of water that will be applied. CMI shall insure that proper water spraying methods are used so that the discharge does not cause excessive ponding on the ground surface. CMI shall measure and record the daily volume of water discharged. The daily volumes of water used shall be reported to NMED in the quarterly reports described under Condition 20. NMED may require this system to be modified or suspended based on the results of the surface spraying report and ongoing water sampling described under Condition 16. [20.6.2.3109 NMAC]

Pipeline Operation

4. CMI shall implement and maintain a pipeline spill prevention plan which consists of the following requirements:
 - a. The pipeline shall be patrolled 24 hours per day when the mill is in operation.
 - b. The pipeline shall be patrolled at least once per shift when the mill is inactive but Mine Water is being sent to the Tailing Impoundments.
 - c. Two flow monitoring and four pressure monitoring systems designed to detect pipeline failures shall be maintained and monitored continuously.
 - d. Six sections of the pipeline shall be dismantled and visually checked annually to ensure the lining is intact. If the lining or seals are damaged the pipeline section shall be replaced.
 - e. Berms, sandbags, straw bales or other containment systems shall be maintained along the Red River and acequia intakes as required to protect ground water and surface water.
 - f. The pipeline drainage shall be maintained so that it slopes away from the river.
 - g. Launderers and emergency containment areas shall be maintained where the pipelines cross the river, as required to protect ground water and surface water. [20.6.3107 NMAC]

Emergency Sumps

5. Lower Dump Sump: CMI shall conduct maintenance activities at the lower dump sump according to the current standard operating procedures (SOP) dated September 17, 2001. Modifications to the current SOP must be submitted to NMED for approval prior to any change to the Lower Dump Sump SOP. [20.6.3106 NMAC]

6. Upper Dump Sump: Within 60 days after the effective date of this Discharge Permit, CMI shall submit to NMED for approval plans, specifications and an implementation schedule for lining the upper sump dump. This submittal shall, at a minimum, describe and justify the type of liner proposed and provide standard operating procedures for the maintenance of the lined facility. [20.6.3106 NMAC]

Investigations

7. Within 180 days after the effective date of this Discharge Permit, CMI shall submit to NMED for approval a water management report addressing discharge of Mine Water to the Tailing Impoundments. The report shall, at a minimum, include: a) a description of the current water management activities; b) a description of alternative water management activities that could reduce the volume of water discharged and available to infiltrate through the Tailing Impoundments and c) a proposal for reducing the volume of Mine Water going to the Tailing Impoundments to the extent practicable. [20.6.3106 NMAC]

MONITORING, REPORTING, AND OTHER REQUIREMENTS

8. CMI shall conduct the monitoring, reporting, and other requirements set forth below. [20 NMAC 6.2.3107]

Sampling and Field Measurements:

9. Ground Water Monitoring Wells. CMI shall conduct monitoring of the following ground water monitoring wells: MW-A, MW-B, MW-1, MW-2, MW-4, MW-7A, MW-9A, MW-9B, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-17, MW-20, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, MW-29, MW-30, MW-31, MW-32, MW-34, MW-CH, and all monitoring wells installed after issuance of this Discharge Permit. CMI shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft) as required in Table 1. Monitoring wells shall be sampled as required in Table 1. Samples shall be analyzed for the parameters listed in Condition 18. Analytical results and depth to ground water measurements shall be reported as required in Condition 20 through Condition 23. [20.6.3107 NMAC]
10. Ground Water Extraction Wells. CMI shall conduct monitoring of the following ground water extraction wells: EW-1, EW-2, EW-3, EW-4, EW-5A, EW-5B, EW-5C, EW-5D, EW-6, and all extraction wells installed after issuance of this Discharge Permit. Extraction wells shall be sampled as required in Table 1. Samples shall be analyzed for the parameters listed in Condition 18. Analytical results and depth to ground water measurements shall be reported as required in Condition 20 through Condition 23. [20.6.3107 NMAC]
11. Upper and Lower Dump Sump Monitoring Wells. CMI shall conduct monitoring of the following Upper and Lower Dump Sump ground water monitoring wells: US-1, US-2, US-3, LS-1, LS-2, LS-3, and all Upper and Lower Dump Sump monitoring wells

installed after issuance of this Discharge Permit. CMI shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft) as required in Table 1. All monitoring wells shall be sampled as required in Table 1. Samples shall be analyzed for the parameters listed in Condition 18. Analytical results and depth to ground water measurements shall be reported as required in Condition 20 through Condition 23. [20.6.3107 NMAC]

