State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

Fernando Martinez, Director
Mining and Minerals Division

July 13, 2018

Ms. Katie Emmer
New Mexico Copper Corporation
4253 Montgomery Blvd NE, Suite 130
Albuquerque, NM 87109

RE: Approvable Permit Application Package, Copper Flat Mine, Sierra County, Permit Tracking No. SI027RN

The Mining and Minerals Division ("MMD") has reviewed the latest submittal from New Mexico Copper Corporation ("NMCC") dated July 5, 2018, regarding establishment of a pit water quality statistical performance standard, and has reviewed the Permit Application Package ("PAP") for the Copper Flat Mine, Sierra County, New Mexico. MMD has also prepared a Draft Environmental Evaluation in accordance with 19.10.6.605.D NMAC. After technical review of the PAP and Draft Environmental Evaluation, NMCC is hereby notified that the PAP is approvable in accordance with 19.10.6.605.E NMAC.

As required by 19.10.6.605.F NMAC, NMCC is hereby instructed to submit a proposal for financial assurance under 19.10.12 NMAC within 30-days after receipt of this letter.

Numerous requests for a public hearing have been received by MMD, therefore a public hearing on the PAP, Financial Assurance Proposal, and Draft Environmental Evaluation will be conducted by MMD in accordance with 19.10.9 NMAC. Details of the public hearing, such as date, time, duration, etc. will be forthcoming.

If you have any questions, please contact me at (505) 476-3434 or by email at david.ennis@state.nm.us.

Sincerely,

David J. ("DJ") Ennis, P.G.
Reclamation Specialist/Permit Lead

cc: Holland Shepherd, Mining Act Program Manager
Fernando Martinez, Mining and Minerals Director
Brad Reid, NMED Permit Lead

Reid, Brad, NMENV

From: candi Browne <candilight4u@gmail.com>
Sent: Thursday, July 26, 2018 3:06 PM
To: Reid, Brad, NMENV
Subject: question from Candace Browne on tailings pond liner

26 July 2018

Hi Brad-
I left a message on your voice mail. This is to support that question & to give you my email so you can respond by email if you so chose.

My question is - has NMCC/THEMAC put out, for the public to review, any information on the LINER they propose to use to line the tailings pond?

HDPE LINER information, I would hope, should have all the specifics and details about the liner, the material, the manufacturer, the company that will be installing it, the company that will be doing the quality assurance checks, repair work, etc.

If this information is available, please let me know where I can find it so that I can take a look.

A large pdf will not work with my very old computer so I'd need it in some other form.

Have you read the book YELLOW DIRT, An American Story of a Poisoned Land and a People Betrayed by author Judy Pasternak. Briefly it is Ms Pasternak telling about the devastating health affects (still happening) to the Navajo from the uranium mine, Monument No. 2 begun in 1940s by the US government, but fronted by private mining companies. Uranium ---atom bomb.... 1940s .that's the picture.
It left the Navajo with poisoned land & a disease named Navajo neuropathy which cripples & is genetic and huge numbers of Navajos dying from all forms of cancer caused by....the yellow dirt.

Thanks for all that you are doing to protect our environment all who live here.

Candace Browne
557 894-4495
PO Box 3642

614A Charles St
TorC NM
87901

Reid, Brad, NMENV

From: Vollbrecht, Kurt, NMENV
Sent: Thursday, July 26, 2018 11:26 AM
To: Vollbrecht, Kurt, NMENV
Cc: Reid, Brad, NMENV
Subject: FW: Copper Flat Mine Discharge Permit hearing

Dear concerned citizen,

The New Mexico Environment Department (NMED) is sending this email in response to your comments regarding the proposed draft discharge permit for the Copper Flat Mine, DP-1840. NMED will hold a public hearing on the proposed discharge permit beginning on September 24th at 9:00 AM, continuing until September 28th as necessary. In the event the hearing is not completed by September 28th at 5:00 PM, the hearing will recommence on October 9th.

The public hearing will be held in Truth or Consequences at the Ralph Edwards Auditorium, 400 West Fourth Street. There will be multiple opportunities for public comment during the hearing, in addition to a specific public comment period between the hours of 5:00 PM and 10:00 PM on September 25, 2018. Any member of the public may provide comments during the times set aside for comment. No pre-hearing submittal or filing of a notice of intent is necessary to provide public comment.

In the event you would like to file a Notice of Intent to be a direct party to the proceeding, including providing direct technical testimony under oath, engaging in cross examination of witnesses, and being subject to cross examination by other parties, please contact Andrew Knight of the NMED at (505) 222-9540 or andrew.knight@state.nm.us for further information.

Your name and email address has been included on the site-specific mailing list for this permitting action and you will receive official notification via email of the hearing when the general public notice is issued.

NMED appreciates your interest in permitting for the Copper Flat Mine, and shares your interest in protection of human health and the environment.

Please contact me at the number listed below or by email, or the permit lead Brad Reid at (505) 827-2963 or by email at Brad.reid@state.nm.us if you have any questions.

Thank you,

Kurt Vollbrecht, Program Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-0195

Memorandum of Meeting or Phone Conversation

☑ Telephone ☐ Meeting	**Time:** 3:30-3:45 pm	**Date:** 07-30-18

Individuals Involved

Candi Browne, concerned citizen ☑ called Brad Reid (NMED-MECS)

Subject:
Discussion RE: DP-1840 Tailing Storage Facility (TSF) Liner

Discussion:
I discussed liner details for the proposed TSF with Candi Browne. Ms. Browne wants to know if the public will have a chance to comment on the CQA/CQC plan for the TSF liner installation and wants to see the details of the CQA/CQC plan. I informed Ms. Browne that the proposed draft DP-1840 and the Copper Rule contain requirements regarding design and construction of the TSF liner system, including CQA/CQC plans. I added that we are working on revising the draft DP-1840 and will consider whether adding additional language in DP-1840 will help clarify the issue regarding the CQA/CQC plan for the TSF liner.

Conclusions:

Distribution: DP-1840 folder

Initialed BR

Reid, Brad, NMENV

From: Katie Emmer <kemmer@themacresourcesgroup.com>
Sent: Tuesday, August 07, 2018 4:36 PM
To: Vollbrecht, Kurt, NMENV
Cc: Reid, Brad, NMENV; Knight, Andrew, NMENV; Yurdin, Bruce, NMENV
Subject: RE: Copper Flat hearing notice and fact sheet

Thanks Kurt. We will post these in the locations you listed below and I will confirm with you when it's done.

Katie

From: Vollbrecht, Kurt, NMENV [mailto:kurt.vollbrecht@state.nm.us]
Sent: Tuesday, August 7, 2018 3:42 PM
To: Katie Emmer
Cc: Reid, Brad, NMENV; Knight, Andrew, NMENV; Yurdin, Bruce, NMENV
Subject: Copper Flat hearing notice and fact sheet

HI Katie,

Attached are the documents as discussed. Let me know if you have any questions. Thank you very much for helping out with this.

Kurt Vollbrecht, Program Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-0195

1 set of public notice and fact sheet, both English and Spanish at the municipal building in Elephant Butte
1 at the Sierra County office in T or C
1 at the City Clerk or City Manager office (they are within walking distance and use the same address) in T or C
1 at the municipal building at the Village of Williamsburg
1 at Hillsboro library with single page notice posted on glass enclosed board

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BUTCH TONGATE
Cabinet Secretary

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Deputy Secretary

NOTICE OF AVAILIBILITY OF FACT SHEET AND PUBLIC NOTICE
RE: INTENT TO ISSUE A DISCHARGE PERMIT
UNDER THE NEW MEXICO WATER QUALITY ACT TO
New Mexico Copper Corporation, Copper Flat Mine
DISCHARGE PERMIT NUMBER: 1840
August 2018

The intent of this posting is to provide notice that a public hearing on the proposed Copper Flat Mine groundwater Discharge Permit will be held at the Ralph Edwards Auditorium in Truth or Consequences beginning at 9:00 a.m. on September 24, 2018, and proceed through September 28, 2018 as necessary. In the event the hearing is not completed by September 28, the hearing will continue beginning October 9, 2018 and proceed through October 12, 2018 as necessary. A full version of the Public Notice for the hearing and an accompanying fact sheet about the proposed Copper Flat Mine are available in the Hillsboro Public Library, located at 158 Elanora St.

AVISO DE DISPONIBILIDAD DE HOJA DE DATOS Y AVISO PÚBLICO
ACERCA DE: INTENCIÓN DE EMITIR UN PERMISO DE DESCARGA
BAJO LA LEY DE CALIDAD DEL AGUA DE NUEVO MÉXICO PARA
New Mexico Copper Corporation, Copper Flat Mine
NÚMERO DE PERMISO DE DESCARGA: 1840
Agosto 2018

La intención de esta publicación es notificar que se llevará a cabo una audiencia pública sobre el Permiso de Descarga de aguas subterráneas propuesto para Copper Flat Mine en el Auditorio Ralph Edwards en Truth or Consequences a partir de las 9:00 a.m., el 24 de septiembre de 2018 y continuará hasta el 28 de septiembre de 2018 según sea necesario. En caso de que la audiencia no se complete para el 28 de septiembre, la audiencia continuará a partir del 9 de octubre de 2018 y continuará hasta el 12 de octubre de 2018, según sea necesario. Hay disponible una versión completa del aviso público de la audiencia y una hoja informativa adjunta sobre la propuesta Copper Flat Mine en la Biblioteca Pública de Hillsboro, ubicada en 158 Elanora St.

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HOJA DE DATOS ACERCA DE: INTENCIÓN DE EMITIR UN PERMISO DE DESCARGA BAJO LA LEY DE CALIDAD DEL AGUA DE NUEVO MÉXICO PARA
New Mexico Copper Corporation, Copper Flat Mine
NÚMERO DE PERMISO DE DESCARGA: 1840
Agosto 2018

I. Antecedentes

De acuerdo con la Ley de Calidad del Agua de Nuevo México, NMSA 1978, § 74-5-1 hasta -17, y los Reglamentos de Protección de Aguas Subterráneas y Superficiales de Nuevo México (20.6.2 Código Administrativo de Nuevo México ("NMAC")), y los Requisitos Suplementarios de Permisos para las Instalaciones de Minas de Cobre ("Reglamento de Minas de Cobre" 20.6.7 NMAC), el Departamento de Medio Ambiente de Nuevo México ("Departamento" o "NMED" por sus siglas en inglés) propone emitir un permiso de descarga de aguas subterráneas ("Permiso de Descarga" o "DP-1840") a New Mexico Copper Corporation ("NMCC" o "Solicitante"), para regular las descargas propuestas de la Copper Flat Mine de NMCC (la "Instalación") ubicada aproximadamente a 5 millas al NE de Hillsboro en el condado de Sierra, NM. Se requiere un permiso para descargas asociadas con la minería y las operaciones de procesamiento de minerales en la propuesta Copper Flat Mine, para garantizar que las descargas se gestionen adecuadamente y así poder proteger la salud humana y el medio ambiente.

II. Instalación

Copper Flat Mine consistirá en una fosa a cielo abierto, pilas de roca de desecho, embalses de aguas pluviales y sistemas de recolección, un Área de Procesamiento de la Instalación que consiste en un concentrador y unidades asociadas para procesamiento de minerales, una instalación de almacenamiento de relaves revestida sintéticamente ("TSF" por sus siglas en inglés) e infraestructura asociada. El proyecto minero perturbará aproximadamente 1.290 acres de los cuales aproximadamente 910 acres fueron previamente perturbados por operaciones mineras históricas en el sitio.

NMCC construirá y operará la Copper Flat Mine y el Concentrador utilizando circuitos convencionales de flotación de cobre y sulfuro de molibdeno y un circuito de recuperación de oro por gravedad con un rendimiento máximo de 38.000 toneladas secas por día de mineral, generando hasta 25.264.000 gpd de purines de relaves. Los concentrados de cobre y molibdeno producidos en el Área de Procesamiento de la Instalación serán empacados para el transporte fuera del sitio y para procesamiento adicional. Durante un período operativo estimado de once años, NMCC pretende explotar el mineral rico en cobre y procesar aproximadamente 125 millones de toneladas de mineral en el Área de Procesamiento de la Instalación y colocar 33 millones de toneladas de roca de desecho en tres delineadas pilas de roca de desecho periféricas a la fosa a cielo abierto.

La TSF revestida sintéticamente será construida al este del Área de Procesamiento de la Instalación. La suspensión de relaves (es decir, aguas de procesamiento y relaves de flotación) que contiene

aproximadamente 29% de sólidos en peso será transportada por gravedad desde el Concentrador a través de una Planta Ciclónica para separar el relave en fracciones gruesas y finas. El desbordamiento del ciclón de arena de relaves de fracciones gruesas será depositado en la presa de relaves y la fracción fina de los relaves del ciclón de limos se descargará al interior de la TSF.

Después de la cesación de la explotación minera, la fosa será rellenada rápidamente con agua dulce a la tabla de agua estática modelada, formando un cuerpo de agua de pozo. Las pilas de roca de desecho, la TSF y otras áreas impactadas serán reclamadas y se revertirán de acuerdo con el Plan de Cierre/Liquidación aprobado y los requisitos aplicables de los Reglamentos de Minas de Cobre.

III. Agua subterránea e hidrogeología

El agua subterránea debajo de las unidades mineras reguladas de conformidad con DP-1840 se encuentra a una profundidad que varía aproximadamente entre 7 y 156 pies con una concentración de solidos disueltos totales ("TDS" por sus siglas en inglés) antes del vertido que varía aproximadamente de 317 a 868 miligramos por litro. La geología del sitio consiste en una reserva de monzonita de cuarzo que alberga el cuerpo de minerales situado dentro de una secuencia de unidades de roca cristalina volcánica con baja permeabilidad en las proximidades de la fosa abierta y por debajo de las unidades de procesamiento de minerales y el almacenamiento de las rocas de desecho. El relleno de la cuenca del Grupo Santa Fe está presente debajo de la TSF revestida sintéticamente, y consiste en capas poco consolidadas, intercaladas de arena, limo, arcilla y conglomerado.

IV. Línea de tiempo del Permiso

La solicitud de Permiso de Descarga inicial fue enviada a NMED por NMCC el 31 de marzo de 2011. En diciembre de 2015, NMCC presentó una solicitud de permiso de descarga revisada según lo requerido para cumplir con los requisitos de los Reglamentos de Minas de Cobre. El aviso público de la solicitud fue emitido el 15 de enero de 2016. Después de la revisión técnica de la solicitud, NMED creó un borrador de Permiso de Descarga, DP-1840. El Departamento publicó avisos del borrador de DP-1840 por un período de 90 días desde el 2 de febrero de 2018 hasta el 5 de mayo de 2018. El aviso público fue establecido inicialmente para el plazo mínimo requerido de 30 días, y después se extendió adicionalmente otros 60 días en respuesta a las peticiones de tiempo adicional para proporcionar comentarios por parte del público. En respuesta a los avisos públicos, el Departamento recibió comentarios y solicitudes para una audiencia pública de tres organizaciones no gubernamentales, dos organizaciones gubernamentales, el Solicitante y 46 personas.

De acuerdo con 20.6.2.3108.K NMAC, el Departamento determinó que existe un interés público sustancial en DP-1840 y, por lo tanto, se ha otorgado una audiencia pública. La audiencia se llevará a cabo en el Auditorio Ralph Edwards en Truth or Consequences comenzando a las 9:00 a.m., el 24 de septiembre de 2018 y continuará hasta el 28 de septiembre de 2018 según sea necesario. En caso de que la audiencia no se complete para el 28 de septiembre, la audiencia continuará a partir del 9 de octubre de 2018 y continuará hasta el 12 de octubre de 2018, según sea necesario. Habrá un intérprete de español durante la audiencia.

El aviso público de esa audiencia que identifica, entre otras cosas, la hora y el lugar de la audiencia y una breve descripción de los procedimientos de la audiencia, se proporcionó de acuerdo con 20.6.2.3108.L NMAC a través de la publicación en el Albuquerque Journal y en Truth or Consequences Herald

NEW MEXICO
ENVIRONMENT DEPARTMENT

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FACT SHEET RE: INTENT TO ISSUE A DISCHARGE PERMIT UNDER THE NEW MEXICO WATER QUALITY ACT TO New Mexico Copper Corporation, Copper Flat Mine DISCHARGE PERMIT NUMBER: 1840 August 2018

I. Background

In accordance with the New Mexico Water Quality Act, NMSA 1978, § 74-5-1 through -17, and the New Mexico Ground and Surface Water Protection Regulations (20.6.2 New Mexico Administrative Code ("NMAC")) and the Supplemental Permitting Requirements for Copper Mine Facilities ("Copper Mine Rule" 20.6.7 NMAC), the New Mexico Environment Department ("Department" or "NMED") proposes to issue a groundwater discharge permit ("Discharge Permit" or "DP-1840") to New Mexico Copper Corporation ("NMCC" or "Applicant"), to regulate discharges from NMCC's proposed Copper Flat Mine located approximately 5 miles NE of Hillsboro in Sierra County, NM. A permit is required for discharges associated with mining and mineral processing operations at the proposed Copper Flat Mine to ensure that the discharges are properly managed to protect human health and the environment.

II. The Facility

The Copper Flat Mine will consist of an open pit, waste rock stockpiles, stormwater impoundments and collection systems, a Process Facility Area consisting of a concentrator and associated mineral processing units, a synthetically lined tailing storage facility ("TSF"), and associated infrastructure. The mine project will disturb approximately 1,290 acres of which approximately 910 acres were previously disturbed from historic mining operations at the site.

NMCC will construct and operate the Copper Flat Mine and Concentrator using conventional copper and molybdenum sulfide flotation circuits and a gravity gold recovery circuit with a maximum throughput of 38,000 dry tons per day of ore, generating up to 25,264,000 gallons per day ("gpd") of tailings slurry. The copper and molybdenum concentrates produced at the Process Facility Area will be packaged for off-site transport and additional processing. Over an estimated eleven-year operational period, NMCC intends to mine the copper-rich ore body and process approximately 125 million tons of ore at the Process Facility Area, and place 33 million tons of waste rock on three delineated waste rock stockpiles peripheral to the open pit.

The synthetically lined TSF will be constructed due east of the Process Facility Area. Tailings slurry (i.e., process water and flotation tailings) containing approximately 29% solids by weight will be gravity conveyed from the Concentrator through a Cyclone Plant to separate the

tailings into coarse and fine fractions. The coarse fraction tailings sand cyclone underflow will be deposited at the tailing dam and the fine fraction tailings slime cyclone overflow will be discharged to the interior of the TSF.

After the cessation of mining, the pit will be rapidly re-filled with fresh water to the modeled static water table, forming a pit water body. Waste rock stockpiles, the TSF, and other impacted areas will be reclaimed and revegetated in accordance with the approved Closure/Closeout Plan and applicable Copper Mine Rule requirements.

III. Groundwater and Hydrogeology

Ground water beneath the mine units regulated pursuant to DP-1840 is at a depth ranging from approximately 7 to 156 feet with a pre-discharge total dissolved solids ("TDS") concentration ranging from approximately 317 to 868 milligrams per liter. The geology of the site consists of a quartz monzonite stock that hosts the ore body situated within a sequence of volcanic crystalline bedrock units with low permeability in the vicinity of the open pit and beneath the mineral processing and waste rock storage units. The Santa Fe Group basin fill is present beneath the synthetically lined TSF, and consists of interbedded layers of poorly consolidated sand, silt, clay, and conglomerate.

IV. Permitting Timeline

The initial Discharge Permit application was submitted to NMED by NMCC on March 31, 2011. In December of 2015, NMCC submitted a revised discharge permit application as required to meet Copper Mine Rule requirements. Public notice of the application was issued on January 15, 2016. Following technical review of the application, NMED created a draft Discharge Permit, DP-1840. The Department published notices of the draft DP-1840 for a 90-day period from February 2, 2018 until May 5, 2018. The public notice was initially established for the required minimum 30-day time frame, and then extended an additional 60 days in response to requests for additional time to provide comment by members of the public. In response to the public notices, the Department received comments and requests for a public hearing from three non-government organizations, two governmental organizations, the Applicant, and 46 individuals.

In accordance with 20.6.2.3108.K NMAC, the Department determined that there is substantial public interest in DP-1840, and therefore a public hearing has been granted. The hearing will be held at the Ralph Edwards Auditorium in Truth or Consequences beginning at 9:00 a.m. on September 24, 2018, and proceed through September 28, 2018 as necessary. In the event the hearing is not completed by September 28, the hearing will continue beginning October 9, 2018 and proceed through October 12, 2018 as necessary. There will be a Spanish language interpreter for the hearing.

Public notice of that hearing identifying, among other things, the time and place of the hearing and a brief description of the hearing procedures, was provided in accordance with 20.6.2.3108.L NMAC through publication in the Albuquerque Journal and the Truth or Consequences Herald.

NOTICE OF PUBLIC HEARING
NEW MEXICO ENVIRONMENT DEPARTMENT

The New Mexico Environment Department (NMED) will hold a public hearing beginning at 9:00 a.m. on September 24, 2018, and proceed through September 28, 2018 as necessary, at the Ralph Edwards Auditorium in Truth or Consequences, New Mexico. In the event the hearing is not completed by September 28, the hearing will continue beginning October 9, 2018 and proceed through October 12, 2018 as necessary. The hearing will consider a proposed groundwater discharge permit (Discharge Permit or DP-1840) prepared by NMED in response to a permit application submitted by New Mexico Copper Corporation (NMCC or Applicant) for discharges from the proposed Copper Flat Mine (Facility). The Hearing Officer will provide opportunities for general oral statements or non-technical testimony from members of the public throughout the hearing at breaks in the presentation of technical testimony, and in a public comment session beginning at 5:00 p.m. on September 25, 2018 and continuing as long as there is comment to be given. A Spanish-language interpreter will be available at the hearing.

Name of the Applicant: New Mexico Copper Corporation

Location of the Discharge: The facility is located at 85 Copper Rock Road approximately 5 miles NE of Hillsboro, in Sections 30 and 31, T15S, R06W, Sections 25, 26, 35, and 36, T15S, R07W, and Section 6, T16S, R06W, Sierra County.

Activities Which Produce the Discharge: NMCC is proposing to construct and operate an open pit copper mine and associated mineral processing facilities. Regulated mine units will include an open pit, waste rock stockpiles, ore stockpiles, mineral processing units including a mill and concentrator, process water impoundments, and a synthetically lined tailing impoundment.

Quality, Quantity, and Flow Characteristics of the Discharge: The Applicant proposes to discharge a maximum of 25,264,000 gallons per day (gpd) of mill tailings, process water, impacted stormwater, and domestic wastewater to a synthetically lined tailing impoundment. In addition, discharge of impacted stormwater, process water, and leachate generated from waste rock stockpiles, mine units including a concentrator and associated mineral processing facilities, impoundments, sumps, tanks, and pipelines, and other areas within the permit area would be authorized pursuant to DP-1840.

The Copper Flat Open Pit walls, the waste rock stockpiles, the Tailings Storage Facility and other impacted areas at the mine facility may contain sulfide minerals which, when oxidized, generate acidic solutions. These acidic solutions react with in situ minerals to produce acid rock drainage (ARD) that typically contains total dissolved solids (TDS), sulfate and certain metals in concentrations that exceed the water quality standards of Section 20.6.2.3103 NMAC. Process water and impacted stormwater discharges from the Copper Flat Mine, including ARD, are typically outside the acceptable range for pH and contain TDS, sulfate and certain metals in concentrations that exceed the water quality standards of Section 20.6.2.3103 NMAC.

Depth to Groundwater: Ground water beneath the proposed Copper Flat Mine is at a depth of approximately 7 to 156 feet with a pre-discharge TDS concentration of approximately 317 to 868 milligrams per liter.

Hearing Procedures: The hearing will be conducted pursuant to the NMED Permit Procedures regulations, 20.1.4 NMAC, and the NMED Ground and Surface Water Protection regulations, 20.6.2.3110 NMAC. Any member of the public may attend the hearing and present relevant non-technical testimony, orally or in writing, and examine witnesses testifying at the hearing. To be a party or to present technical testimony, a person must follow the procedures below:

Entry of Appearance Required to be a Party: Any person who wishes to be a party shall file with the Hearing Clerk, and serve upon all other parties of record, including NMED and the Applicants, an *Entry of Appearance* on or before **August 24, 2018**.

Statement of Intent to Present Technical Testimony Required: Any person who wishes to present technical evidence, data, or testimony at the hearing shall file with the Hearing Clerk and serve on the Applicants, NMED, and all other parties of record a *Statement of Intent to Present Technical Testimony* on or before **August 24, 2018**, pursuant to 20.6.2.3110.C NMAC. A timely filed Statement of Intent shall be considered an Entry of Appearance. The Statement of Intent must comply with the requirements in 20.1.4.300 NMAC and 20.6.2.3110.C NMAC and shall include: (1) the name of the person filing the statement; (2) a statement as to whether the person supports or opposes the proposed permit; (3) the name, address, affiliation, work background, and educational background of each witness; (4) the estimated length of direct testimony of each witness; (5) a list of exhibits to be offered into evidence at the hearing with a copy of each exhibit that is not already part of the Record Proper; (6) a list of all technical materials, including information where the material can be obtained, relied upon by each witness in making a technical statement of fact or opinion and an explanation of the basis for such an opinion; and (7) the full written direct testimony of each witness including any opinions to be offered by such witness and an explanation of the basis for that opinion.

Failure to file a timely Entry of Appearance or Statement of Intent to Present Technical Testimony shall preclude a person from being a party to the proceeding and from presenting technical testimony, but shall not preclude a person from presenting a general written or oral statement or non-technical testimony in the proceeding.

Final Determination on Permit by NMED: The Secretary of NMED will make a final determination approving, conditionally approving, or disapproving DP-1840 based on the administrative record for the permit application, public comment, and the public hearing.

Documents Filed with Hearing Clerk: All documents that need to be filed with the Hearing Clerk shall be submitted to: John Baca, Hearing Clerk, NMED, P.O. Box 5469, 1190 St. Francis Drive, Santa Fe, New Mexico 87502, (505) 827-2425.

Documents Served on NMED: All documents that need to be served on NMED shall be sent to: Andrew Knight, NMED Office of General Counsel, 1190 South St. Francis Drive, P.O. Box 5469, Santa Fe, New Mexico, 87502-5469, or andrew.knight@state.nm.us.

Further Information and NMED Contact: For further information on DP-1840 and the public hearing, or to be placed on the facility-specific mailing list, please contact Brad Reid, NMED Ground Water Quality Bureau (GWQB), 1190 St. Francis Drive, P.O. Box 5469, Santa Fe, New Mexico 87502-5469, at (505) 827-2963, or at brad.reid@state.nm.us. The administrative record and the proposed permit can be viewed at the GWQB, and on the NMED website at https://www.env.nm.gov/gwqb/mecs/ .

If any person requires assistance, an interpreter, or auxiliary aid to participate in this process, please contact John Baca at (505) 827-2425, or submit a written request to Mr. Baca, at least ten (10) calendar days prior to the hearing at NMED, P.O. Box 5469, Santa Fe, New Mexico 87502-5469, or john.baca2@state.nm.us .

NMED does not discriminate on the basis of race, color, national origin, disability, age or sex in the administration of its programs or activities, as required by applicable laws and regulations. NMED is responsible for coordination of compliance efforts and receipt of inquiries concerning non-discrimination requirements implemented by 40 C.F.R. Part 7, including Title VI of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and Section 13 of the Federal Water Pollution Control Act Amendments of 1972. If you have any questions about this notice or any of NMED's non-discrimination programs, policies or procedures, you may contact: Kristine Pintado, Non-Discrimination Coordinator, NMED, 1190 St. Francis Dr., Suite N4050, P.O. Box 5469, Santa Fe, NM 87502, (505) 827-2855, nd.coordinator@state.nm.us. If you believe that you have been discriminated against with respect to a NMED program or activity, you may contact the Non-Discrimination Coordinator identified above.

Transcripts of Hearing. Pursuant to 20.6.2.3110.J NMAC, NMED will make an audio recording of the hearing. If any person requests a written transcript or certified copy of the audio recording, the requestor shall pay the cost of the transcription or audio copying.

AVISO DE AUDIENCIA PÚBLICA
DEPARTAMENTO DE MEDIO AMBIENTE DE NUEVO MÉXICO

El Departamento de Medio Ambiente de Nuevo México (NMED, por sus siglas en inglés) celebrará una audiencia pública a partir de las 9:00 a.m. del 24 de septiembre de 2018 y continuará hasta el 28 de septiembre de 2018 según sea necesario, en el auditorio Ralph Edwards en Truth or Consequences, Nuevo México. En caso de que la audiencia no se haya completado para el 28 de septiembre, la audiencia continuará a partir del 9 de octubre de 2018 y continuará hasta el 12 de octubre de 2018, según sea necesario. La audiencia considerará un permiso propuesto de descarga en aguas subterráneas (Permiso de Descarga o DP-1840) preparado por NMED en respuesta a una solicitud de permiso presentada por New Mexico Copper Corporation (NMCC o Solicitante) para las descargas de la propuesta Copper Flat Mine (Instalación). El Funcionario de Audiencias brindará oportunidades para declaraciones orales generales o testimonios de carácter no técnicos de miembros del público durante la audiencia durante los descansos en la presentación de testimonios de carácter técnico, y en una sesión de comentarios públicos que comenzará a las 5:00 p.m. el 25 de septiembre de 2018 y continuará mientras haya comentarios. Un intérprete de español estará disponible durante la audiencia.

Nombre del solicitante: New Mexico Copper Corporation

Ubicación de la descarga: la instalación está ubicada en 85 Copper Rock Road aproximadamente a 5 millas al NE de Hillsboro, en las Secciones 30 y 31, T15S, R06W, Secciones 25, 26, 35 y 36, T15S, R07W y Sección 6, T16S, R06W, condado de Sierra.

Actividades que produce la descarga: NMCC propone construir y operar una mina de cobre a cielo abierto e instalaciones asociadas para el procesamiento de minerales. Las unidades mineras reguladas incluirán una fosa a cielo abierto, pilas de desechos rocosos, pilas de minerales, unidades para el procesamiento de minerales que incluyen un molino y un concentrador, embalses de agua para el procesamiento y un embalse de colas con revestimiento sintético.

Calidad, cantidad y características de flujo de la descarga: el solicitante propone descargar un máximo de 25.264.000 galones por día (gpd) de escombreras, aguas de procesamiento, aguas pluviales impactadas y aguas residuales domésticas a un embalse de colas revestido sintéticamente. Además, se autorizaría la descarga de aguas pluviales impactadas, aguas de procesamiento y lixiviados generados a partir de pilas de rocas de desecho, unidades mineras incluyendo un concentrador y las instalaciones asociadas de procesamiento de minerales, embalses, sumideros, tanques y tuberías, y otras áreas dentro del área de permiso serían autorizadas de conformidad con DP-1840.

Las paredes del Copper Flat Open Pit, las pilas de rocas de desecho, la Tailings Storage Facility y otras áreas impactadas en la instalación de la mina pueden contener minerales de sulfuro que, cuando se oxidan, generan soluciones ácidas. Estas soluciones ácidas reaccionan con minerales in situ y producen drenaje ácido de roca (ARD) que típicamente contiene sólidos disueltos totales (TDS), sulfato y ciertos metales en concentraciones que exceden los estándares de calidad del agua de la Sección 20.6.2.3103 NMAC. Las aguas del procesamiento y las descargas de aguas pluviales impactadas de Copper Flat Mine, incluida el ARD, normalmente están fuera del rango

aceptable de pH y contienen TDS, sulfato y ciertos metales en concentraciones que exceden los estándares de calidad del agua de la Sección 20.6.2.3103 NMAC.

Profundidad al agua subterránea: El agua subterránea debajo de la propuesta Copper Flat Mine se encuentra a una profundidad de 7 a 156 pies aproximadamente con una concentración aproximada de TDS antes de la descarga de 317 a 868 miligramos por litro.

Procedimientos de audiencia: La audiencia se llevará a cabo en conformidad con los Reglamentos de Procedimientos de Permisos de NMED, 20.1.4 NMAC y las Normas de Protección de Aguas Subterráneas y Aguas Superficiales de NMED, 20.6.2.3110 NMAC. Cualquier miembro del público puede asistir a la audiencia y presentar testimonios pertinentes de carácter no técnico, en forma oral o por escrito, y examinar a los testigos que declaren en la audiencia. Para ser parte interesada o para presentar testimonio de carácter técnico, una persona debe seguir los procedimientos descritos a continuación:

Registro de Comparecencia requerido para ser parte interesada: Toda persona que desee ser parte interesada deberá presentar ante el Funcionario de Audiencia y notificar a todas las demás partes registradas, incluyendo NMED y los Solicitantes, un Registro de Comparecencia (*Entry of Appearance*) a más tardar el 24 de agosto de 2018.

Declaración requerida de intención de presentar testimonio de carácter técnico: Toda persona que desee presentar evidencias de carácter técnico, datos o testimonio en la audiencia deberá presentar, ante el Funcionario de Audiencia y notificar a los Solicitantes, NMED y todas las demás partes registradas, una Declaración de Intención de Presentar Testimonio Técnico a más tardar el 24 de agosto de 2018, de conformidad con 20.6.2.3110.C NMAC. Una Declaración de Intención presentada a tiempo se considerará un Registro de Comparecencia. La Declaración de Intención debe cumplir con los requisitos en 20.1.4.300 NMAC y 20.6.2.3110.C NMAC y deberá incluir: (1) nombre de la persona que presenta la declaración; (2) declaración sobre si la persona apoya o se opone al permiso propuesto; (3) nombre, dirección, afiliación, historial académico y laboral de cada testigo; (4) duración estimada del testimonio directo de cada testigo; (5) una lista de documentos y/u objetos de prueba que se ofrecerán como evidencia en la audiencia con una copia de cada documento y/u objeto que aún no forme parte del Registro Administrativo; (6) una lista de todos los materiales técnicos, incluida la información sobre dónde puede obtenerse el material en el que se basó cada testigo al hacer una declaración técnica de hechos u opinión y una explicación de la base para dicha opinión;
y (7) el testimonio directo completo por escrito de cada testigo, incluido cualquier opinión que ofrecerá dicho testigo y una explicación de la base para esa opinión.

La falta de la presentación a tiempo de un Registro de Comparecencia o una Declaración de Intención de Presentar un Testimonio Técnico impedirá que la persona sea parte interesada en el procedimiento y de que presente un testimonio de carácter técnico, pero no impedirá que esa persona presente una declaración de carácter general por escrito o en forma oral, o un testimonio que no sea de carácter técnico en el procedimiento.

Determinación final sobre el permiso por parte de NMED: El Secretario de NMED hará una determinación final aprobando, aprobando condicionalmente o desaprobando el DP-1840 en base

al registro administrativo de la solicitud del permiso, el comentario público y la audiencia pública.

Documentos presentados ante el Funcionario de Audiencia: Todos los documentos que necesitan ser archivados con el Funcionario de Audiencia deberán ser enviados a: John Baca, Hearing Clerk, NMED, P.O. Box 5469, 1190 St. Francis Drive, Santa Fe, New Mexico 87502, teléfono (505) 827-2425.