12. Seeps. CMI shall monitor water quality at the East and West Seeps located below Tailing Impoundment No. 1, and in any other discrete seeps identified below the tailings dams. Samples shall be collected according to the schedule in Table 2. Samples shall be analyzed for the parameters listed in Condition 18. Active seep locations shall be recorded on a map and seep flow rates shall be measured, to the extent practicable, in gallons per minute (gpm) from each flowing seep once per month. Seep locations, analytical results, and seep flow rates shall be reported as required in Condition 20 through Condition 23. [20.6.3107 NMAC]
13. Springs. CMI shall conduct monitoring of the following spring locations: Spring 8 (Spring in middle of pasture approximately 300 feet northeast of Outfall 002); Spring 9 (Spring south of Dam 1); Spring 10 (Spring south of Dam 1); Spring 12 (Spring along river bank downstream of drainage from Dam 4); Spring 17 (Cold water spring for the fish hatchery); and Spring 18 (Warm water spring for the fish hatchery) pursuant to the schedule in Table 2. At the time of sample collection, spring flow rates shall be measured in gallons per minute (gpm) at each sampling location with the exception of Springs 17 and 18 which are regulated by pipeline valves. Samples shall be analyzed for the parameters listed in Condition 18. Analytical results and flow rates shall be reported as required in Condition 20 through Condition 23. [20.6.3107 NMAC]
14. Seepage Interception System. CMI shall conduct monitoring of the seepage barriers and all seepage barriers installed after issuance of this Discharge Permit. Monitoring of Seepage Barriers 1 and 2 shall be sampled as required in Table 2. Samples shall be analyzed for the parameters listed in Condition 18. The total cumulative flow rate of intercepted and extracted seepage water shall also be monitored and recorded. Flow rates and analytical results shall be reported as required in Condition 20 through Condition 23. [20.6.3107 NMAC]
15. Piezometers. CMI shall provide copies of the piezometer information collected for the State Engineer's Office (SEO) to NMED in the quarter following submittal to the SEO. [20.6.3107 NMAC]
16. Tailings Discharge. CMI shall conduct monthly tailings discharge sample collection when the mill is active, and analyze the solid fraction for whole rock analysis and acid base accounting analysis. CMI shall also sample the tailings decant water quarterly from Tailing Impoundments receiving discharge at the time of sampling. Water samples shall be analyzed for the parameters Groups 1,2 and 3 listed in Condition 18. Analytical results shall be reported as required in Condition 20 through Condition 23. [20.6.3107 NMAC]

17. Discharge Volume. CMI shall measure and report monthly the total discharge volume to the Tailing Impoundments. CMI shall also report the percent of the total water volume represented by tailing discharge and all other individual discharges including discharges during times when the mill is inactive. Volumes shall be reported quarterly as required in Condition 20 through Condition 23.

Analysis

18. CMI shall analyze samples of ground water and surface water for the parameters listed below. Samples of tailing decant water shall be analyzed for total and dissolved concentrations of the analytes listed below. Samples of ground water from supply wells, ground water monitoring wells, extraction wells, seepage barriers, outfalls, seeps, and springs shall be analyzed for dissolved concentrations of the analytes listed below.

Group 1: Field parameters (analysis to be performed in the field): water level, temperature, pH, and electrical conductivity.

Group 2: General chemistry parameters: calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulfate, chloride, nitrate, fluoride, and total dissolved solids.

Group 3: Metals parameters: aluminum, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury (total concentration only), molybdenum, nickel, selenium, silver, uranium, vanadium, and zinc. [20.6.3107 NMAC]

Methodology

19. Unless otherwise approved in writing by NMED, CMI shall conduct sampling and analysis in accordance with the most recent edition of following:
- 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. [20.6.3107 NMAC]

Reporting

20. CMI shall submit to NMED quarterly monitoring reports containing information collected during the preceding calendar quarter as follows:

- 1st Quarter Report on or before April 15;
- 2nd Quarter Report on or before July 15;
- 3rd Quarter Report on or before October 15; and
- 4th Quarter Report on or before January 15 of each year.

21. CMI's quarterly reports shall include but are not limited to the following:

- a. A summary of all activities at the facility during the preceding quarter. Examples are: section 20.6.2.1203 NMAC reportable spills during the quarter; maintenance and/or repairs at the Tailing Impoundments, pipeline or emergency dump sumps; listing reports submitted pertaining to the Tailing Impoundments; any well drilling, water management, or interim covers applied; and any construction, such as reclamation test plots or increases in the dam height.
- b. A Ground Water Sampling and Depth to Water Table section that includes a summary table of monitoring and extraction well data, referred to as the data table, a map of the Tailing Disposal Facility with the above associated wells, and a hard copy of the laboratory results associated with the summary table.
- c. A Ground Water Sampling from the Emergency Dump Sumps section that includes a summary table of monitoring well data, a map of the locations of the above associated wells, and a hard copy of the laboratory results associated with the summary table.
- d. A Seep/Spring Water Sampling section that includes a summary table of monitoring data, a map of the Tailing Disposal Facility with the above associated sampling points and a hard copy of the laboratory results associated with the summary table.
- e. A Piezometer Readings section that uses the existing reporting format.
- f. A Volume of Water section that uses the existing reporting format.
- g. A Tailings Water Sampling section that uses the existing reporting format.
- h. A Tabulation of pH Measurements of Discharge Waters section that uses the existing reporting format. [20.6.3107 NMAC]

22. Monitoring reports shall include results of all monitoring tasks described in Conditions 9 through 18 above, Tables 1 and 2, and shall include copies of all raw data. [20.6.3107 NMAC]
23. CMI shall prepare a potentiometric map annually that includes data from all monitoring wells, extraction wells, piezometers, and springs. The potentiometric map shall be submitted with the monitoring report submitted by October 15. [20.6.3107 NMAC]

ABATEMENT

24. Ground water standards have been exceeded within and beyond the area covered under this Discharge Permit. If NMED determines that the remedial measures required by EPA pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act are not adequate to satisfy the requirements of 20.6.2.3109.E NMAC, NMED may require CMI to implement additional ground water measures to abate ground water contamination at the Tailing Disposal Facility. The abatement shall be consistent with the requirements and provisions of sections 20.6.2.4101, 20.6.2.4103, 20.6.2.4106.C and E, 20.6.2.4107, and 20.6.2.4112 NMAC. The abatement shall be conducted in 2 stages. Stage 1 of the abatement shall be consistent with the requirements and provisions of 20.6.2.4106.C NMAC and shall include a schedule that incorporates the elements of the RI/FS. Stage 2 of the abatement shall include an analysis of abatement alternatives and the selection of an abatement alternative pursuant to 20.6.2.4106.E (2) and (3). To the extent that NMED determines that the investigations conducted and potential abatement alternatives identified pursuant to the EPA RI/FS satisfy the requirements of 20.6.2.3109.E NMAC, such investigations and identification of abatement alternatives may be used to satisfy the requirements of this permit condition. [20.6.2.3107.A(10) NMAC]
25. CMI shall submit to NMED a report describing the local and regional hydrogeology at the Tailing Impoundments and in the surrounding vicinity, based on current data. If the data is insufficient to complete the abatement requirements described in Condition 24 and the Cover Performance Evaluation described in Condition 68, the report must include a proposal, for NMED approval, to obtain the necessary data. [20.6.3107 NMAC]
26. On or before December 1 of each year, CMI shall submit to NMED a report on the operation of the Seepage Interception System, including any upgrades to the system. The report shall include an evaluation of the effectiveness of the current system and recommendations to upgrade the system, as appropriate. [20.6.3107 NMAC]
27. CMI shall operate the Seepage Interception System continuously such that the existing ground water contaminant plume is completely contained. CMI shall operate the system until monitoring indicates that ground water standards set forth in 20.6.3103 NMAC have been achieved and maintained for two consecutive years (eight quarters). If the annual evaluation report described in condition 26 indicates that complete capture and containment of the contaminant plume is not being attained, then CMI shall propose, within 30 days of the annual report for NMED approval, measures to stop plume

migration through increased pumping in current extraction wells or the addition of new extraction well(s), or other measures as necessary. 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 for the Tailing Disposal Facility described under Condition 24. [20.6.2.3106 NMAC]

CONTINGENCIES

Ground Water and Surface Water Standards Exceedences and Water Pollution

28. In the event that monitoring indicates ground water or surface water standards are being exceeded, or the extent or magnitude of existing ground water pollution is significantly increasing, CMI shall collect a confirmatory sample or samples from the monitoring well(s) within 15 days of discovery to confirm the initial sampling results. Within 30 days of the confirmation of ground water or surface water standard exceedences or significant increases in existing exceedences, CMI shall submit to NMED for approval a plan to abate the water pollution, which shall include 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.C and E, 4107, 4108 and 4112 NMAC. Stage One of the abatement shall be implemented within 30 days of NMED's approval. Abatement required under this Condition may be incorporated into any abatement required under Condition 24. [20.6.2.3107.A 10 NMAC]
29. CMI may discharge to the Tailing Impoundments seepage from the collection system located at Springs 13 and 39 to the Upper Dump Sump in the event of an emergency or to meet maintenance requirements. The Upper and Lower Dump Sumps shall be maintained to allow temporary discharge of tailings in the event of an emergency or to meet maintenance requirements. [20.6.2.3106 NMAC]

Operational Failures

30. In the event of a pipeline break, pump failure, pond overflow or other system failure at the Tailing Disposal Facility, the tailing slurry, decant water, intercepted ground water, and other discharges shall be contained, pumped and transferred to areas of the Facility that minimize the potential for 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. [20.6.2.3107.A 10 NMAC]
31. If NMED or CMI identifies any other failure or potential failure of the Discharge Permit Renewal and Modification or system not specifically noted above, NMED may require CMI to develop for NMED approval, contingency plans and schedules to address such a failure. [20.6.3.3104 NMAC]

Spill Reporting

32. In the event of a spill or release that is not authorized under this Discharge Permit, CMI shall initiate the notifications and the corrective actions as required in 20.6.2.1203 NMAC. CMI 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, CMI shall verbally notify NMED and provide the information required by section 20.6.2.1203 A.1 NMAC. Within 7 days of discovering the discharge, CMI shall submit a written report to NMED verifying oral notification and providing any additional information or changes. CMI shall submit a corrective action report within 15 days after the discovery of the discharge. [20.6.2.1203 NMAC]

Cessation of Tailing Discharges

33. In the event that CMI ceases to discharge tailing solids to the Tailing Impoundments for a period exceeding 180 days, CMI 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 Impoundments. [20.6.3.3104 NMAC]

CLOSURE

34. Upon cessation of operation of the Tailings Disposal Facility, CMI shall implement the closure plan described below in Conditions 35 through 67. In the event that CMI modifies or expands the Tailings Disposal Facility operations pursuant to DP-933 in a manner that exceeds the scope of the closure plan, CMI shall propose changes to the closure plan accordingly. [20.6.2.3107.A.11 NMAC]

Surface Shaping

35. CMI shall close the Tailing Impoundments in a manner that ensures positive drainage and eliminates ponding on the tailings surface and final cover surface, 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. To facilitate closure, the tailing impoundment surfaces shall be constructed to drain from northeast to southwest. At closure, the tailing decant ponds shall be located at the western boundaries of five individual tailing impoundment zones identified in Figure 3-20 of the *Questa Tailings Facility Revised Closure Plan* (Robertson Geoconsultants Inc., April 1998). The ponds shall be breached and drained by constructing spillways to the western diversion channel as soon as practicable after final tailings elevations have been reached at each tailings impoundment zone. CMI shall notify NMED at least 180 days prior to reaching final tailings elevations, and shall provide a detailed schedule for completion of surface shaping, final cover placement, drainage, and revegetation activities. The surface of the Tailing Impoundments shall be sloped towards the ponds and each tailings impoundment zone shall include riprap-lined drainage swales. The Pope Lake embankment shall be breached to allow free flow of water along the western diversion channel. Design

specifications contained in this condition may be modified during final engineering design with NMED approval. [20.6.2.3107.A.11 NMAC]