Documentos entregados a NMED: Todos los documentos que necesitan ser entregados a NMED deberán ser enviados a: Andrew Knight, NMED Office of General Counsel, 1190 South St. Francis Drive, P.O. Box 5469, Santa Fe, New Mexico, 87502-5469, o andrew.knight@state.nm.us.

Información adicional y contacto de NMED: para obtener más información sobre DP-1840 y la audiencia pública, o para ser incluido/a en la lista de correo específica de la instalación, comuníquese con Brad Reid, NMED Ground Water Quality Bureau (GWQB), 1190 St. Francis Drive, P.O. Box 5469, Santa Fe, New Mexico 87502-5469, llamando al (505) 827-2963, o por correo electrónico en brad.reid@state.nm.us. El registro administrativo y el permiso propuesto se pueden ver en la GWQB y en el sitio web de NMED en https://www.env.nm.gov/gwqb/mecs/.

Si alguna persona necesita ayuda, un intérprete o ayuda auxiliar para participar en este proceso, comuníquese con John Baca llamando al (505) 827-2425, o envíe una solicitud por escrito al Sr. Baca, con una antelación mínima de diez (10) días de calendario antes de la audiencia, en NMED, P.O. Box 5469, Santa Fe, New Mexico 87502-5469, o john.baca2@state.nm.us.

El Departamento de Medio Ambiente de Nuevo México no discrimina por motivos de raza, color, origen nacional, discapacidad, edad o sexo en la administración de sus programas o actividades, según lo exigido por las leyes y los reglamentos correspondientes. NMED es responsable de la coordinación de los esfuerzos de cumplimiento y la recepción de consultas relativas a los requisitos de no discriminación implementados por 40 C.F.R. Partes 5 y 7, incluido el Título VI de la Ley de Derechos Civiles de 1964, según enmendada; Sección 504 de la Ley de Rehabilitación de 1973; la Ley de Discriminación por Edad de 1975, Título IX de las Enmiendas de Educación de 1972 y la Sección 13 de las Enmiendas a la Ley Federal de Control de Contaminación del Agua de 1972. Si usted tiene preguntas sobre este aviso o sobre cualquier programa, política o procedimiento de no discriminación de NMED, usted puede comunicarse con la Coordinadora de No Discriminación: Kristine Pintado, Non-Discrimination Coordinator, New Mexico Environment Department, 1190 St. Francis Dr., Suite N4050, P.O. Box 5469, Santa Fe, NM 87502, (505) 827-2855, nd.coordinator@state.nm.us. Si usted piensa que ha sido discriminado/a con respecto a un programa o actividad de NMED, usted puede comunicarse con la Coordinadora de No Discriminación antes indicada.

Transcripciones de la audiencia. De conformidad con 20.6.2.3110.J NMAC, NMED hará una grabación de audio de la audiencia. Si alguna persona solicita una transcripción escrita o una copia certificada del audio grabado, dicha persona deberá pagar el costo de la transcripción o la copia del audio.

Reid, Brad, NMENV

From: Vollbrecht, Kurt, NMENV
Sent: Friday, July 27, 2018 5:21 PM
To: Knight, Andrew, NMENV; Yurdin, Bruce, NMENV; Reid, Brad, NMENV
Subject: FW: Copper Flat Mine Discharge Permit hearing

Fyi.

Kurt Vollbrecht, Program Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-0195

From: Stan Brodsky <stanandrob@windstream.net>
Sent: Friday, July 27, 2018 5:08 PM
To: Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>
Subject: RE: Copper Flat Mine Discharge Permit hearing

Thank you very much for your speedy and concise response. You told me things I was not aware of.

Again, I appreciate your help.

Stan Brodsky

From: Vollbrecht, Kurt, NMENV [mailto:kurt.vollbrecht@state.nm.us]
Sent: Friday, July 27, 2018 4:58 PM
To: Stan Brodsky <stanandrob@windstream.net>
Cc: Reid, Brad, NMENV <brad.reid@state.nm.us>; Knight, Andrew, NMENV <Andrew.Knight@state.nm.us>; Yurdin, Bruce, NMENV <Bruce.Yurdin@state.nm.us>
Subject: RE: Copper Flat Mine Discharge Permit hearing

Dear Mr. Brodsky,

Thank you for your interest in the Copper Flat Mine permitting process. The schedule for the hearing was set by the Hearing Officer. There was discussion among the various parties who have indicated previously they intend to provide technical testimony at the hearing (legal counsel for the following: Elephant Butte Irrigation District, the Ladder Ranch and Pitchfork Ranch, NMED, and NMCC) regarding the possible dates for the hearing, and the Hearing Officer's decision was to hold the hearing on the dates of September 24-28, 2018.

Any further consideration for changing the date of the hearing would need to be addressed by contacting the Hearing Clerk for information on how to approach the Hearing Officer with a request for postponement. The Hearing Clerk is John Baca, and he can be reached at (505) 827-2425 or via email at john.baca2@state.nm.us

Let me know if you have other questions or comments.

Thanks,

Kurt Vollbrecht, Program Manager

Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-0195

From: Stan Brodsky <stanandrob@windstream.net>
Sent: Friday, July 27, 2018 12:37 PM
To: Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>
Subject: RE: Copper Flat Mine Discharge Permit hearing

Mr. Vollbrecht,

The group of us who oppose the re-opening of the mine need more time. We do not have the resources NMCC has, which also include Themac resources. We are a handful of Hillsboro residents, without "big money" available to us, who will be affected dramatically, every day, by the mine. We also have to prepare for another hearing currently scheduled by EMNRD-MMD Director Martinez for August (we are asking for more time there too, since those hearings were originally scheduled for January, 2019). I hope you can see your way to giving us a few more months to prepare.

Thanks for your consideration.

Stan Brodsky
39 Tulpia Trl
Hillsboro, NM 88042

From: Vollbrecht, Kurt, NMENV [mailto:kurt.vollbrecht@state.nm.us]
Sent: Thursday, July 26, 2018 11:16 AM
To: Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>
Cc: Reid, Brad, NMENV <brad.reid@state.nm.us>
Subject: Copper Flat Mine Discharge Permit hearing

Dear concerned citizen,

The New Mexico Environment Department (NMED) is sending this email in response to your comments regarding the proposed draft discharge permit for the Copper Flat Mine, DP-1840. NMED will hold a public hearing on the proposed discharge permit beginning on September 24th at 9:00 AM, continuing until September 28th as necessary. In the event the hearing is not completed by September 28th at 5:00 PM, the hearing will recommence on October 9th.

The public hearing will be held in Truth or Consequences at the Ralph Edwards Auditorium, 400 West Fourth Street. There will be multiple opportunities for public comment during the hearing, in addition to a specific public comment period between the hours of 5:00 PM and 10:00 PM on September 25, 2018. Any member of the public may provide comments during the times set aside for comment. No pre-hearing submittal or filing of a notice of intent is necessary to provide public comment.

In the event you would like to file a Notice of Intent to be a direct party to the proceeding, including providing direct technical testimony under oath, engaging in cross examination of witnesses, and being subject to cross examination by other parties, please contact Andrew Knight of the NMED at (505) 222-9540 or andrew.knight@state.nm.us for further information.

Your name and email address has been included on the site-specific mailing list for this permitting action and you will receive official notification via email of the hearing when the general public notice is issued.

NMED appreciates your interest in permitting for the Copper Flat Mine, and shares your interest in protection of human health and the environment.

Please contact me at the number listed below or by email, or the permit lead Brad Reid at (505) 827-2963 or by email at Brad.reid@state.nm.us if you have any questions.

Thank you,

Kurt Vollbrecht, Program Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-0195

From: Vollbrecht, Kurt, NMENV
To: Vollbrecht, Kurt, NMENV
Cc: Reid, Brad, NMENV
Subject: NMED-GWQB: Notice of Public Hearing - Copper Flat Mine - DP-1840
Date: Wednesday, August 08, 2018 4:06:34 PM

Dear concerned citizen,

Below is official public notification regarding a hearing on the proposed Copper Flat Mine discharge permit, DP-1840. Links in this email provide access to the official public notice as a well as a fact sheet associated with the permitting process.

Please do not hesitate to contact me or Brad Reid if you have any questions. Contact information for both of us is provided below.

Thank you for your interest.

Kurt Vollbrecht, Program Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-0195

NMED Banner

Ground Water Quality Bureau

Notice of Public Hearing - Copper Flat Mine - DP-1840

The New Mexico Environment Department (NMED) will hold a public hearing beginning at **9:00 a.m. on September 24, 2018**, and proceed through September 28, 2018 as necessary, at the **Ralph Edwards Auditorium in Truth or Consequences, New Mexico**. In the event the hearing is not completed by September 28, the hearing will continue beginning October 9, 2018 and proceed through October 12, 2018 as necessary. The hearing will consider a proposed groundwater discharge permit (Discharge Permit or DP-1840) prepared by NMED in response to a permit application submitted by New Mexico Copper Corporation (NMCC or Applicant) for discharges from the proposed Copper Flat Mine (Facility). The Hearing Officer will provide opportunities for general oral statements or non-technical testimony from members of the public throughout the hearing at breaks in the presentation of technical testimony, and in a public comment session beginning at 5:00 p.m. on September 25, 2018 and continuing as long as there is comment to be given. A Spanish-language interpreter will be available at the hearing.

El Departamento de Medio Ambiente de Nuevo México (NMED, por sus siglas en inglés) celebrará una audiencia pública a partir de las **9:00 a.m. del 24 de septiembre de 2018** y continuará hasta el 28 de septiembre de 2018 según sea necesario, en el **auditorio Ralph Edwards en Truth or Consequences, Nuevo México**. En caso de que la audiencia no se haya completado para el 28 de septiembre, la audiencia continuará a partir del 9 de octubre de 2018 y continuará hasta el 12 de octubre de 2018, según sea necesario. La audiencia considerará un permiso propuesto de descarga en aguas subterráneas (Permiso de Descarga o DP-1840) preparado por NMED en respuesta a una solicitud de permiso presentada por New Mexico Copper Corporation (NMCC o Solicitante) para las descargas de la propuesta

Copper Flat Mine (Instalación). El Funcionario de Audiencias brindará oportunidades para declaraciones orales generales o testimonios de carácter no técnicos de miembros del público durante la audiencia durante los descansos en la presentación de testimonios de carácter técnico, y en una sesión de comentarios públicos que comenzará a las 5:00 p.m. el 25 de septiembre de 2018 y continuará mientras haya comentarios. Un intérprete de español estará disponible durante la audiencia.

Notice of Public Hearing (English)

Aviso de Audiencia Pública (Español)

Fact Sheet (English)

Hoja de Datos (Español)

Draft Permit

NMED does not discriminate on the basis of race, color, national origin, disability, age or sex in the administration of its programs or activities, as required by applicable laws and regulations. NMED is responsible for coordination of compliance efforts and receipt of inquiries concerning non-discrimination requirements implemented by 40 C.F.R. Part 7, including Title VI of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and Section 13 of the Federal Water Pollution Control Act Amendments of 1972. If you have any questions about this notice or any of NMED's non-discrimination programs, policies or procedures, you may contact: Kristine Pintado, Non-Discrimination Coordinator, New Mexico Environment Department, 1190 St. Francis Dr., Suite N4050, P.O. Box 5469, Santa Fe, NM 87502, (505) 827-2855, nd.coordinator@state.nm.us. If you believe that you have been discriminated against with respect to a NMED program or activity, you may contact the Non-Discrimination Coordinator identified above or visit our website at https://www.env.nm.gov/non-employee-discrimination-complaint-page/ to learn how and where to file a complaint of discrimination.

NMED no discrimina por motivos de raza, color, origen nacional, discapacidad, edad o sexo en la administración de sus programas o actividades, según lo exigido por las leyes y los reglamentos correspondientes. NMED es responsable de la coordinación de los esfuerzos de cumplimiento y la recepción de consultas relativas a los requisitos de no discriminación implementados por 40 C.F.R., partes 5 y 7, incluido el Título VI de la Ley de Derechos Civiles de 1964, según enmendada; Sección 504 de la Ley de Rehabilitación de 1973; la Ley de Discriminación por Edad de 1975, Título IX de las Enmiendas de Educación de 1972 y la Sección 13 de las Enmiendas a la Ley Federal de Control de Contaminación del Agua de 1972. Si usted tiene preguntas sobre este aviso o sobre cualquier programa, política o procedimiento de no discriminación de NMED, usted puede comunicarse con la Coordinadora de No Discriminación: Kristine Pintado, Non-Discrimination Coordinator, New Mexico Environment Department, 1190 St. Francis Dr., Suite N4050, P.O. Box 5469, Santa Fe, NM 87502, (505) 827-2855, nd.coordinator@state.nm.us. Si usted piensa que ha sido discriminado/a con respecto a un programa o actividad de NMED, usted puede comunicarse con la Coordinadora de No Discriminación antes indicada o visitar nuestro sitio web en https://www.env.nm.gov/non-employee-discrimination-complaint-page/ para aprender cómo y dónde presentar una queja de discriminación.

GWQB DISCHARGE PERMIT CONTACT:

Brad Reid at Brad.Reid@state.nm.us or 505-827-2963

https://www.env.nm.gov/gwb/

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Reid, Brad, NMENV

From: Katie Emmer <kemmer@themacresourcesgroup.com>
Sent: Friday, August 10, 2018 10:40 AM
To: Vollbrecht, Kurt, NMENV
Cc: Reid, Brad, NMENV
Subject: Copper Flat Public Notice posted in Sierra County
Attachments: CopperFlat_PN_Posting8Aug2018.pdf

Hi Kurt,

The NMED Copper Flat public notice was posted in both English and Spanish this week in the following locations in Sierra County-

1. Elephant Butte Municipal Building
2. Truth or Consequences Clerk's Office
3. Sierra County Clerk's Office
4. Truth or Consequences Post Office (1507 N Date Street)
5. Williamsburg Village Municipal Office
6. Notice of notice in Hillsboro Post Office, Notice documents at Hillsboro Public Library

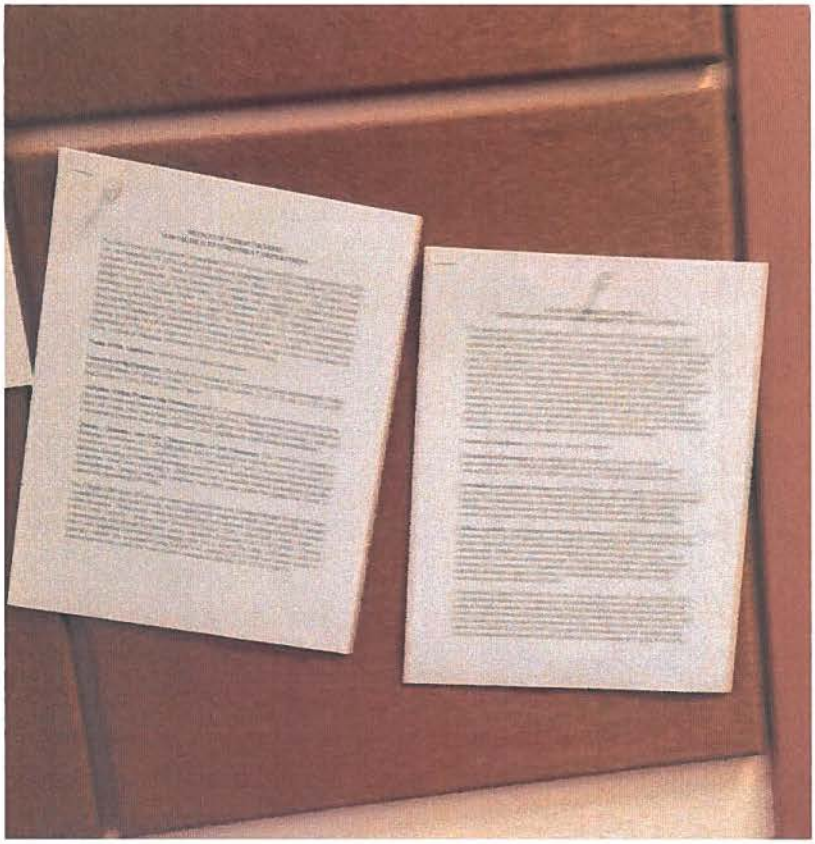
Photos attached.

Best regards,

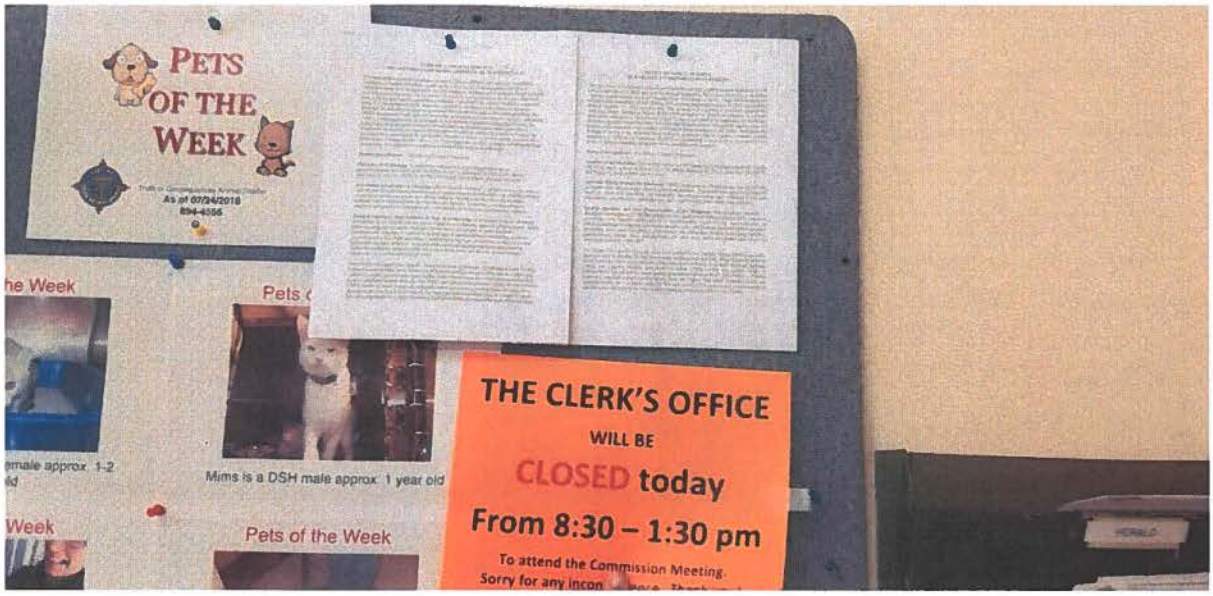
Katie

NMED Copper Flat Public Notice Posted in Sierra County 8 August 2018

Photos with captions below

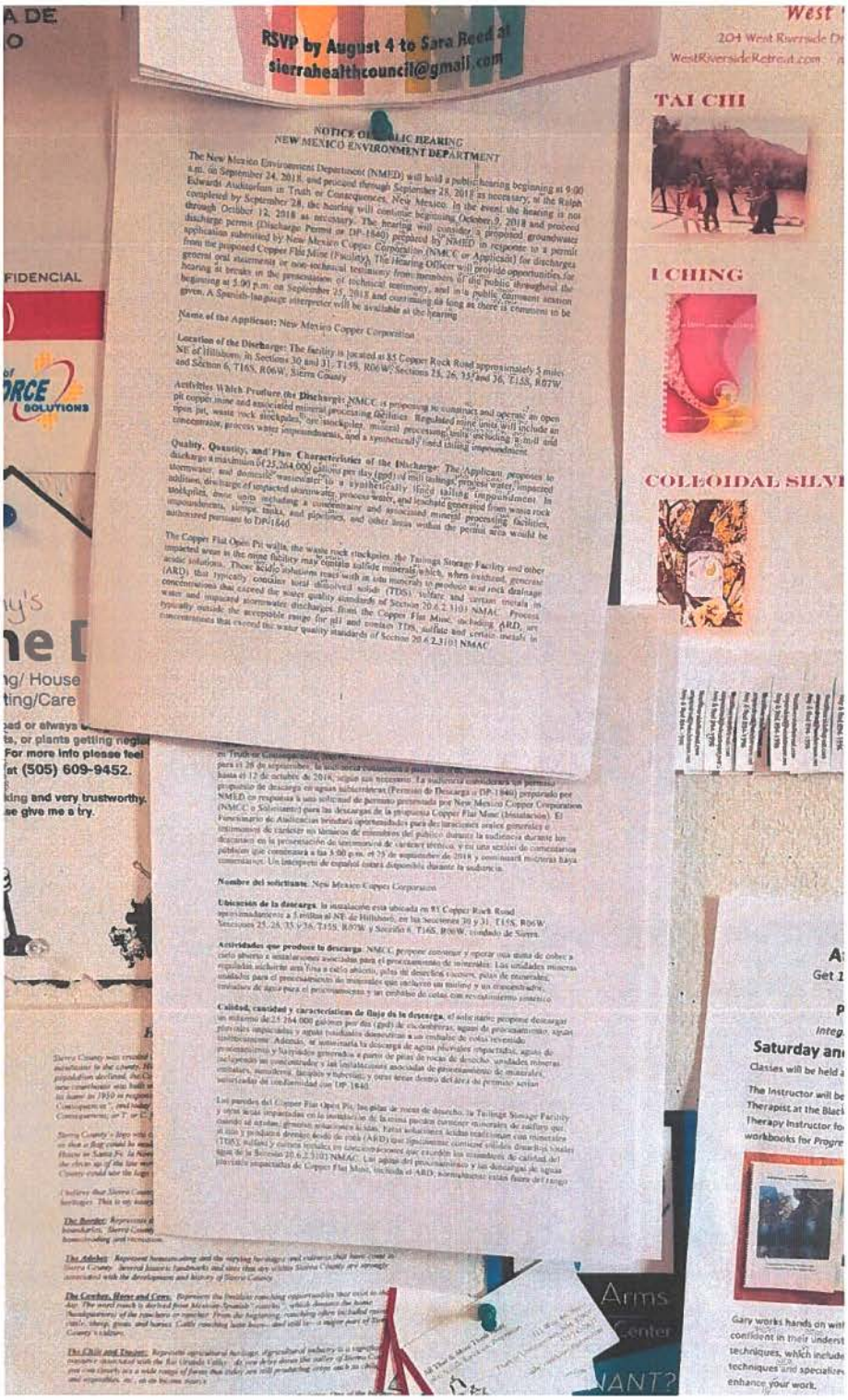


Elephant Butte Municipal Building



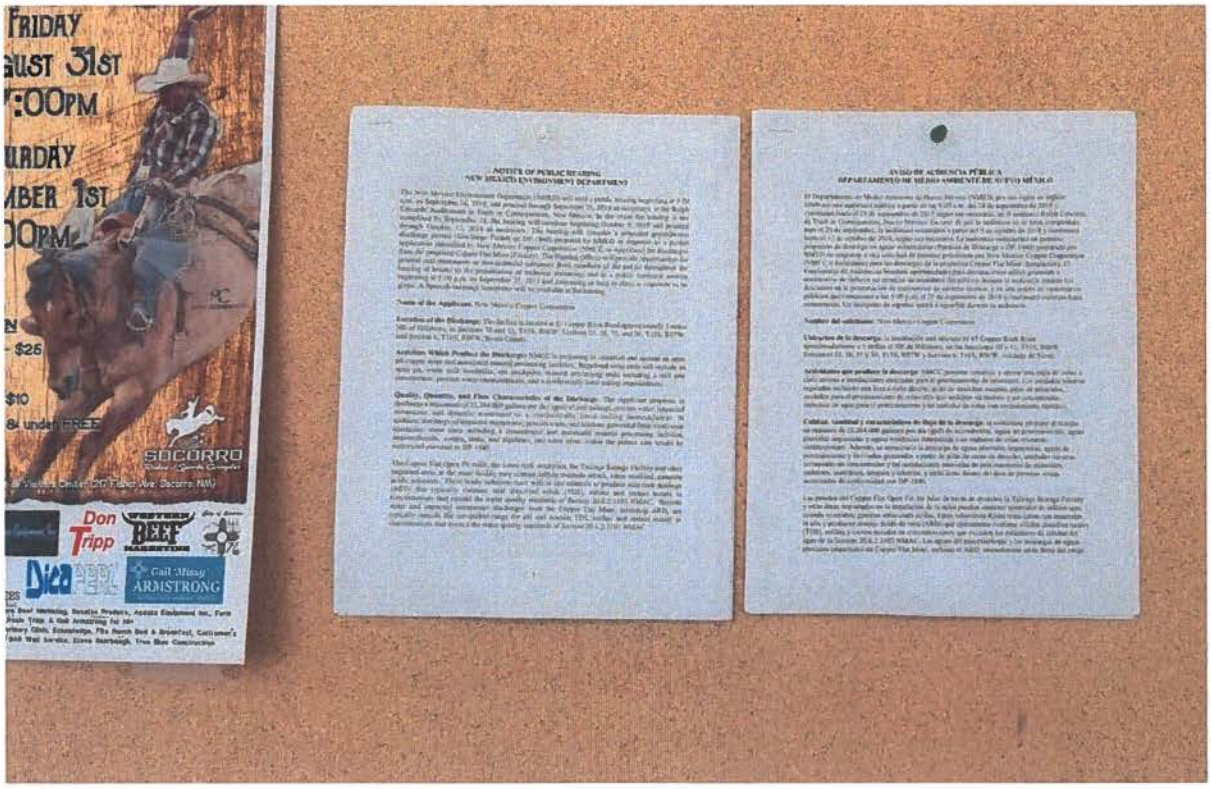
Truth or Consequences Clerk's Office

NMED Copper Flat Public Notice Posted in Sierra County 8 August 2018



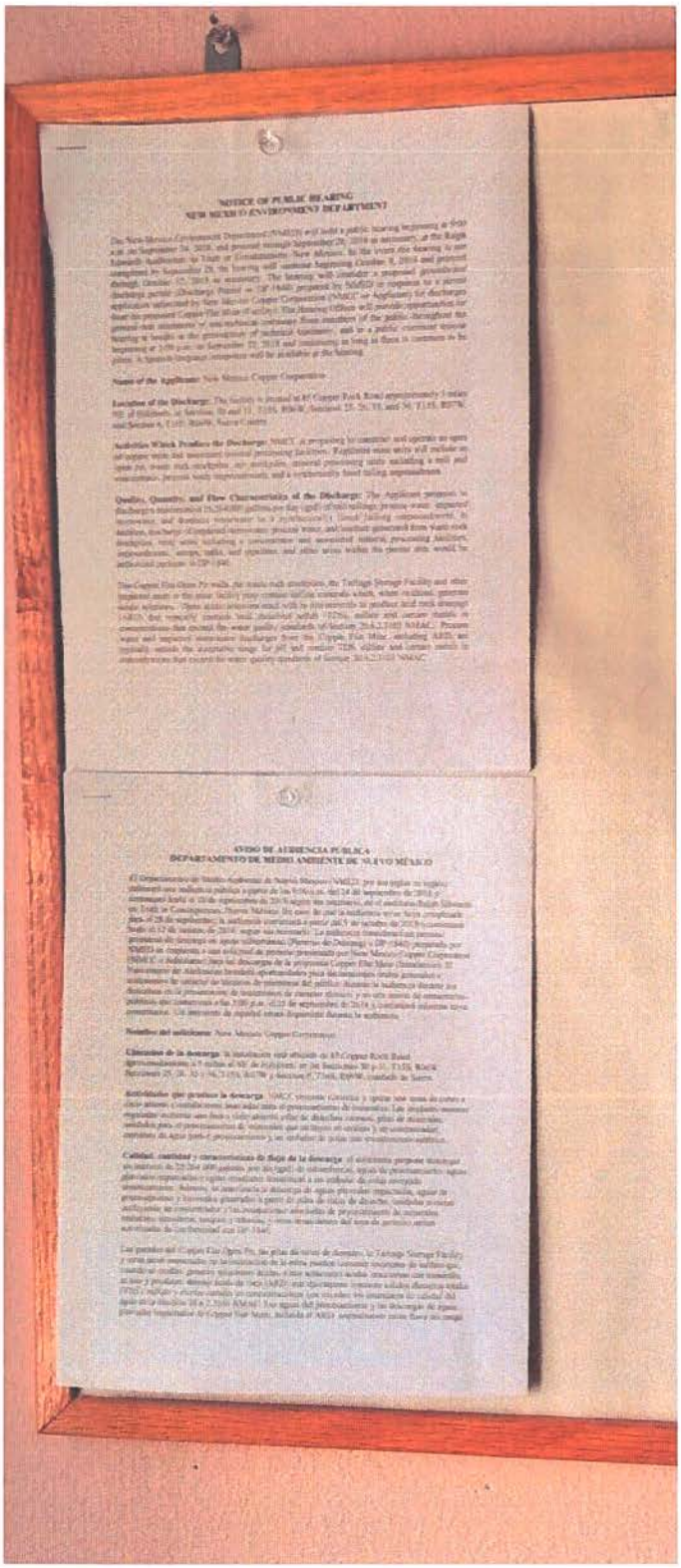
Sierra County Clerk's Offices Public Bulletin Board

NMED Copper Flat Public Notice Posted in Sierra County 8 August 2018



Truth or Consequences Post Office – 1507 N Date St T or C, NM 87901

NMED Copper Flat Public Notice Posted in Sierra County 8 August 2018

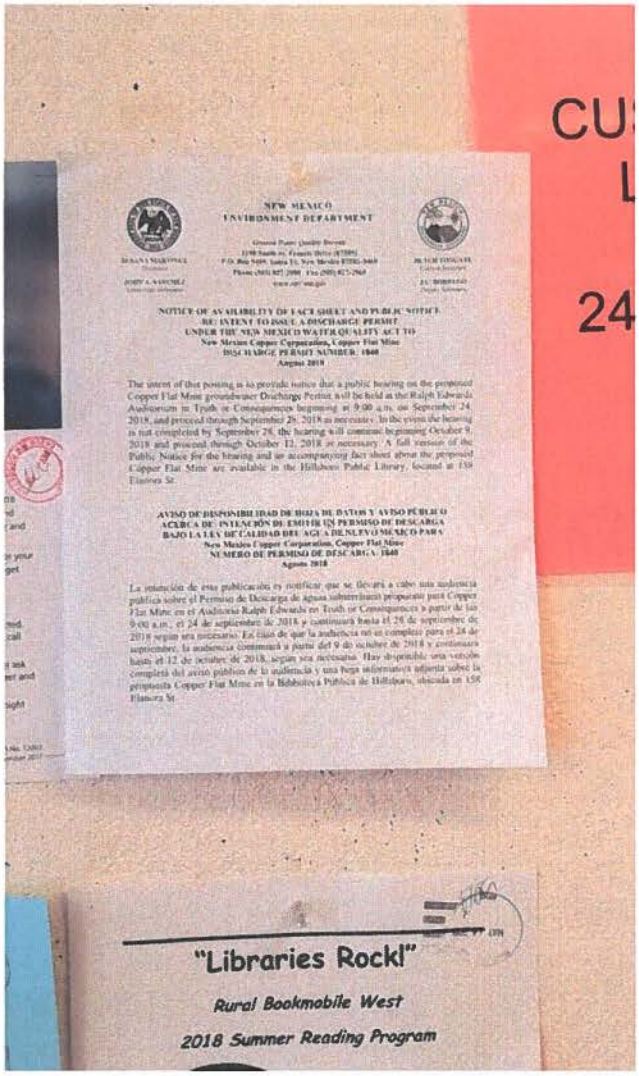


NOTICE OF PUBLIC HEARING
NEW MEXICO ENVIRONMENT DEPARTMENT

AVISO DE AUDIENCIA PÚBLICA
DEPARTAMENTO DE MEDIO AMBIENTE DE NUEVO MÉXICO

Williamsburg Village Municipal Office

NMED Copper Flat Public Notice Posted in Sierra County 8 August 2018



Inside Hillsboro Post Office – Dropped off notice documents at Hillsboro Public Library

Reid, Brad, NMENV

From: Katie Emmer <kemmer@themacresourcesgroup.com>
Sent: Thursday, August 09, 2018 4:20 PM
To: Reid, Brad, NMENV
Subject: Copper Flat Map
Attachments: CopperFlat_Wells_NMED_Request9August2018.pdf

Hi Brad,

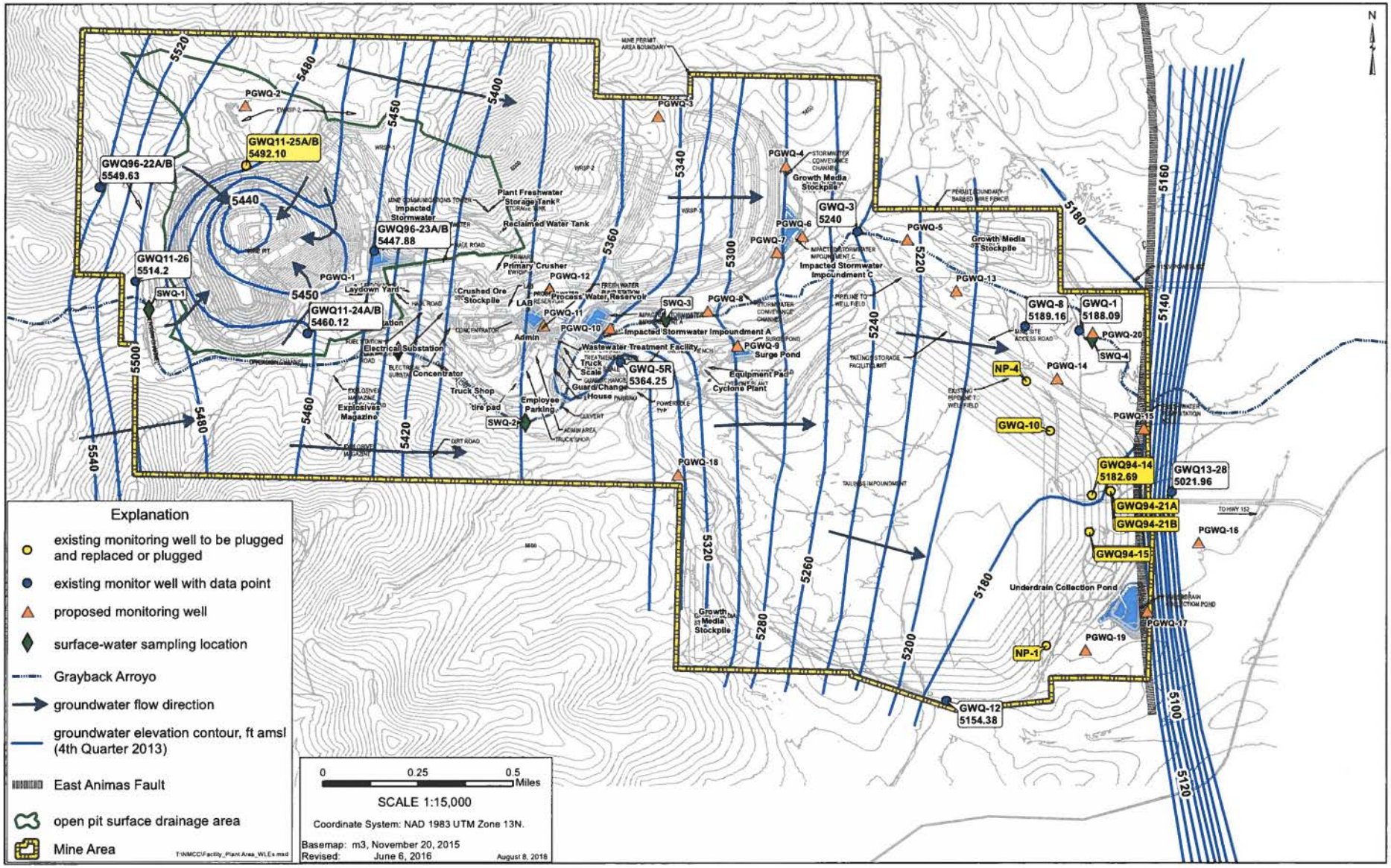
Here's the map you requested. Please let me know if you need anything else.