36. CMI shall submit engineered design drawings of the tailings, a survey report and associated topographic maps, and an evaluation of tailings settlement to the NMED for approval prior to placement of a final cover on each tailings impoundment zone. The contour intervals of the topographic maps shall be no greater than two feet and shall document positive drainage on the tailing surfaces. The tailings settlement evaluation shall describe settlement characteristics of the tailings and monitoring methods utilized. [20.6.2.3107.A.11 NMAC]

Cover Placment

37. CMI shall cover the Tailing Impoundments with a minimum of 36 inches of alluvium as part of facility closure. The alluvium shall serve as a water storage and release cover to minimize infiltration of precipitation into underlying tailings and subsequent discharge of tailings leachate into ground water and surface water. The cover shall provide for physical stabilization, chemical stabilization, and revegetation. Final cover placement shall begin as soon as surface shaping activities are complete for each tailings impoundment zone and shall be completed as soon as practicable. [20.6.2.3107.A.11 NMAC]
38. CMI shall submit a construction quality assurance (CQA) plan to NMED for approval at least 180 days, or other time period approved by NMED, prior to placement of any cover material over any tailings impoundment zone for final closure. A final CQA report shall be submitted to NMED within 180 days, or other time period approved by NMED, of project completion. The CQA report shall include, at a minimum, as-built drawings, a final topographic map with no greater than two-foot contour intervals, a summary of work conducted, soil testing results, laboratory analytical reports, identification of the location and extent of borrow areas, and construction photographs. Design specifications contained in this condition may be modified during final engineering design with NMED approval. [20.6.2.3107.A.11 NMAC]

Drainage

39. CMI shall implement a drainage plan that provides for permanent stable diversion of flows around the Tailing Impoundments, drainage of water from the surface of the Tailing Impoundments, and prevention of erosion of the cover. To achieve long-term diversion of flows, the east and west diversion ditches adjacent to the Tailing Impoundments shall be left as permanent drainage channels following site closure. The western diversion ditch shall be extended at least 50 yards to prevent flow and subsequent erosion on Tailing Impoundment No. 4. At least 180 days, or other time period approved by NMED, before implementation of construction activities, CMI shall submit to NMED for approval a best management practices (BMP) plan. The BMP plan shall detail the best management practices that will be employed to address erosion, slope length and storm water management. [20.6.2.3107.A.11 NMAC]

40. The drainage plan implemented by CMI shall include discharge of surface runoff to riprap-lined swales on the Tailing Impoundment surfaces. The swales shall drain via engineered outlet structures to the riprap-lined drainage channels described in Condition 35. Detailed engineering designs for outlet structures and riprap-lined channels and swales shall be submitted for the NMED approval at least 180 days, or other time period approved by NMED, prior to construction. As-built drawings and final design specifications shall be included with the CQA report described in Condition 38. Design specifications contained in this condition may be modified during final engineering design with NMED approval. [20.6.2.3107.A.11 NMAC]

Revegetation

41. CMI shall revegetate the Tailing Impoundments as part of site closure to: 1) optimize the effectiveness of the water storage and release cover to reduce infiltration into underlying materials, 2) promote evapotranspiration from the cover system, and 3) provide cover stability and protection from wind and water erosion. Revegetation activities shall use methods approved by MMD to meet New Mexico Mining Act (NMMA) requirements and shall be consistent with the findings of studies conducted pursuant to Conditions 68 through 73. CMI shall submit a copy to NMED of any work plans, reports, or other documents required by MMD associated with site revegetation. Revegetation activities shall be completed as soon as practicable following the final cover placement as specified in Condition 37, but in conjunction with the growing season to provide the best opportunity for successful revegetation. [20.6.2.3107.A.11 NMAC]

Building and Cleanup

42. Any structure necessary for post-closure treatment and disposal of ground water or surface water shall remain in place and be maintained until NMED agrees that use of the structure is no longer required for such purpose. CMI shall remediate contaminated soils, including soils that are potential source areas for ground water and surface water contamination in excess of the standards of 20.6.2.3103 and 20.6.4 NMAC, as approved by NMED, in and around all of the buildings and facilities that will remain in place for use during the closure and post-closure. [20.6.2.1203 NMAC]
43. At least 60 days prior to any structure removal or demolition, CMI shall submit to NMED for approval a structure removal plan. The structure removal plan shall address any potential discharges of leachate that could cause an exceedance of ground water standards, including soils that are potential source areas for ground water contamination. The structure removal plan shall include a sampling plan, and a contingency plan to address potentially contaminated soils, debris and other materials beneath and surrounding the structures. Structure demolition shall be performed as approved by MMD to meet NMMA requirements. [20.6.2.3107.A.11 NMAC]

44. Following cessation of operations, CMI shall dispose, remove, sell, or use, and otherwise manage all reagents, explosives and other hazardous chemicals according to applicable state and federal laws. [20.6.2.3107.A.11 NMAC]
45. CMI shall remove the tailing pipelines and close the associated sumps as soon as they are no longer needed for site operations. Any residual tailings shall be removed from the sumps and will be placed in the Tailing Impoundments prior to closure. CMI shall submit a plan for NMED approval outlining specific closure procedures for the upper and lower sumps, tailings pipelines, and any other structures designed to contain tailings at least 180 days, or other time period approved by NMED, prior to scheduled removal activities. Ground water monitoring wells LS-1, LS-2, LS-3, US-1, US-2, and US-3 for the upper and lower emergency sump areas shall be abandoned in accordance with NMED Guidelines for Monitor Well Construction and Abandonment 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. Prior to pipeline removal, CMI shall triple rinse the pipelines or use equivalent methodology approved by NMED to ensure removal of all potential contaminants contained in the pipeline. During pipeline removal, CMI shall inspect the entire pipeline area for any evidence of past spills. CMI shall document all areas where there is evidence of spills and shall propose corrective actions to the NMED pursuant to the provisions of section 20.6.2.1203 NMAC. Corrective actions shall include evaluation of cleanup alternatives. [20.6.2.3107.A.11 NMAC]

Seepage Interception and Abatement

46. CMI shall continue to operate existing, approved replacement, or new additional ground water contamination interceptor and abatement systems in accordance with this Discharge Permit after cessation of operations as needed to assure compliance with applicable ground water and surface water quality standards. These systems must be operated until monitoring indicates that ground water standards have been achieved and maintained for two consecutive years (8 consecutive quarters). Any changes to these systems must be proposed to and approved by NMED prior to the change being implemented. 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. [20.6.2.3107.A.11 NMAC]
47. CMI shall conduct a detailed evaluation of alternatives to the Seepage Interception System for post-closure seepage interception. The alternatives evaluation shall be conducted as part of the abatement described in Condition 24. The evaluation shall include, at a minimum, the design and performance of biobarriers, cutoff walls, interceptor drains and other alternatives and shall describe the feasibility of using these options as components of the Seepage Interceptor System at closure. This evaluation shall address the feasibility of implementation, long-term effectiveness, operation and maintenance requirements, and time frame to achieve water quality standards. [20.6.2.3107.A.11 NMAC]

48. Following cessation of operations, CMI shall continue to address ground water contamination pursuant to the abatement required in Condition 24 and WQCC Regulations at section 20.6.2.3109.E.1.a and 20.6.2.3107.A.11 NMAC. Abatement of ground water contamination shall include, at a minimum, continued operation of the Seepage Interceptor System unless an alternative system is required by NMED. [20.6.2.3107.A.11 NMAC]

Post-Closure Monitoring and Reporting, and Other Requirements

49. CMI shall perform post-closure monitoring and reporting, as described in Conditions 50 through 60 for a minimum period of thirty years following completion of final closure construction activities, including cover placement, at all tailing impoundment zones. After five years of monitoring, NMED, in its sole discretion, may amend the monitoring frequency, location, and analytical parameters or other measurements set forth in Conditions 18 through 23 for good cause shown in a written request. CMI shall plug and abandon all wells installed as a result of facility operations according to the NMED Guidelines for Monitor Well Construction and Abandonment and according to regulations issued by the Office of the State Engineer in Section 19.27.7 NMAC, upon notification from the NMED that post-closure monitoring may cease. [20.6.2.3107 NMAC]

Sampling and Field Measurements

50. Ground Water Monitoring Wells. CMI shall conduct post-closure monitoring of all existing ground water monitor wells that were subject to monitoring pursuant to Condition 9 at the time of closure. CMI shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft) as required in Table 1. Monitoring wells shall be sampled as required in Table 1. Samples shall be analyzed for the parameters listed in Condition 18. Analytical results and depth to ground water measurements shall be reported as required in Condition 20 through Condition 23. [20.6.2.3107 NMAC]
51. Ground Water Extraction Wells. CMI shall conduct post-closure monitoring of all existing ground water extraction wells that were subject to monitoring pursuant to Condition 10 at the time of closure. Extraction wells shall be sampled as required in Table 1. Samples shall be analyzed for the parameters listed in Condition 18. Analytical results and depth to ground water measurements shall be reported as required in Condition 20 through Condition 23. [20.6.2.3107 NMAC]
52. Seepage Interception System. CMI shall conduct post-closure monitoring of the seepage barriers that were subject to monitoring pursuant to condition 14 and all seepage barriers installed after issuance of this Discharge Permit. Monitoring of Seepage Barriers 1 and 2 and Outfalls 1 and 2 shall be sampled as required in Table 2. Samples shall be analyzed for the parameters listed in Condition 18. The total cumulative flow rate of intercepted and extracted seepage water shall also be monitored and recorded. Flow rates and analytical results shall be reported as required in Condition 20 through Condition 23. [20.6.2.3107 NMAC]