Regards,

Katie Emmer | Permitting & Environmental Compliance Manager

M: +1 505.400.7925| **F:** +1 505.881.4616
A: 4253 Montgomery Blvd. NE, Suite 130, Albuquerque, NM 87109
W: themacresourcesgroup.com | **E:** kemmer@themacresourcesgroup.com

THE MAC RESOURCES | NEW MEXICO COPPER CORPORATION


Explanation
existing monitoring well to be plugged and replaced or plugged
existing monitor well with data point
proposed monitoring well
surface-water sampling location
Grayback Arroyo
groundwater flow direction
groundwater elevation contour, ft amsl (4th Quarter 2013)
East Animas Fault
open pit surface drainage area
Mine Area
0 0.25 0.5 Miles
SCALE 1:15,000
Coordinate System: NAD 1983 UTM Zone 13N.
Basemap: m3, November 20, 2015
Revised: June 6, 2016
August 8, 2016
GWQ11-25A/B 5492.10
GWQ96-22A/B 5549.63
GWQ96-23A/B 5447.88
GWQ11-26 5514.2
GWQ11-24A/B 5460.12
GWQ-5R 5364.25
GWQ-3 5240
GWQ-8 5189.16
GWQ-1 5188.09
GWQ94-14 5182.69
GWQ13-28 5021.96
GWQ-12 5154.38
PGWQ-1
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PGWQ-18
PGWQ-19
PGWQ-20
SWQ-1
SWQ-2
SWQ-3
SWQ-4
NP-1
NP-4
GWQ-10
GWQ94-21A
GWQ94-21B
GWQ94-15
Impacted Stormwater Impounment A
Impacted Stormwater Impoundment C
Wastewater Treatment Facility
Surge Pond
Equipment Pad
Cyclone Plant
Growth Media Stockpile
Crushed Ore Stockpile
Primary Crusher
Process Water Reservoir
Reclaimed Water Tank
Plant Freshwater Storage Tank
Laydown Yard
Electrical Substation
Concentrator
Truck Shop
Truck Scale
Guard/Change House
Employee Parking
Explosives Magazine
Admin
LAB
Underdrain Collection Pond
TAILINGS IMPOUNDMENT
MINE PERMIT AREA BOUNDARY
PERMIT BOUNDARY BARBED WIRE FENCE
5520
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5260
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N

Reid, Brad, NMENV

From: Herald Herald <herald@torcherald.com>
Sent: Saturday, August 11, 2018 10:07 AM
To: Farrell, Lochlin, NMENV
Cc: Vollbrecht, Kurt, NMENV; Reid, Brad, NMENV
Subject: Re: NMED Ground Water Quality Bureau - Legal Ads - Public Notice
Attachments: PROOF - English.pdf; PROOF - Spanish.pdf; INV#11517.pdf

Importance: High

Legals will run 8-15-2018

THIS IS A PROOF CLIP ONLY

Please review your legal. If you see any errors, bring it to our attention as soon as possible. You will receive your Notarized Proof of Publication as soon as payment in full is received and the legal notice has published the requested number of times in The HERALD, the official legal publication in Sierra County.

Thank you for trusting The HERALD with your legal publication needs.

THE HERALD

PO Box 752

T or C, NM 87901

575.894.2143 • Fax 575.894.7824

Email: herald@torcherald.com

Cindy Haro

Associate Publisher

From: Farrell, Lochlin, NMENV <Lochlin.Farrell@state.nm.us>
Sent: Friday, August 10, 2018 1:36:47 PM
To: Herald Herald
Cc: Vollbrecht, Kurt, NMENV; Reid, Brad, NMENV
Subject: FW: NMED Ground Water Quality Bureau - Legal Ads - Public Notice

Good afternoon,

Thank you greatly for your follow-up today. I understand the initial submission of these notices were not received. Please publish the attached notices in the next publication of the Herald (1 time only). Please provide a quote, ad number, and a proof for review.

I will be out of the office at 3pm; however, please do contact me by cell at (505) 681-9073 to confirm that you have received this submission.

Please send invoices for the Ground Water Quality Bureau to:
GWQB.Invoices@state.nm.us
Please provide the ad number on the invoice to help us process the invoice.

PO# 66700-0000031947

Please send affidavit to:
STATE OF NEW MEXICO
NMED / Ground Water Quality Bureau
Harold Runnels Building, N2250
1190 St. Francis Drive / PO Box 5469
Santa Fe, NM 87502-5469

Thank you so much!

Lochlin Farrell
Data Steward
Ground Water Quality Bureau
New Mexico Environment Department
D:505.827.2905 F:505.827.2965
lochlin.farrell@state.nm.us

From: Farrell, Lochlin, NMENV
Sent: Friday, August 03, 2018 4:56 PM
To: 'herald@torcherald.com' <herald@torcherald.com>
Cc: Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>
Subject: NMED Ground Water Quality Bureau - Legal Ads - Public Notice dated 8/8/18

To whom it may concern (Legal Ad Dept.),

Please publish the attached Public Notice in the legal section of The Herald on or before **Wednesday (8/8/18),** (1 time only).

Please provide a quote, ad number, and a proof for review.

Please send invoices for the Ground Water Quality Bureau to:
GWQB.Invoices@state.nm.us
Please provide the ad number on the invoice to help us process the invoice.

PO# 66700-0000031947

Please send affidavit to:
STATE OF NEW MEXICO
NMED / Ground Water Quality Bureau
Harold Runnels Building, N2250
1190 St. Francis Drive / PO Box 5469
Santa Fe, NM 87502-5469

Thank you,

Lochlin Farrell
Data Steward
Ground Water Quality Bureau
New Mexico Environment Department
D:505.827.2905 F:505.827.2965
lochlin.farrell@state.nm.us

LEGALS

ENGLISH NOTICE OF PUBLIC HEARING NEW MEXICO ENVIRONMENT DEPARTMENT

The New Mexico Environment Department (NMED) will hold a public hearing beginning at 9:00 a.m. on September 24, 2018, and proceed through September 28, 2018 as necessary, at the Ralph Edwards Auditorium in Truth or Consequences, New Mexico. In the event the hearing is not completed by September 28, the hearing will continue beginning October 9, 2018 and proceed through October 12, 2018 as necessary. The hearing will consider a proposed groundwater discharge permit (Discharge Permit or DP-1840) prepared by NMED in response to a permit application submitted by New Mexico Copper Corporation (NMCC or Applicant) for discharges from the proposed Copper Flat Mine (Facility). The Hearing Officer will provide opportunities for general oral statements or non-technical testimony from members of the public throughout the hearing at breaks in the presentation of technical testimony, and in a public comment session beginning at 5:00 p.m. on September 25, 2018 and continuing as long as there is comment to be given. A Spanish-language interpreter will be available at the hearing.

Name of the Applicant: New Mexico Copper Corporation

Location of the Discharge: The facility is located at 85 Copper Rock Road approximately 5 miles NE of Hillsboro, in Sections 30 and 31, T15S, R06W, Sections 25, 26, 35, and 36, T15S, R07W, and Section 6, T16S, R06W, Sierra County. **Activities Which Produce the Discharge:** NMCC is proposing to construct and operate an open pit copper mine and associated mineral processing facilities. Regulated mine units will include an open pit, waste rock stockpiles, ore stockpiles, mineral processing units including a mill and concentrator, process water impoundments, and a synthetically lined tailing impoundment. **Quality, Quantity, and Flow Characteristics of the Discharge:** The Applicant proposes to discharge a maximum of 25,264,000 gallons per day (gpd) of mill tailings, process water, impacted stormwater, and domestic wastewater to a synthetically lined tailing impoundment. In addition, discharge of impacted stormwater, process water, and leachate generated from waste rock stockpiles, mine units including a concentrator and associated mineral processing facilities, impoundments, sumps, tanks, and pipelines, and other areas within the permit area would be authorized pursuant to DP-1840.

The Copper Flat Open Pit walls, the waste rock stockpiles, the Tailings Storage Facility and other impacted areas at the mine facility may contain sulfide minerals which, when oxidized, generate acidic solutions. These acidic solutions react with in situ minerals to produce acid rock drainage (ARD) that typically contains total dissolved solids (TDS), sulfate and certain metals in concentrations that exceed the water quality standards of Section 20.6.2.3103 NMAC. Process water and impacted stormwater discharges from the Copper Flat Mine, including ARD, are typically outside the acceptable range for pH and contain TDS, sulfate and certain metals in concentrations that exceed the water quality standards of Section 20.6.2.3103 NMAC.

Depth to Groundwater: Ground water beneath the proposed Copper Flat Mine is at a depth of approximately 7 to 156 feet with a pre-discharge TDS concentration of approximately 317 to 868 milligrams per liter.

Hearing Procedures: The hearing will be conducted pursuant to the NMED Permit Procedures regulations, 20.1.4 NMAC, and the NMED Ground and Surface Water Protection regulations, 20.6.2.3110 NMAC. Any member of the public may attend the hearing and present relevant non-technical testimony, orally or in writing, and examine witnesses testifying at the hearing. To be a party or to present technical testimony, a person must follow the procedures below:

Entry of Appearance Required to be a Party: Any person who wishes to be a party shall file with the Hearing Clerk, and serve upon all other parties of record, including NMED and the Applicants, an Entry of Appearance on or before August 24, 2018. **Statement of Intent to Present Technical Testimony Required:** Any person who wishes to present technical evidence, data, or testimony at the hearing shall file with the Hearing Clerk and serve on the Applicants, NMED, and all other parties of record a Statement of Intent to Present Technical Testimony on or before **August 24, 2018,** pursuant to 20.6.2.3110.C NMAC. A timely filed Statement of Intent shall be considered an Entry of Appearance. The Statement of Intent must comply with the requirements in 20.1.4.300 NMAC and 20.6.2.3110.C NMAC and shall include: (1) the name of the person filing the statement; (2) a statement as to whether the person supports or opposes the proposed permit; (3) the name, address, affiliation, work background, and educational background of each witness; (4) the estimated length of direct testimony of each witness; (5) a list of exhibits to be offered into evidence at the hearing with a copy of each exhibit that is not already part of the Record Proper; (6) a list of all technical materials, including information where the material can be obtained, relied upon by each witness in making a technical statement of fact or opinion and an explanation of the basis for such an opinion; and (7) the full written direct testimony of each witness including any opinions to be offered by such witness and an explanation of the basis for that opinion.

Failure to file a timely Entry of Appearance or Statement of Intent to Present Technical Testimony shall preclude a person from being a party to the proceeding and from presenting technical testimony, but shall not preclude a person from presenting a general written or oral statement or non-technical testimony in the proceeding.

Final Determination on Permit by NMED: The Secretary of NMED will make a final determination approving, conditionally approving, or disapproving DP-1840 based on the administrative record for the permit application, public comment, and the public hearing.

Documents Filed with Hearing Clerk: All documents that need to be filed with the Hearing Clerk shall be submitted to: John Baca, Hearing Clerk, NMED, P.O. Box 5469, 1190 St. Francis Drive, Santa Fe, New Mexico 87502, (505) 827-2430.

Documents Served on NMED: All documents that need to be served on NMED shall be sent to: Andrew Knight, NMED Office of General Counsel, 1190 South St. Francis Drive, P.O. Box 5469, Santa Fe, New Mexico, 87502-5469, or andrew.knight@state.nm.us.

Further Information and NMED Contact: For further information on DP-1840 and the public hearing, or to be placed on the facility-specific mailing list, please contact Brad Reid, NMED Ground Water Quality Bureau (GWQB), 1190 St. Francis Drive, P.O. Box 5469, Santa Fe, New Mexico 87502-5469, at (505) 827-2963, or at brad.reid@state.nm.us. The administrative record and the proposed permit can be viewed at the GWQB, and on the NMED website at https://www.env.nm.gov/gwqb/mecs/.

If any person requires assistance, an interpreter, or auxiliary aid to participate in this process, please contact John Baca at (505) 827-2430, or submit a written request to Mr. Baca, at least ten (10) calendar days prior to the hearing at NMED, P.O. Box 5469, Santa Fe, New Mexico 87502-5469, or john.baca2@state.nm.us.

NMED does not discriminate on the basis of race, color, national origin, disability, age or sex in the administration of its programs or activities, as required by applicable laws and regulations. NMED is responsible for coordination of compliance efforts and receipt of inquiries concerning non-discrimination requirements implemented by 40 C.F.R. Part 7, including Title VI of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and Section 13 of the Federal Water Pollution Control Act Amendments of 1972. If you have any questions about this notice or any of NMED's non-discrimination programs, policies or procedures, you may contact: Kristine Pintado, Non-Discrimination Coordinator, NMED, 1190 St. Francis Dr., Suite N4050,

P.O. Box 5469, Santa Fe, NM 87502, (505) 827-2855, nd.coordinator@state.nm.us. If you believe that you have been discriminated against with respect to a NMED program or activity, you may contact the Non-Discrimination Coordinator identified above.

Transcripts of Hearing. Pursuant to 20.6.2.3110.J NMAC, NMED will make an audio recording of the hearing. If any person requests a written transcript or certified copy of the audio recording, the requestor shall pay the cost of the transcription or audio copying.

Pub: The Herald
Req: NMED/GWQB
August 15, 2018
This legal is posted at
www.publicnoticeads.com

***

END OF RUN

LEGALS

SPANISH
AVISO DE AUDIENCIA PUBLICA DEPARTAMENTO DE MEDIO AMBIENTE DE NUEVO MEXICO

El Departamento de Medio Ambiente de Nuevo Mexico (NMED, por sus siglas en ingles) celebrara una audiencia publica a partir de las 9:00 a.m. del 24 de septiembre de 2018 y continuara hasta el 28 de septiembre de 2018 segun sea necesario, en el auditorio Ralph Edwards en Truth or Consequences, Nuevo Mexico. En caso de que la audiencia no se haya completado para el 28 de septiembre, la audiencia continuara a partir del 9 de octubre de 2018 y continuara hasta el 12 de octubre de 2018, segun sea necesario. La audiencia considerara un permiso propuesto de descarga en aguas subterraneas (Permiso de Descarga o DP-1840) preparado por NMED en respuesta a una solicitud de permiso presentada por New Mexico Copper Corporation (NMCC o Solicitante) para las descargas de la propuesta Copper Flat Mine (Instalacion). El Funcionario de Audiencias brindara oportunidades para declaraciones orales generales o testimonios de caracter no tecnicos de miembros del publico durante la audiencia durante los descansos en la presentacion de testimonios de caracter tecnico, y en una sesion de comentarios publicos que comenzara a las 5:00 p.m. el 25 de septiembre de 2018 y continuara mientras haya comentarios. Un interprete de espanol estara disponible durante la audiencia.

Nombre del solicitante: New Mexico Copper Corporation

Ubicacion de la descarga: la instalacion esta ubicada en 85 Copper Rock Road aproximadamente a 5 millas al NE de Hillsboro, en las Secciones 30 y 31, T15S, R06W, Secciones 25, 26, 35 y 36, T15S, R07W y Seccion 6, T16S, R06W, condado de Sierra.

Actividades que produce la descarga: NMCC propone construir y operar una mina de cobre a cielo abierto e instalaciones asociadas para el procesamiento de minerales. Las unidades mineras reguladas incluiran una fosa a cielo abierto, pilas de desechos rocosos, pilas de minerales, unidades para el procesamiento de minerales que incluyen un molino y un concentrador, embalses de agua para el procesamiento y un embalse de colas con revestimiento sintetico.

Calidad, cantidad y caracteristicas de flujo de la descarga: el solicitante propone descargar un maximo de 25.264.000 galones por dia (gpd) de escombreras, aguas de procesamiento, aguas pluviales impactadas y aguas residuales domesticas a un embalse de colas revestido sinteticamente. Ademas, se autorizaria la descarga de aguas pluviales impactadas, aguas de procesamiento y lixiviados generados a partir de pilas de rocas de desecho, unidades mineras incluyendo un concentrador y las instalaciones asociadas de procesamiento de minerales, embalses, sumideros, tanques y tuberias, y otras areas dentro del area de permiso serian autorizadas de conformidad con DP-1840.

Las paredes del Copper Flat Open Pit, las pilas de rocas de desecho, la Tailings Storage Facility y otras areas impactadas en la instalacion de la mina pueden contener minerales de sulfuro que, cuando se oxidan, generan soluciones acidas. Estas soluciones acidas reaccionan con minerales in situ y producen drenaje acido de roca (ARD) que tipicamente contiene solidos disueltos totales (TDS), sulfato y ciertos metales en concentraciones que exceden los estandares de calidad del agua de la Seccion 20.6.2.3103 NMAC. Las aguas del procesamiento y las descargas de aguas pluviales impactadas de Copper Flat Mine, incluida el ARD, normalmente estan fuera del rango aceptable de pH y contienen TDS, sulfato y ciertos metales en concentraciones que exceden los estandares de calidad del agua de la Seccion 20.6.2.3103 NMAC.