53. Piezometers. CMI shall perform post-closure monitoring of drain down at the Tailing Impoundments, CMI shall record the depth to water to the nearest hundredth of a foot (0.01 ft) in all piezometers in tailing impoundment zones that contain visible water quarterly. Any changes to the piezometer network shall be reported to NMED. CMI shall install additional piezometers if required by NMED to ensure that the monitoring network is adequate. Results shall be reported quarterly as required in Condition 20 through Condition 23. [20.6.2.3107 NMAC]
54. Revegetation. CMI shall perform post-closure monitoring of tailings revegetation to ensure compliance with ground water and surface water quality standards. Post-closure revegetation monitoring shall be performed, at a minimum, pursuant to time frames and monitoring requirements approved by MMD. CMI shall provide a summary of revegetation monitoring results, including photographic documentation, in annual reports to NMED to coincide with MMD reporting requirements. At such time as MMD's revegetation monitoring requirements have been met, revegetation monitoring shall continue under the authority of the NMED pursuant to this Discharge Permit. [20.6.2.3107 NMAC]
55. Erosion. CMI shall perform post-closure inspections for evidence of erosion at all covered Tailing Impoundments, dams, drainage channels and diversion ditches, and shall mitigate significant erosion features to prevent further degradation of the site. The inspections shall be conducted monthly for the first year following final cover placement at any tailings impoundment zone, and quarterly thereafter. Reclaimed tailings surfaces shall additionally be inspected for evidence of erosion after storm events of one inch or greater in any one day period. CMI shall verbally report evidence of major rill, gully, or sheet erosion on any reclaimed area within 24 hours of discovery. CMI shall provide a written report within 30 days of the discovery describing the nature and extent of erosion and steps taken to repair the erosion. NMED may require that additional actions be taken relative to the erosion. [20.6.2.3107 NMAC]
56. Meteorological Data. CMI shall conduct post-closure monitoring of meteorological conditions at the Tailings Impoundments. Meteorological conditions that shall be recorded include air temperature, relative humidity, wind speed, wind direction, precipitation, and net radiation. A summary of meteorological data collected shall be reported annually. [20.6.2.3107 NMAC]

Analysis

57. CMI shall analyze post-closure samples of ground water and surface water as described in Condition 18.

Methodology

58. Unless otherwise approved in writing by NMED, CMI shall conduct sampling and analysis as described in Condition 19. [20.6.2.3107 NMAC]

Reporting

59. CMI shall submit post-closure quarterly monitoring reports as described in Conditions 20 through 23 and Condition 60. [20.6.2.3107 NMAC]
60. CMI shall include in the post-closure quarterly monitoring reports a description of any work completed during the preceding quarter towards final closure of the Tailing Impoundments. Additionally, the quarterly report shall describe the status of closure activities for each tailing impoundment zone and 2) any maintenance and repair work conducted for any closure component. [20.6.2.3107 NMAC]

Closure and Post-Closure Maintenance

61. CMI shall perform quarterly inspections and annual evaluations of the Seepage Interception System and perform maintenance as necessary. 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 extraction system. The inspection results and any maintenance performed by CMI on Seepage Interception System components shall be reported biannually as part of monitoring reports required in Condition 21. [20.6.2.3107 NMAC]
62. CMI shall perform maintenance on the final cover and any associated drainage and diversion structures, as necessary, to preserve the integrity of the final cover and to ensure that the requirements of the WQA and WQCC Regulations are met. Based on monitoring of erosion and revegetation described in Conditions 54 and 55, CMI shall provide recommendations for maintenance work in quarterly monitoring reports, including a schedule for completion of the work. [20.6.2.3107 NMAC]

Implementation of the Closure Plan

63. CMI shall implement the closure plan for the entire Tailing Disposal Facility within 180 days of facility closure or within one year of cessation of tailings deposition at the Tailing Impoundments, whichever occurs first. For purposes of this Discharge Permit, facility closure includes cessation of all permitted discharges from the tailings pipeline to the Tailing Impoundments, cessation of normal operations at the CMI Questa Mine, or abandonment of the Tailing Impoundments. In the event that final tailings elevations are reached at any individual tailing impoundment zone, the closure plan for that zone shall be implemented within 180 days of reaching the final elevation. CMI may request an extension and delay all or portions of the closure plan if the request includes an adequate operational and interim closure plan for the stand-by period. An extension shall only be granted, for good cause shown, if CMI demonstrates that the delay will not cause ground water or surface water quality to be further degraded. 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 time frames for implementation of the closure plan shall be reevaluated by NMED. [20.6.2.3107.A 11

NMAC]

Contingency Plan

64. If CMI discovers a significant increase in the extent or magnitude of ground or surface water contamination upon cessation of operations or during post-closure monitoring, or a significant increase in discharge volume from any seep or existing discharge point, CMI shall implement the contingency plan described in Condition 28. [20.6.2.3107.A 10 NMAC]
65. CMI shall follow the approved contingency plan entitled Revised Contingency Plan for Tailings Disposal Facility dated April 20, 2001, as it may be revised, to address failure of any component of the revised 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. [20.6.2.3107.A 10 NMAC]
66. If information collected after closure of the Tailing Impoundments indicates that the Comprehensive Cover Performance Evaluation and the Revegetation Test Plot Study described in Conditions 68 and 69 did not accurately predict actual cover performance, and if NMED determines the cover is not protective of ground water quality, CMI shall submit to NMED for approval, a proposed work plan a schedule to address such failure, which may include redesign of the final cover over the tailings. [20.6.2.3107.A 10 NMAC]
67. If NMED or CMI identifies any other failure of this Discharge Permit or system not specifically noted above or in the Revised Contingency Plan for Tailings Disposal Facility, NMED may require CMI to develop, for NMED approval, contingency plans and schedules to address such a failure. [20.6.2.3107.A 10 NMAC]