Profundidad al agua subterranea: El agua subterranea debajo de la propuesta Copper Flat Mine se encuentra a una profundidad de 7 a 156 pies aproximadamente con una concentracion aproximada de TDS antes de la descarga de 317 a 868 miligramos por litro.

Procedimientos de audiencia: La audiencia se llevara a cabo en conformidad con los Reglamentos de Procedimientos de Permisos de NMED, 20.1.4 NMAC y las Normas de Proteccion de Aguas Subterraneas y Aguas Superficiales de NMED, 20.6.2.3110 NMAC. Cualquier miembro del publico puede asistir a la audiencia y presentar testimonios pertinentes de caracter no tecnico, en forma oral o por escrito, y examinar a los testigos que declaren en la audiencia. Para ser parte interesada o para presentar testimonio de caracter tecnico, una persona debe seguir los procedimientos descritos a continuacion:

Registro de Comparecencia requerido para ser parte interesada: Toda persona que desee ser parte interesada debera presentar ante el Funcionario de Audiencia y notificar a todas las demas partes registradas, incluyendo NMED y los Solicitantes, un Registro de Comparecencia (Entry of Appearance) a mas tardar el 24 de agosto de 2018.

Declaracion requerida de intencion de presentar testimonio de caracter tecnico: Toda persona que desee presentar evidencias de caracter tecnico, datos o testimonio en la audiencia debera presentar, ante el Funcionario de Audiencia y notificar a los Solicitantes, NMED y todas las demas partes registradas, una Declaracion de Intencion de Presentar Testimonio Tecnico a mas tardar el 24 de agosto de 2018, de conformidad con 20.6.2.3110.C NMAC. Una Declaracion de Intencion presentada a tiempo se considerara un Registro de Comparecencia. La Declaracion de Intencion debe cumplir con los requisitos en 20.1.4.300 NMAC y 20.6.2.3110.C NMAC y debera incluir: (1) nombre de la persona que presenta la declaracion; (2) declaracion sobre si la persona apoya o se opone al permiso propuesto; (3) nombre, direccion, afiliacion, historial academico y laboral de cada testigo; (4) duracion estimada del testimonio directo de cada testigo; (5) una lista de documentos y/u objetos de prueba que se ofreceran como evidencia en la audiencia con una copia de cada documento y/u objeto que aun no forme parte del Registro Administrativo; (6) una lista de todos los materiales tecnicos, incluida la informacion sobre donde puede obtenerse el material en el que se baso cada testigo al hacer una declaracion tecnica de hechos u opinion y una explicacion de la base para dicha opinion; y (7) el testimonio directo completo por escrito de cada testigo, incluido cualquier opinion que ofrecera dicho testigo y una explicacion de la base para esa opinion.

La falta de la presentacion a tiempo de un Registro de Comparecencia o una Declaracion de Intencion de Presentar un Testimonio Tecnico impedira que la persona sea parte interesada en el procedimiento y de que presente un testimonio de caracter tecnico, pero no impedira que esa persona presente una declaracion de caracter general por escrito o en forma oral, o un testimonio que no sea de caracter tecnico en el procedimiento.

Determinacion final sobre el permiso por parte de NMED: El Secretario de NMED hara una determinacion final aprobando, aprobando condicionalmente o desaprobando el DP-1840 en base al registro administrativo de la solicitud del permiso, el comentario publico y la audiencia publica.

Documentos presentados ante el Funcionario de Audiencia: Todos los documentos que necesitan ser archivados con el Funcionario de Audiencia deberan ser enviados a: John Baca, Hearing Clerk, NMED, P.O. Box 5469, 1190 St. Francis Drive, Santa Fe, New Mexico 87502, telefono (505) 827-2430.

Documentos entregados a NMED: Todos los documentos que necesitan ser entregados a NMED deberan ser enviados a: Andrew Knight, NMED Office of General Counsel, 1190 South St. Francis Drive, P.O. Box 5469, Santa Fe, New Mexico, 87502-5469, o andrew.knight@state.nm.us.

Informacion adicional y contacto de NMED: para obtener mas informacion sobre DP-1840 y la audiencia publica, o para ser incluido/a en la lista de correo especifica de la instalacion, comuniquese con Brad Reid, NMED Ground Water Quality Bureau (GWQB), 1190 St. Francis Drive, P.O. Box 5469, Santa Fe, New Mexico 87502-5469, llamando al (505) 827-2963, o por correo electronico en brad.reid@state.nm.us. El registro administrativo y el permiso propuesto se pueden ver en

la GWQB y en el sitio web de NMED en https://www.env.nm.gov/gwqb/mecs/. Si alguna persona necesita ayuda, un interprete o ayuda auxiliar para participar en este proceso, comuniquese con John Baca llamando al (505) 827-2430, o envie una solicitud por escrito al Sr. Baca, con una antelacion minima de diez (10) dias de calendario antes de la audiencia, en NMED, P.O. Box 5469, Santa Fe, New Mexico 87502-5469, o john.baca2@state.nm.us.
El Departamento de Medio Ambiente de Nuevo Mexico no discrimina por motivos de raza, color, origen nacional, discapacidad, edad o sexo en la administracion de sus programas o actividades, segun lo exigido por las leyes y los reglamentos correspondientes. NMED es responsable de la coordinacion de los esfuerzos de cumplimiento y la recepcion de consultas relativas a los requisitos de no discriminacion implementados por 40 C.F.R. Partes 5 y 7, incluido el Titulo VI de la Ley de Derechos Civiles de 1964, segun enmendada; Seccion 504 de la Ley de Rehabilitacion de 1973; la Ley de Discriminacion por Edad de 1975, Titulo IX de las Enmiendas de Educacion de 1972 y la Seccion 13 de las Enmiendas a la Ley Federal de Control de Contaminacion del Agua de 1972. Si usted tiene preguntas sobre este aviso o sobre cualquier programa, politica o procedimiento de no discriminacion de NMED, usted puede comunicarse con la Coordinadora de No Discriminacion: Kristine Pintado, Non-Discrimination Coordinator, New Mexico Environment Department, 1190 St. Francis Dr., Suite N4050, P.O. Box 5469, Santa Fe, NM 87502, (505) 827-2855, nd.coordinator@state.nm.us. Si usted piensa que ha sido discriminado/a con respecto a un programa o actividad de NMED, usted puede comunicarse con la Coordinadora de No Discriminacion antes indicada. **Transcripciones de la audiencia.** De conformidad con 20.6.2.3110.J NMAC, NMED hara una grabacion de audio de la audiencia. Si alguna persona solicita una transcripcion escrita o una copia certificada del audio grabado, dicha persona debera pagar el costo de la transcripcion o la copia del audio.

Pub: The Herald
Req: NMED/GWQB
August 15, 2018
This legal is posted at www.publicnoticeads.com
***

END OF RUN

Invoice # **INVOICE**

HERALD PUBLISHING CO., INC.
PHONE (575) 894.2143
FAX (575) 894.7824
email: herald@torcherald.com
PO BOX 752 • 1204 NORTH DATE
TRUTH or CONSEQUENCES. NM 87901

11517

11 Aug 2018

NMED/GWQB
PO Box 5469
Sante Fe, NM 87502-5469

Thank You • The Herald Appreciates Your Business

DATE	DESCRIPTION	AMOUNT
	PO# 66700-0000031947	
	RE: NM Copper Corporation	
	Legal Notices	
	publish: Aug 15, 2018	
	English 227	26
	Spanish 266	90
	Total $494	16
	*state Legal RATE	

TERMS: Due the 10th of the following month. Any account not paid within 120 days will be assessed 1.5% (18% per year) on the balance of the account. Attorney fees will be added if placed for collections. We accept major credit cards. There will be a $2.00 processing fee on all credit/debit payments, with the exception of AMEX, which is $3.00.

Mike O. Tooley, Publisher

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

Fernando Martinez, Director
Mining and Minerals Division

August 8, 2018

RE: Notice of CANCELLED and RESCHEDULED Public Hearing for Copper Flat Mine, Sierra County, New Mexico

The New Mexico Energy, Minerals and Natural Resources Department, Mining and Minerals Division ("MMD") hereby gives notice that the public hearing for the Copper Flat Mine originally scheduled for **August 21 and 22, 2018 is *CANCELLED.***

The public hearing is ***RESCHEDULED*** for **October 23 and 24, 2018, from 9:00 am to 7:00 pm** with two additional days scheduled for **October 25 and 26, 2018, from 9:00 am to 7:00 pm**, if needed, as determined by the Hearing Officer presiding over the public hearing.

The location of the public hearing is the **Albert J. Lyons Event Center, 2953 S. Broadway Street, Truth or Consequences, New Mexico, 87901.**

Please see the enclosed Public Notice for additional details.

Enclosure: Public Notice for Public Hearing on Copper Flat Mine

Public Notice:
Copper Flat Mine Public Hearing

CANCELLED & RESCHEDULED

The New Mexico Energy, Minerals and Natural Resources Department, Mining and Minerals Division hereby gives notice that the public hearing for the Copper Flat Mine originally scheduled for **August 21 and 22, 2018 is *CANCELLED.***

The public hearing is ***RESCHEDULED*** for **October 23 and 24, 2018, from 9:00 am to 7:00 pm** with two additional days scheduled for **October 25 and 26, 2018, from 9:00 am to 7:00 pm**, if needed, as determined by the Hearing Officer presiding over the public hearing.

The location of the public hearing is the **Albert J. Lyons Event Center, 2953 S. Broadway Street, Truth or Consequences, New Mexico, 87901.**

The Permit Application Package and Draft Environmental Evaluation for the Copper Flat Mine are available for review at the MMD Office in Santa Fe, NM, and may also be viewed on the MMD website at http://www.emnrd.state.nm.us/mmd/MARP/PermitSI027RN.html

Comments regarding the Copper Flat Mine application for a New Mining Operation permit may be submitted to the Mining and Minerals Director at the following address:

Director, Mining and Minerals Division
Energy, Minerals and Natural Resources Department
1220 S. St. Francis Drive
Santa Fe, NM 87505

Or by email at: EMNRD-MMD.Director@state.nm.us

Any interested party may submit written comments regarding the application to the MMD Director. **The public comment period will be closed immediately after the public hearing and no further comments from the public will be considered after October 26, 2018.**

The public hearing is on the Permit Application Package and Draft Environmental Evaluation in consideration of issuing a new mine permit for the Copper Flat Mine, Sierra County, New Mexico. The applicant for the permit is New Mexico Copper Corporation ("NMCC"), a wholly owned subsidiary of THEMAC Resources Group Limited. The Copper Flat Mine is located in Sierra County, approximately 30 miles southwest of Truth or Consequences and 5 miles northeast of Hillsboro.

The purpose of the public hearing is to give the public an opportunity to learn about and comment on the requested New Mining Operation permit for the Copper Flat Mine. A hearing officer will conduct the hearing on behalf of MMD and, pursuant to NM Mining Act Rule 19.10.9.905 NMAC, will have authority to take all measures necessary for the maintenance of order and decorum, and for the efficient, fair and impartial presentation of the requested New Mining Operation permit for the Copper Flat Mine and the receiving of public comments. The public hearing is not adjudicatory and no final decisions regarding the application will be made

Reid, Brad, NMENV

From: Lewellin, Jeffrey, NMENV
Sent: Thursday, August 16, 2018 8:15 AM
To: Maurer, Anne, NMENV; Reid, Brad, NMENV; Vollbrecht, Kurt, NMENV
Subject: Copper Flat Financial Assurance Review
Attachments: 2018-08-15 MMD_NMED Request for Comments_Copper Flat FA.pdf

Anne, Brad and Kurt – Yesterday I received the attached MMD request for comments letter. I created a financial assurance folder and downloaded the fifteen files associated with the FA proposal. We have 60 days to respond with our review which has it back to me on 10/8/18 and to MMD by 10/12/18. I'll put one of our standard memos together for Kurt's review. The link to the folder on server share is ↓. Thanks, Jeff

\\NMENV\ServerShares$\WPD\GWQB\MECS\Copper-Flat-Mine\DP-1840

Jeff Lewellin, Mining Act Team Leader
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-1049

State of New Mexico
Energy, Minerals and Natural Resources Department

August 15, 2018

Mr. Jeff Lewellin
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, NM 87502-5469

Re: Request for Agency Comments on Financial Assurance Proposal, Copper Flat Mine, Sierra County, New Mexico, Permit Tracking No. SI027RN:

Dear Mr. Lewellin,

On August 10, 2018, the Mining and Minerals Division ("MMD") of the New Mexico Energy, Minerals, and Natural Resources Department received a Financial Assurance Proposal from New Mexico Copper Corporation ("NMCC") for the Copper Flat Mine, Sierra County, New Mexico, Permit Tracking No. SI027RN. The Financial Assurance Proposal utilizes the Standard Reclamation Cost Estimator ("SRCE"), Version 2.0.

Pursuant to §19.10.6.605.C of the New Mexico Administrative Code, MMD is requesting comments from your agency on the Copper Flat Financial Assurance Proposal, which can be downloaded from MMD's website at http://www.emnrd.state.nm.us/mmd/MARP/PermitSI027RN.html. Please provide any comments your agency may have within 60 days from the date of receipt of this letter.

If you have any questions, please contact me at (505) 476-3434 or by email at david.ennis@state.nm.us.

Sincerely,

David J. (DJ) Ennis, P.G., Permit Lead
Mining Act Reclamation Program (MARP)

cc: Mine File (SI027RN)

From:	Michael Jensen
To:	Vollbrecht, Kurt, NMENV; Reid, Brad, NMENV
Cc:	Knight, Andrew, NMENV; cdesaillan@nmelc.org
Subject:	RE: Copper Flat Mine DP public comment period
Date:	Tuesday, September 04, 2018 11:29:06 AM

Kurt:

We assumed the HO would announce something during the hearing, but I was originally wondering if the Bureau would consider setting a firm date as MMD had. We're happy to wait for the HO and get the word out once a decision has been made.

Thanks again.

Michael

--- ---
Michael Jensen
Communications and Public Education Officer
New Mexico Environmental Law Center
www.nmelc.org
505.629.4420 (direct office)
505.362.1063 (cell)

From: Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>
Sent: Tuesday, September 04, 2018 11:25 AM
To: mjensen@nmelc.org; Reid, Brad, NMENV <brad.reid@state.nm.us>
Cc: Knight, Andrew, NMENV <Andrew.Knight@state.nm.us>; cdesaillan@nmelc.org
Subject: RE: Copper Flat Mine DP public comment period

No problem Michael. I'll talk to Andrew but it is my understanding this is the H.O.'s decision. Charlie may know better than I as well…

Kurt Vollbrecht, Program Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-0195

From: Michael Jensen <mjensen@nmelc.org>
Sent: Tuesday, September 4, 2018 11:21 AM
To: Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>; Reid, Brad, NMENV <brad.reid@state.nm.us>
Cc: Knight, Andrew, NMENV <Andrew.Knight@state.nm.us>; cdesaillan@nmelc.org
Subject: RE: Copper Flat Mine DP public comment period

Kurt:

That's fine. The previous response seemed to preclude the HO's input, hence my follow-up in the below email and a second one asking if the Bureau would consider a fixed date at the end of the extended hearing timeline.

Thanks

Michael

--- ---
Michael Jensen
Communications and Public Education Officer
New Mexico Environmental Law Center
www.nmelc.org
505.629.4420 (direct office)
505.362.1063 (cell)

From: Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>
Sent: Tuesday, September 04, 2018 11:14 AM
To: mjensen@nmelc.org; Reid, Brad, NMENV <brad.reid@state.nm.us>
Cc: Knight, Andrew, NMENV <Andrew.Knight@state.nm.us>
Subject: RE: Copper Flat Mine DP public comment period

Hi Michael,

I think this would be a question for the Hearing Officer to respond to. We can't speak on her behalf.

Thanks.

Kurt Vollbrecht, Program Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-0195

From: Michael Jensen <mjensen@nmelc.org>
Sent: Tuesday, September 4, 2018 11:01 AM
To: Reid, Brad, NMENV <brad.reid@state.nm.us>
Cc: Knight, Andrew, NMENV <Andrew.Knight@state.nm.us>; Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>
Subject: RE: Copper Flat Mine DP public comment period

Brad:

Thanks. Sometimes the Hearing Officer extends them beyond the hearing (generally announcing that during the hearing) so I was just curious if you thought that might be the case. But this sounds definitive.

Michael

--- ---
Michael Jensen
Communications and Public Education Officer
New Mexico Environmental Law Center

www.nmelc.org
505.629.4420 (direct office)
505.362.1063 (cell)

From: Reid, Brad, NMENV <brad.reid@state.nm.us>
Sent: Tuesday, September 04, 2018 10:54 AM
To: mjensen@nmelc.org
Cc: Knight, Andrew, NMENV <Andrew.Knight@state.nm.us>; Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>
Subject: RE: Copper Flat Mine DP public comment period

Michael:

I asked our attorney your question and this is his response:

All comments, written or otherwise, must be submitted by the end of the hearing, at which time the record will be closed (except for post-hearing submittals, such as proposed findings of fact, closing arguments, etc.).

Thanks, Brad

Brad Reid, Geologist
Mining Environmental Compliance Section / PO Box 5469 / Santa Fe, NM / 87502
(505) 827-2963 / brad.reid@state.nm.us

From: Michael Jensen <mjensen@nmelc.org>
Sent: Tuesday, September 04, 2018 10:01 AM
To: Reid, Brad, NMENV <brad.reid@state.nm.us>
Subject: Copper Flat Mine DP public comment period

Mr Reid – I just left a phone message so if you see this first please disregard that.

Will there be a public comment period extending beyond the Copper Flat Mine DP hearing, or will all written comments have to get in by the last day of the hearing (whenever that is)?

Thanks

Michael

--- ---
Michael Jensen
Communications and Public Education Officer
New Mexico Environmental Law Center
www.nmelc.org
505.629.4420 (direct office)
505.362.1063 (cell)

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

BUTCH TONGATE
Cabinet Secretary

J.C. BORREGO
Deputy Secretary

GROUND WATER QUALITY BUREAU (GWQB)
DISCHARGE PERMIT
NEW COPPER MINE FACILITY
Issued under 20.6.2 and 20.6.7 NMAC

Return Receipt Requested
Certified Mail Receipt Number: 7005 1820 0001 5766 0796

Mine Facility Name:	Copper Flat Mine
GWQB Discharge Permit Number:	DP-1840
GWQB TEMPO AI Number:	1535
Permittee Name/Responsible Party:	New Mexico Copper Corporation
Mailing Address:	4253 Montgomery Blvd. NE, Suite 130 Albuquerque, NM 87109
Mine Facility Contact:	Jeff Smith; (505) 382-5770
Mine Facility Location:	85 Copper Rock Road Hillsboro, NM 88042
County:	Sierra County
Permitting Action:	New
Effective Date:	XXXX XX, 2018
Expiration Date:	XXXX XX, 2018
NMED Permit Contact:	Brad Reid; (505) 827-2963
E-mail Address:	brad.reid@state.nm.us

Bruce Yurdin
Division Director
Water Protection Division

Date

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TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

Part A GENERAL INFORMATION

A100 Introduction

A. The New Mexico Environment Department (NMED) issues this Ground Water Discharge Permit, DP-1840 (Discharge Permit) to the New Mexico Copper Corporation (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 and 20.6.7 NMAC. NMED is issuing this Discharge Permit to control the discharge of water contaminants from the Copper Flat Mine facility for the protection of ground water and those segments of surface water gaining from ground water inflow, for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health.

B. Pursuant to this Discharge Permit, the permittee is authorized to discharge a maximum of 25,264,000 gallons per day (gpd) of tailings slurry which includes mine tailings, process water, impacted stormwater, and domestic wastewater to a lined tailing impoundment. In addition, this Discharge Permit regulates discharges from other mine units including waste rock stockpiles, ore stockpiles, mineral processing units, process water impoundments, an open pit, sumps, tanks, pipelines, and other areas within the permit area. The discharge may move directly or indirectly into ground water of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter (mg/L) or less of total dissolved solids (TDS) within the meaning of Section 20.6.2.3104 and Subsection A of 20.6.2.3101 NMAC. The discharge may contain water contaminants or toxic pollutants elevated above the standards of Section 20.6.2.3103 NMAC.

C. The permittee is authorized to discharge water contaminants pursuant to this Discharge Permit which contains conditions authorized or specified by Part 20.6.7 NMAC (Copper Mine Rule) on condition that the permittee complies with the Copper Mine Rule and this Discharge Permit, which are enforceable by NMED.

A101 Applicable Regulations

A. The permittee is discharging from a facility that meets the definition of a "new copper mine facility" as defined in Paragraph (39) of Section 20.6.7.7.B NMAC. Sections 20.6.2.3000 through 20.6.2.3114 NMAC and Part 20.6.7 NMAC apply to discharges specific to copper mine facilities and their operations.

B. The discharges from the mine units regulated pursuant to this Discharge Permit are not subject to any of the exemptions of Section 20.6.2.3105 NMAC except as provided for in Subsection F of 20.6.2.3105 NMAC.

C. Ground water quality as observed in monitoring wells required by C111.G and C114.C of this Discharge Permit is subject to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC except as excluded pursuant to Subsection D of 20.6.7.24 NMAC.

A102 Permit Duration

A. Pursuant to the WQA 74-6-5(I) and Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit is seven years from the effective date (effective DATE) or five years from the date the discharge commences. In no event shall the term of DP-1840 exceed seven years from the effective date.

B. If the permittee submits an application for renewal in accordance with Subsection F of 20.6.2.3106 NMAC, then the existing discharge permit shall not expire until the application for renewal has been approved or disapproved.

A103 Terms of Permit Issuance

A. **Permit Fees -** The permittee shall remit an annual permit fee payment equal to the applicable permit fee, based on mine size as listed in Subsection A of 20.6.7.9 NMAC. The permit fee is due on August 1 of each year until termination of all discharge permits related to the Copper Flat Mine facility. [20.6.7.9.A NMAC]

B. **Transfer of Discharge Permit -** Prior to the transfer of any ownership, control, or possession of this permitted facility or any portion thereof, the permittee 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. The permittee 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. [20.6.7.38 NMAC and 20.6.2.3111 NMAC]

C. **Permit Renewal -** To renew this Discharge Permit, the permittee shall submit an application and associated fees for renewal at least 270 days prior to the expiration date of this Discharge Permit (by DATE) in accordance with Sections 20.6.7.9, 20.6.7.10, and 20.6.7.11 NMAC.

D. **Additional Conditions -** In addition to the requirements of 20.6.7 NMAC, the permittee shall comply with the following additional conditions as authorized by Subsection I of 20.6.7.10 NMAC pursuant to WQA 74-6-5: Condition C100.A, Condition C100.B, Condition C101.B, Condition C101.C, Condition C103.F, Condition C108.A, Condition C111.B, Condition C111.E, Condition C112.E, Condition C113.G, Condition C113.H, Condition C114.B, Condition C114.C, Condition C114.D, Condition D105.A, Condition D105.B, Condition D106.A, Condition D106.B, Condition D107.D.

Part B FACILITY SPECIFIC INFORMATION

B100 History and Facility Description

A. The Copper Flat Mine is an open pit copper mine facility owned by the New Mexico Copper Corporation situated within a mine permit area boundary of approximately 2,190 acres. The Copper Flat Mine will consist of an open pit, waste rock stockpiles, stormwater impoundments and collection systems, a Process Facility Area consisting of a concentrator and associated mineral processing units, a lined tailing impoundment, and associated infrastructure. The mine project will disturb approximately 1,290 acres of which approximately 910 acres were previously disturbed from historic mining operations at the site. The mine is regulated pursuant to this Discharge Permit and an abatement plan.

B. The historic Copper Flat Mine operation included several waste rock stockpiles, an open pit, a tailings storage facility, mineral processing facilities, impoundments, and associated infrastructure. The mine was operated for commercial production in 1982 for approximately three and a half months. Approximately three million tons of overburden (i.e., open pit pre-stripping) and 1.2 million tons of ore were mined resulting in an open pit encompassing eighty acres of disturbance including a five-acre water body. The bottom level of the pit currently sits at 5,400 feet above mean sea level (amsl). No mining has occurred at the site since 1982.

C. New Mexico Copper Corporation will construct and operate the Copper Flat Mine and concentrator using conventional copper and molybdenum sulfide flotation circuits and a gravity gold recovery circuit with a maximum throughput of 38,000 dry tons per day of ore, generating up to 25,264,000 gpd of tailings slurry. Over an estimated eleven-year operational period, the permittee intends to mine the copper-rich ore body and process approximately 125 million tons of ore at the Process Facility Area, and place 33 million tons of waste rock on three delineated waste rock stockpiles peripheral to the open pit.

D. Ore mined from the Copper Flat Open Pit will be crushed, milled, and concentrated using conventional milling and concentration processes. The copper and molybdenum concentrates produced at the Process Facility Area will be packaged for off-site transport and additional processing. The tailings, a by-product from the flotation process, will be conveyed via a tailing pipeline to a cyclone classification plant (Cyclone Plant) and then discharged at the Tailings Storage Facility (TSF).

E. A synthetically lined TSF will be constructed in the same location as the historic facility. Tailings slurry (i.e., process water and flotation tailings) containing, on average, approximately 29% solids by weight will be gravity conveyed from the Concentrator through a pipeline into the Cyclone Plant to separate the tailings into coarse and fine fractions. The coarse fraction tailings sand cyclone underflow will be deposited to construct the tailing dam and the fine fraction tailings slime cyclone overflow will be discharged to the interior of the TSF. The TSF will extend approximately 1,000 feet to the east of the former starter dam (the tailings expansion

area). A centerline construction method using the cyclone-processed tailings sand for tailings dam construction will be utilized. A starter dam will be constructed using borrow material to provide initial storage capacity and to provide a location for initial discharge of tailings.

F. Water collected inside the projected Open Pit Surface Drainage Area (OPSDA; as defined in Section 20.6.7.7 NMAC and displayed on Figure 2 attached to this Discharge Permit) at the open pit sump will be utilized for dust suppression during operations on haul roads, working areas, and waste rock stockpiles within the projected OPSDA. Water sources that do not exceed ground water quality standards set forth in Section 20.6.2.3103 NMAC will be used for dust suppression outside the projected OPSDA.

G. The pit area will be dewatered to facilitate mining below the water table. The existing diversion structure will be maintained during operations to convey non-impacted stormwater flows generated in Grayback Arroyo and its tributaries around the perimeter of the open pit. Pit water will primarily be used for dust suppression or re-used in the process water circuit.

H. After the cessation of mining, the pit will be rapidly re-filled with fresh water to the modeled static water table, forming a pit water body. Waste rock stockpiles, the TSF, and other impacted areas will be reclaimed and revegetated in accordance with the approved Closure/Closeout Plan, including placement of an engineered soil cover system where required.

B101 Permitting History

A. The Discharge Plan for DP-1840 includes application materials submitted by the permittee to NMED dated December 11, 2015, Revision 1 of the Discharge Permit Application dated August 2017 ("Revised Application"), and materials contained in the DP-1840 administrative record prior to issuance of this Discharge Permit.

B102 Facility Location, Ground Water and Process Water Characteristics

A. Copper Flat Mine is located at 85 Copper Rock Road approximately 5 miles NE of Hillsboro, in Sections 30 and 31, T15S, R6W, Sections 25, 26, 35, and 36, T15S, R7W, and Section 6, T16S, R6W, Sierra County.

B. Ground water beneath the mine units regulated pursuant to DP-1840 is at a depth ranging from approximately 7 to 156 feet with a pre-discharge TDS concentration ranging from approximately 317 to 868 milligrams per liter.

C. The Copper Flat Open Pit walls, the waste rock stockpiles, the TSF and other disturbed areas at the mine facility may contain sulfide minerals which, when oxidized, generate acidic solutions. These acidic solutions react with in situ minerals to produce acid rock drainage (ARD) that typically contains TDS, sulfate, and certain metals in concentrations that may exceed the water quality standards of Section 20.6.2.3103 NMAC.

D. Process water and impacted stormwater discharges regulated pursuant to DP-1840, including ARD, are typically outside the acceptable range for pH and contain TDS, sulfate, and certain metals in concentrations that exceed the water quality standards of Section 20.6.2.3103 NMAC.

B103 Authorized Mine Units

The permittee is authorized to manage the discharge of water contaminants through operation of the following mine units pursuant to this Discharge Permit. This Discharge Permit contains requirements associated with the following mine units as identified in the Revised Application and the administrative record as of the effective date of this Discharge Permit. Mine units listed below meet the definition of "new" mine units pursuant to the Copper Mine Rule, unless otherwise noted, and will meet applicable Copper Mine Rule design and construction requirements.

A. **Open Pit**

1. The permitted open pit operational area will encompass approximately 161 acres at full build out and will reach an approximate base elevation of 4,650 amsl. The diameter of the open pit will be approximately 2,800 feet, and the open pit depth will reach approximately 850 to 900 feet below the original pre-mining surface. The existing diversion of Grayback Arroyo will route stormwater around the open pit during operations and at closure. Approximately thirty-nine acre-feet per year (24 gallons per minute, gpm) of groundwater seepage and sixty-eight acre-feet per year (42 gpm) of stormwater entering the pit will be returned to the process water circuit or used for dust suppression using one or more pit dewatering sumps during operations.

B. **Waste Rock Stockpiles**

1. Waste Rock Stockpile 1 (WRSP-1) - WRSP-1 will be located inside the projected OPSDA northeast of the open pit and will have an estimated footprint of approximately 40 acres upon build out. Approximately 3.16 million tons of material will be stockpiled within the permitted footprint during the operational phase of the mine. Berms and drain ditches will be constructed around the waste rock stockpile to prevent run-on and to control run-off.

2. Waste Rock Stockpile 2 (WRSP-2) - WRSP-2 will be located outside the projected OPSDA east of the open pit and Animas Peak and will have an estimated footprint of approximately 49 acres upon build out. Approximately 8.64 million tons of material will be stockpiled within the permitted footprint during the operational phase of the mine. Berms and drain ditches will be constructed around the waste rock stockpile to prevent run-on and to control run-off.

3. Waste Rock Stockpile 3 (WRSP-3) - WRSP-3 will be located outside the projected OPSDA east of the open pit and Animas Peak and will have an estimated footprint of approximately 122 acres upon build out. Approximately 32.89 million tons of material will be stockpiled

within the permitted footprint during the operational phase of the mine. Berms and drain ditches will be constructed around the waste rock stockpile to prevent run-on and to control run-off. An open channel stormwater conveyance structure will be cut into the underlying bedrock at the toe of the stockpile to collect seepage and impacted stormwater generated from WRSP-3.

4. Existing Waste Rock Stockpile 1 (EWRSP-1) - EWRSP-1, located inside the projected OPSDA, is an historic waste rock stockpile located at the western edge of the mine facility boundary and contains approximately 486,000 tons of waste rock. The current footprint of the stockpile is approximately 16 acres. This stockpile will be reclaimed during the mine start-up phase.

5. Existing Waste Rock Stockpile 2A (EWRSP-2A) - EWRSP-2A is an historic waste rock stockpile located at the north side of the open pit. A portion of EWRSP-2A is located outside the projected OPSDA. This portion will be relocated onto the portion of EWRSP-2A that is inside the projected OPSDA during the mine start-up phase and prior to construction of WRSP-1. EWSRP-2A will be sequentially covered during the operational phase of the mine from construction of WRSP-1 (i.e., EWRSP-2A will become part of WRSP-1).

6. Existing Waste Rock Stockpile 2B - EWRSP-2B, located inside the projected OPSDA, is an historic waste rock stockpile located at the north side of the open pit immediately west of the toe of EWRSP-2A. EWRSP-2B will be reclaimed during the mine start-up phase. The current combined footprint of EWRSP-2A and EWRSP-2B covers a footprint of 21 acres and contains approximately 760,050 tons of waste rock.

7. Existing Waste Rock Stockpile 3 (EWRSP-3) - EWRSP-3, located outside the projected OPSDA, is an historic waste rock stockpile located north of the Concentrator in the ore processing area. It contains approximately 333,300 tons of waste rock and ore. The current footprint of the stockpile is approximately 20 acres. Ore from this stockpile will be processed during the start-up phase of the concentrator. In addition, EWRSP-3 will be used during mine operations to temporarily store ore during upset conditions (i.e., when the Primary Crusher is not working).

8. Existing Waste Rock Stockpile 4 (EWRSP-4) - EWRSP-4, located inside the projected OPSDA, is an historic waste rock stockpile located southeast of the pit containing approximately 1,000,050 tons of waste rock. The current footprint of the stockpile is approximately 23 acres. The southern slopes of the stockpile facing Grayback Arroyo will be reclaimed during the mine start-up phase, and the top surface will be filled and graded to a 1% slope and used for an equipment laydown yard during operations. Stormwater generated from the top surface will discharge to the open pit.

C. **Conditionally Exempt Facilities**

1. Growth Media Stockpiles - Three growth media stockpiles will be constructed at the mine facility to store reclamation cover material. Growth Media Stockpile 1 will be constructed southwest of the TSF and will have an estimated footprint of approximately 30 acres upon build out. Growth Media Stockpile 2 will be constructed northeast of the TSF and will have an estimated footprint of approximately 32 acres upon build out. Growth Media Stockpile 3 will be constructed southeast of WRSP-3 and will have an estimated footprint of approximately 14 acres upon build out. These stockpiles are authorized for storage of reclamation cover material only, and the conditionally exempt status is premised on the permittee placing material that does not generate water contaminants on the Growth Media Stockpile.

2. Mill Site Claims and Electrical Substation - Nine total existing and/or proposed mill site claims and one electrical substation located off-site will contribute to the project. Each mill site claim is five acres in size and the electrical substation will be located on a thirty-acre parcel of land. The mill site claims will be utilized for other water-related infrastructure uses such as staging and storage areas for booster tanks, pumps and electrical equipment, maintenance, and monitoring. The mill site claims and electrical substation are authorized for use on condition that the permittee adheres to the approved material characterization and handling plan to ensure the conditionally exempt status as areas that do not generate water contaminants.