Additional Studies

68. CMI shall continue the Comprehensive Cover Performance Evaluation according to the approved work plan dated May 11, 2001. The purpose of the comprehensive cover performance evaluation is to reevaluate the thickness of the alluvial cover proposed to be placed on the Tailing Impoundments for site closure. The evaluation shall include, at a minimum, a prediction of post-closure impacts of tailings seepage to ground water quality based on a calibrated soil atmosphere model, calibrated ground water flow model(s), and geochemical modeling. The Comprehensive Cover Performance Evaluation shall be updated one year prior to each renewal of DP-933, and shall incorporate the results of the studies defined in Conditions 69 through 71. Based on the results of the Comprehensive Cover Performance Evaluation and each update of the evaluation, NMED will reevaluate the cover design required in Condition 37 and modify the cover design if it is demonstrated that a different cover design will be necessary to meet ground water quality standards after closure. [20.6.2.3107.A 11 NMAC]

69. CMI shall conduct the Revegetation Test Plot Study in accordance with the work plan for the Revegetation of the Tailing Impoundment dated February 29, 2000, as amended by MMD and NMED. CMI shall submit annual progress reports including recommendations for improvements to the study for the first five years after construction of the test plot and then 60 days prior to the renewal of this Discharge Permit. CMI shall submit to NMED any submittals approved by MMD associated with the Revegetation Test Plot Study. The Revegetation Test Plot Study shall continue until test plots demonstrate that revegetation will ensure compliance with applicable water quality standards upon closure of the CMI Tailings Disposal Facility. [20.6.2.3107.A 11 NMAC]
70. CMI shall continue to conduct the Storage Cover Test Plot Study to evaluate net infiltration through the proposed water storage cover. The study shall be performed in accordance with the *Workplan for Storage Cover Test Plot Study, Questa Tailings Facility*, dated January 31, 2000, and CMI's response to the NMED's comments dated May 19, 2000. [20.6.2.3107.A 11 NMAC]
71. Within 60 days from the effective date of this Discharge Permit, CMI shall submit to NMED for approval, a report presenting the results of the Borrow Materials Investigation in accordance with the *Work Plan for Borrow Materials Investigation – Tailings Facility* (Robertson GeoConsultants Inc., January 31, 2000) and the *Borrow Materials Investigation – Tailings* (Robertson GeoConsultants Inc., July 31, 2000) as amended by Addendum #2 – borrow Materials Investigation – Tailings Facility Soils and Vegetation Characterization (URS August 9, 2001) in the Revegetation Test Plot Construction Report. [20.6.2.3107.A 11 NMAC]
72. CMI shall submit to the NMED the results of any ongoing or future studies performed under the jurisdiction of other agencies to determine or address potential impacts to wildlife following closure of the Tailings Impoundments. [20.6.2.3107.A 11 NMAC]
73. If the results of the studies described above in Conditions 68 through 72 indicate that additional or alternative closure actions are necessary to protect ground water and surface water in accordance with applicable water quality standards, CMI shall propose to amend or modify this Discharge Permit to ensure protection of ground water and surface water. [20.6.2.3107.A 11 NMAC]

Financial Assurance

74. Within 15 days after the effective date of this Discharge Permit, CMI shall submit to NMED a revised and updated cost estimate and proposed financial assurance instrument for implementation of the closure plan described in Conditions 34 through 73.
75. Until revised financial assurance is approved by NMED as described in Condition 74, CMI shall maintain financial assurance in an amount of \$23,027,393 to cover the cost of a third party to implement the closure plan described in Conditions 35 through 73 of this Discharge Permit. The financial assurance shall ensure that funds will be available to

implement the closure plan if at any time CMI is unable, unwilling, or otherwise fails to implement closure of the Tailings Disposal Facility or any portion thereof as required by this Discharge Permit.

76. CMI shall continue the trust to receive and disburse funds deposited for closure activities provided in Condition 74, and shall execute a trust agreement, which names NMED (or NMED and MMD for joint financial assurance) as the beneficiary. The trust agreement shall be in a form approved by NMED. The trust shall be maintained until the financial assurance is released. If specifically approved by NMED, CMI may provide alternative financial assurance instruments, in lieu of a trust agreement, that assures payment of the required amount.
77. 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 approved closure NMED 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 each financial assurance instrument. CMI may select a joint financial assurance instrument(s) to meet the requirements of NMED and the MMD. If a joint instrument(s) is selected, both NMED and MMD shall be named as joint beneficiaries and the joint instrument(s) shall meet the requirements of both agencies.
 - c. The financial assurance shall remain in effect throughout the term of DP-933, including the post-closure period, and until replaced or released by NMED. CMI shall not replace any approved financial assurance instrument prior to NMED approval. The financial assurance shall remain in place at all times, including lapses in discharge permit coverage, late discharge permit renewal or temporary shutdown of facilities covered under DP-933.
 - 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 or other information.
 - e. No more than once every 12 months CMI may request that NMED review remaining closure measures including alternate 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 shall adjust the total amount of required 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. Each financial assurance instrument shall include a provision, which requires the financial assurance provider to provide at least 120 days written notice to NMED and CMI prior to cancellation or non-renewal of the financial assurance instrument. CMI shall obtain an NMED-approved alternate financial assurance mechanism within 60 days of such notice. If CMI 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 CMI is unable or unwilling or will otherwise fail to conduct or complete the closure requirements of this 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 CMI and to all financial assurance providers, 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 Discharge Permit and all applicable laws and regulations. NMED will also advise CMI and all financial assurance providers, if applicable, of the conditions under which forfeiture may be avoided. Such conditions may include, without limitation, an agreement by CMI, by a financial assurance provider, or by an NMED approved third party, to perform closure, including post-closure monitoring and maintenance, in accordance with this 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 or as otherwise provided in the approved instrument. Forfeited funds shall be used to complete performance of the closure plan. If the forfeited amount is insufficient, CMI 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. The financial assurance shall be released or modified when NMED determines that closure measures covered by the financial assurance have been completed according to the closure plan requirements of this Discharge Permit Modification.
78. Within 30 days of NMED approval of an updated or revised closure plan, or upon a determination that the existing financial assurance is inadequate or upon any revisions to the cost estimate required by MMD for facilities covered under this Discharge Permit, CMI shall submit to NMED for approval a revised closure cost estimate and financial assurance instruments that meet the requirements of Conditions 76 and 77. Within 30 days of NMED approval of the revised closure cost estimate and financial assurance instrument, CMI shall execute the revised financial instruments and shall provide NMED with an original signed and notarized copy of each financial assurance instrument.

GENERAL TERMS AND CONDITIONS

79. CMI shall comply with the following general conditions, which shall be enforceable by NMED.

Record Keeping

80. CMI 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.A NMAC]
81. Such data and information as described in Condition 80, shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples. [20.6.2.3107.A NMAC]
82. CMI 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]
83. CMI 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]
84. 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, CMI 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 CMI. [20.6.2.3107.A NMAC]

85. 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

86. CMI 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 CMI during regular business hours or at other reasonable times upon CMI'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, 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]

87. 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

88. Within a reasonable time after a request from the NMED, which time may be specified by the NMED, CMI 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 CMI is in compliance with this Discharge Permit. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

89. 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:

90. This Discharge Permit authorizes only those discharges specified herein. Any discharge not authorized by this Discharge Permit or any other CMI Discharge Permit is a violation of the WQCC Regulations at 20.6.2.3104 NMAC. CMI 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 20.6.2.1203 NMAC and, if applicable, Condition 32 of this Discharge Permit. [20.6.2.1203 NMAC]

Modifications and Amendments

91. CMI shall notify the NMED of any changes to its collection or disposal system, including any changes in the tailings or Mine Water flow rates or the volume of tailings or Mine 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. CMI shall obtain the 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 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

92. 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 CMI 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, CMI waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. CMI does not waive any argument as to the weight such evidence should be given.

Compliance with Other Laws

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

Liability

94. The approval of this Discharge Permit does not relieve CMI of liability should the 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

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


Transfer

96. Prior to any transfer of ownership, control, or possession of the CMI Mine or any portion thereof, CMI shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Permit with the notice. CMI 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

97. The effective date of this Discharge Permit is the date it is issued and signed by the Chief of the Ground Water 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, CMI 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 29th day of Feb., 2008



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

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

Table 1. Monitoring Wells, Extraction Wells, Emergency Sump Wells Monitoring Schedule:

| Well ID | 1 st Quarter | 2 nd Quarter | 3 rd Quarter | 4 th Quarter |
|---------|-------------------------|-------------------------|-------------------------|-------------------------|
| MW-A | Water level only | Water level only | Water level only | Water level only |
| MW-B | Water level only | Water level only | Water level only | Water level only |
| MW-1 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-2 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-4 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| MW-7A | Group 1 | Group 1 | Group 1 | Group 1 |
| MW-9A | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-9B | Group 1 | Group 1 | Group 1 | Group 1 |
| MW-10 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| MW-11 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-12 | Water level only | Water level only | Water level only | Water level only |
| MW-13 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-14 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| MW-15 | Group 1 | Group 1 | Group 1 | Group 1 |
| MW-17 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-20 | Group 1 | Group 1 | Groups 1, 2, 3 | Group 1 |
| MW-22 | Group 1 | Group 1 | Groups 1, 2, 3 | Group 1 |
| MW-23 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-24 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| MW-25 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-26 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-27 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-29 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-30 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-31 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-32 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-34 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| MW-CH | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| EW-1 | Groups 1, 2, 3 | Groups 1, 2 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| EW-2 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| EW-3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| EW-4 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| EW-5A | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| EW-5B | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| EW-5C | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| EW-5D | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| EW-6 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| US-1 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| US-2 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| US-3 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| LS-1 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| LS-2 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| LS-3 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |

MW = Monitoring Wells
EW = Extraction Wells
US = Upper Dump Sump Wells
LS = Lower Dump Sump Wells

Group 1 = water level, temperature, pH, and electrical conductivity.

Group 2 = calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulfate, chloride, nitrate, fluoride, and total dissolved solids.

Group 3 = aluminum, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury (total concentration only), molybdenum, nickel, selenium, silver, vanadium, and zinc.

Table 2. Seep, Seepage Barrier, Outfalls and Spring Monitoring Schedule:

| Location ID | 1 st Quarter | 2 nd Quarter | 3 rd Quarter | 4 th Quarter |
|-------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| East Seep | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| West Seep | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| Seepage Barrier 1 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| Seepage Barrier 2 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 | Groups 1, 2, 3 |
| Station 8 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| Station 9 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| Station 10 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| Station 12 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| Station 14 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| Station 15 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| Station 17 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |
| Station 18 | Groups 1, 2, 3 | Group 1 | Groups 1, 2, 3 | Group 1 |

Station = Surface water sampling point.

Group 1 = water level, temperature, pH, and electrical conductivity.

Group 2 = calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulfate, chloride, nitrate, fluoride, and total dissolved solids.

Group 3 = aluminum, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury (total concentration only), molybdenum, nickel, selenium, silver, vanadium, and zinc.