D. **Copper Crushing, Milling, Concentrator, and Tailings Storage Facility**

1. Process Facility Area - The Process Facility Area, located outside the projected OPSDA southeast of the open pit, is where crushing and grinding, milling, flotation, concentrating, drying and packaging of ore will occur. In addition, administration, parking and other ancillary support facilities (e.g., Assay Laboratory) will be located here. Impacted stormwater generated in the Process Facility Area will be directed to open channel conveyances that convey to Impacted Stormwater Impoundment A.

    a. Primary Crusher - Ore from the open pit will be fed to the Primary Crusher for the first stage of crushing. Run-of-the-mine ore rock will be crushed to a size of eight-inch diameter and less. The gyratory crusher will be located below ground level on reinforced concrete with concrete sumps. The sumps will pump water for re-use in the ore processing circuit.

    b. Coarse Ore Stockpile - The Coarse Ore Stockpile will be located between the Primary Crusher and the Concentrator in the Process Facility area. Crushed ore rock from the Primary Crusher will be temporarily stored at the Coarse Ore Stockpile until it is fed into the Reclaim Tunnel beneath the stockpile and onto a conveyor system which will transport ore to the Semi-Autogenous Grinding (SAG) Mill and grinding circuit. The Coarse Ore Stockpile will have a capacity of 75,000 tons and will have a footprint of approximately 5 acres.

c. Concentrator - The Concentrator is designed to process up to38,000 tons per day. It will consist of several copper and molybdenum rougher/scavenger flotation cells, copper and molybdenum flotation and scavenger cells, concentrate tanks, thickeners, filters, a copper concentrate load-out area, a molybdenum packaging area, and associated infrastructure. The Concentrator is designed and will be constructed to prevent discharges from leaving the facility using concrete floors and numerous sumps, pumps, and concrete berms within the building.

d. Mill - The Mill is located inside the Concentrator building and will consist of one SAG Mill, one ball mill, a pebble crusher, and associated conveyance systems and separators.

2. Tailings Storage Facility (TSF) - The lined TSF will be located outside the projected OPSDA and built progressively out in a five-phase process. It is designed to accommodate the volume of tailings generated during the life of the mine. The liner will consist of an 80-mil high-density polyethylene (HPDE) liner (or equivalent material) placed on a twelve-inch thick liner bedding fill sub base. In Phase 1, the liner bedding fill will consist of a minimum of 12 inches of historic tailings recovered from the north cell of the old starter dam. After Phase 1, liner bedding fill will consist of a twelve-inch layer of crushed and screened native material or selected local soil. TSF drainage will be collected using an underdrain collection system that incorporates two underdrains that will convey solutions to the TSF Underdrain Collection Pond. Drainage from the TSF impoundment interior will be collected in a continuous underdrain system (impoundment underdrain) constructed over the geomembrane liner. A separate blanket drain system will underlie the tailings dam (dam underdrain). The impoundment underdrain system will be equipped with a shutoff valve at its inlet during the initial years of operation to ensure two feet of freeboard is maintained in the Underdrain Collection Pond. When the valve is closed, the TSF supernatant pool will be used for storage until the TSF underdrain collection pond is pumped down. The TSF pool, located in the interior of the TSF, will be equipped with four floating-barge pumps with a maximum design capacity of 12,978 gpm. The pumps will convey TSF supernatant process water to the Process Water Reservoir through the 36-inch diameter HDPE water reclaim process water pipeline for re-use as process water. Tailing slurry, which is gravity conveyed from the Concentrator, will pass through the Cyclone Plant prior to discharge to the TSF. The Cyclone Plant will separate the tailing slurry into a coarse and fine fraction; the coarse fraction will be used to construct the tailing dam and the fine fraction will be conveyed into the TSF pool.

E. **Domestic Wastewater Treatment Facility**

1. A package treatment plant sized to treat up to 10,000 gallons of day of domestic wastewater will be constructed on a pre-existing slab located near the main gate and outside the projected OPSDA. The plant will be constructed and operated to treat wastewater to a secondary effluent quality. Treated effluent will be pumped via pipeline to the TSF facility

for re-use as process water.

F. **Impoundments**

1. Process Water Reservoir (PWR) - The Process Water Reservoir will be located east of the Concentrator in the Process Facility Area and outside the projected OPSDA. It will have a footprint of approximately 2 acres and a storage capacity of 5,433,472 gallons while maintaining two feet of freeboard. It is sized to retain twelve hours of inflow at 7,200 gpm and a 100-year return interval storm event while maintaining two feet of freeboard. The pond will be double-synthetically lined minimum 60-mil HDPE (or equivalent material) liners equipped with a leak detection/collection system. It is designed to meet the requirements of Paragraphs (1), (2), (3), (6), and (7) of 20.6.7.17.D NMAC. The PWR will receive process water from the Underdrain Collection Pond at the TSF, impacted stormwater pumped from the three impacted stormwater impoundments, and freshwater from the off-site well field for use as process water in the Concentrator. The PWR will pump process water to the Process Water Tank for use in the Process Facility Area. Pumps will be sized to deliver 24,300,000 gpd (16,875 gpm) of process water to the Concentrator. In the event of upset conditions, the PWR overflow weir conveys solutions directly into the lined tailings trench/pipeline corridor which discharges to the TSF.

2. TSF Underdrain Collection Pond (UCP) - The UCP will be located outside the projected OPSDA at the southeastern toe of the TSF. It will have a footprint of approximately 8 acres and storage capacity of 12,240,000 gallons while maintaining two feet of freeboard. It is sized to retain twenty-four hours of underdrain flow at a maximum flow rate, and runoff from the downstream face of the TSF during a 100-year return interval storm event. The pond will be double-synthetically lined (60-mil each or equivalent) using HDPE or equivalent material and equipped with a leak detection/collection system. It is designed to meet the requirements of Paragraphs (1), (2), (3), (6), and (7) of 20.6.7.17.D NMAC. The pond will receive approximately 448 gpm of tailing underflow, tailings dam face seepage, and impacted stormwater under standard operating conditions. Collected solutions will be returned to the process water re-use circuit via the 4,000 gpm pond reclaim pump system (one operating pump and one spare submersible turbine pump mounted in a concrete sump) and the underdrain collection process water pipeline. The underdrain collection process water pipeline will be placed along the upstream side (i.e., inside the TSF toe berm) of the toe berm and above the geomembrane liner during all buildout phases of the TSF. Perimeter collection trenches situated on the bermed upstream side of the TSF liner will capture and contain impacted stormwater from the face of the TSF and convey solutions to the Underdrain Collection Pond.

3. Surge Pond - The Surge Pond will be located outside the projected OPSDA at the northwest margin (i.e., upstream side) of the TSF and is associated with the Cyclone Plant. It will have a footprint of approximately 6.4 acres and storage capacity of 1,610,000 gallons while maintaining two feet of freeboard. The minimum 60-mil HDPE (or equivalent material)

lined impoundment is designed to meet the requirements of Paragraphs (1), (2), (4), (6), and (7) of 20.6.7.17.D NMAC. The purpose of the Surge Pond is to contain discharges (tailings, process, and reclaim water) from various processing locations under upset conditions, due to a pipe failure, or shutdown of the Cyclone Plant. Upset flows from the Cyclone Plant will discharge by gravity to the Surge Pond within a secondary containment ditch lined with a minimum 60-mil HDPE geomembrane liner placed over 6 inches of liner bedding fill. Dedicated pumps will convey solutions from the Surge Pond to the TSF. The surge pond will be empty under normal operating conditions.

4. Impacted Stormwater Impoundments - Three stormwater impoundments will be utilized to capture precipitation and stormwater runoff from areas impacted by mining activities including mining, hauling, waste rock stockpiling, mineral processing, and shipping and receiving of goods and products. The minimum 60-mil HDPE (or equivalent material) lined impoundments are designed to meet the requirements of Paragraphs (1), (2), (4), (6), and (7) of 20.6.7.17.D NMAC. Each stormwater impoundment is designed to receive the volume of stormwater generated from a 100-year return interval storm event while maintaining two feet of freeboard. The stormwater impoundments will typically be empty and will be pumped as low as practicable within 30 days of storm events pursuant to Paragraph (4) of 20.6.7.17.D NMAC. Collected solutions from Impacted Stormwater Impoundment B (SW-B) and Impacted Stormwater Impoundment C (SW-C) will be pumped to Impacted Stormwater Impoundment A (SW-A) via the SW-C and SW-A pipelines, and solutions from SW-A will be pumped to the PWR via the SW-A pipeline using temporary pumps. Sheet flow generated during storm events will be conveyed to the stormwater impoundments via open channel conveyances capable of handling a 100-year return interval storm event while maintaining six inches of freeboard.

    a. Impacted Stormwater Impoundment A (SW-A) - As shown in Figure 11J-3 of the Revised Application, SW-A will be located outside the projected OPSDA east of the Process Water Reservoir and at the southwest toe of WRSP-3. It will have a footprint of approximately 2 acres and storage capacity of 7,306,971 gallons while maintaining two feet of freeboard. Impacted Stormwater Impoundment A will capture and manage impacted stormwater from the approximately 91.06-acre catchment area in Watershed A which includes the Process Facility Area.

    b. Impacted Stormwater Impoundment B (SW-B) - As shown in Figure 11J-3 of the Revised Application, SW-B will be located inside the projected OPSDA at the southern toe of WRSP-1 and southwest corner of Watershed B. It will have a footprint of approximately 2 acres and storage capacity of 5,513,140 gallons while maintaining two feet of freeboard. Stormwater Impoundment B will capture and manage impacted stormwater generated from the approximately 98.52-acre catchment area in Watershed B, which includes WRSP-1. Overflow from the impoundment will discharge under a haul road via a culvert and then flow into the open pit.

Impacted Stormwater Impoundment C (SW-C) - As shown in Figure 11J-3 of the Revised Application, SW-C will be located outside the projected OPSDA at the eastern toe of WRSP-3 and eastern edge of Watershed C. SW-C will have a footprint of approximately 7 acres and storage capacity of 10,513,140 gallons while maintaining two feet of freeboard. Stormwater Impoundment C will capture and manage impacted stormwater from the approximately 198.66-acre catchment area in Watershed C which contains WRSP-2 and WRSP-3.

G. **Sumps, Tanks, Pipelines and Other Containment Systems**

1. Tanks - Forty-eight above ground tanks will be used at the mine site; most will be located outside the projected OPSDA at the Process Facility Area. Appendix C of the Revised Application describes all tanks, sumps, and designed containments for each. Tanks are designed and will be constructed in accordance with Subsections A and B of 20.6.7.23 NMAC, unless otherwise noted.

    a. Concentrator Area - Thirty tanks will be located inside the Concentrator including (number of tanks in parenthesis): Grinding Area (1), Copper Floatation Area (1), Copper Regrind Area (1), Molybdenum Floatation Area (3), Copper-Molybdenum Thickening Area (4), Copper Thickening Area (6), Wheel Wash Area (1), Lime Reagent Area (2), Diesel Reagent Area (1), General Reagent Area (7), and Sodium Hydrosulfide Reagent Area (3).

    b. Truck Shop Tank Farm - Seven tanks will be located in the Truck Shop Tank Farm area to store various oil and fluid to support the vehicle fleet.

    c. Fuel Station Area - Five tanks will be located in the Fuel Station Area to be utilized for fueling needs.

    d. Miscellaneous Locations - Three tanks will be incorporated into the domestic wastewater treatment facility, one tank will be used at the Assay Lab for chemical waste, and one 170,000-gallon tank will be used for Process Water Storage and delivery. The Process Water Storage Tank will be situated in a bermed area that will be underlain by a HDPE synthetic liner.

2. Sumps and Containment Areas - Twenty-two sumps and/or containment areas will be constructed to capture and contain process water, impacted stormwater, and other solutions in the event there is a release from the primary containment structures in the Process Facility Area.

3. Copper Flat Open Pit dewatering system - The Copper Flat Open Pit dewatering system will utilize one or more dewatering sumps and associated pipelines located in the pit to dewater the open pit. A portable booster tank(s) will be incorporated, as necessary, as the pit is deepened.

4. Pipelines - Pipelines serving the DP-1840 mine units consist of HDPE and range in size from 6 inches or less in diameter up to 36 inches in diameter. The pipelines are described in Table 11J-3, and Figures 11J-20A and 11J-20B of the Revised Application. All pipelines are designed and will be constructed in accordance with Subsections A and B of 20.6.7.23 NMAC. The Concentrator Whole Tailings Transport pipeline and UCP return pipeline will be placed within lined and bermed channels when located outside building areas.

H. **Truck and Equipment Washing Units**

1. A Truck and Equipment Washing Unit (Truck Wash) will be located outside the projected OPSDA along a haul road between the mine and the Truck Shop south of the Concentrator. It will consist of a concrete pad for vehicle and equipment washing. The pad will be sloped to drain into a 50,000-gallon concrete settling basin for separation of water, solids, oil and grease. Oil and grease will be skimmed and properly disposed of offsite. Solids removed from the bottom of the settling basin will disposed of at the TSF or stored on a concrete pad next to the wash unit for eventual disposal at the TSF. All wash water will be reused at the Truck Wash. The Truck Wash is designed in accordance with Section 20.6.7.26 NMAC.

2. A wheel wash tank and pump and associated concrete containment area will be located adjacent to the Concentrator. It will be used to remove and contain concentrate from truck wheels prior to the trucks travelling onto site roads. Solutions collected in the wheel wash sump will be returned to the Copper Thickener feed box via a dedicated pump equipped with automatic start/stop control.

I. **Dust Suppression -** Dust suppression trucks will utilize water from the open pit sump and/or stand pipes located inside the projected OPSDA for dust suppression within the projected OPSDA. Stand pipes used to deliver water to trucks for dust suppression outside the projected OPSDA will utilize water sources that meet ground water quality standards set forth in Section 20.6.2.3103 NMAC.

J. **Flow Measurement**

1. The permittee will utilize flow meters to measure regulated discharge volumes pursuant to this discharge permit and as required by the Copper Mine Rule. Flow meter locations utilized by DP-1840 are shown in Figures 11J-20A and 11J-20B of the Revised Application. In addition, Figure 3 located on Page 36 of this Discharge Permit, shows a schematic diagram of flow meter locations used for discharge volume reporting pursuant to DP-1840.

K. **Meteorological Station**

1. The mine facility will utilize one Meteorological Station, located at the east central portion of the mine facility permit boundary, to measure meteorological data in accordance with the meteorological plan submitted with the Revised Application. The location is shown on Figure 11W-1 of the Revised Application.

B104 Authorized Discharges

The permittee is authorized to operate the following mine units in accordance with all applicable system design and operational constraints as described in this Discharge Permit, and the Discharge Plan. [20.6.2.3109 NMAC]

A. The permittee is authorized to discharge a maximum of 25,264,000 gpd of tailing slurry from the Concentrator to the Cyclone Plant and then the TSF via gravity through the Concentrator Whole Tailings Transport pipeline.

B. The permittee is authorized to pump a maximum of 21,236,000 gpd of process water from the TSF Water Reclaim System, which includes combined flows from the UCP and TSF supernatant pool, to the PWR.

C. The permittee is authorized to discharge a maximum of 24,300,000 gpd of process water from the PWR to the Concentrator.

D. The permittee is authorized to place waste rock from the Copper Flat Open Pit within the permitted footprints of WRSP-1, WRSP-2, and WRSP-3 and discharge water contaminants originating from placed materials.

E. The permittee is authorized to dewater the Copper Flat Open Pit to accommodate mining of the Pit and to manage process water and impacted stormwater from the Copper Flat Open Pit.

F. The permittee is authorized to store crushed ore at the Coarse Ore Stockpile.

G. During upset conditions, the permittee is authorized to temporarily stage ore within the permitted footprint of EWRSP-3, and discharge water contaminants originating from placed materials.

H. The permittee is authorized to operate SW-A, SW-B, and SW-C to collect impacted stormwater.

I. The permittee is authorized the operate all sumps, tanks, pipelines and other containment systems described in B103.G.

J. The permittee is authorized to operate the Truck and Equipment Wash units.

K. The permittee is authorized to discharge a maximum of 10,000 gpd of treated effluent from the domestic wastewater treatment and disposal facility to the TSF.

L. The permittee is authorized to discharge an annual average of approximately 96,000 gpd of process water from the Copper Flat Open Pit sump(s) and dewatering system for use as dust suppression water within the OPSDA or for reuse in the process water circuit.

M. This Discharge Permit authorizes only those discharges specified herein. Any unauthorized discharges such as spills or leaks must be reported to NMED and remediated as required by Section 20.6.2.1203 NMAC, and any additional requirements listed in this Discharge Permit.

N. The permittee shall provide written notice to NMED of the commencement, of operations in accordance with Subsection C of 20.6.7.18 NMAC.

O. If the Copper Flat Mine is on standby pursuant to the Mining Act, the permittee shall provide written notice to the department indicating the planned date of recommencement of operations. Written notification shall be submitted to the department a minimum of 30 days prior to the date mining is to recommence.

Part C FACILITY SPECIFIC REQUIREMENTS

The permittee shall conduct the requirements set forth below in accordance with the WQCC Regulations of Subsection C of 20.6.2.3106 NMAC and Section 20.6.2.3107 NMAC to ensure compliance with 20.6.2 NMAC, and in accordance with applicable requirements of Part 20.6.7 NMAC.

C100 Practice of Engineering

A. Within 120 days of completion of construction of any mine unit authorized for construction and discharge as listed in B103, the permittee shall submit complete as-built drawings and/or a construction certification report pursuant to Paragraph (2) of 20.6.7.18.B NMAC.

B. Design, construction and location of all mine units shall be in accordance with applicable Copper Mine Rule requirements and the Discharge Plan.

C101 Construction Schedule and Progress Reports

A. Pursuant to Subparagraph (a) of 20.6.7.18.C(1), the permittee shall provide NMED with written notice a minimum of 30 days before commencing construction of mine units covered by this Discharge Permit. A summary of construction activities completed shall be submitted in accordance with Subsection B of 20.6.7.29 NMAC.

B. The permittee shall adhere to the sequencing schedule outlined in Table 2-1 of Revision 1 of the Updated Mine Operation Reclamation Plan (MORP) dated July 2017 and titled, "Copper Flat Development Sequence and Schedule," and as shown on Table 1 located on Page 31 of this

Discharge Permit. NMED shall be notified prior to any deviations from the sequencing schedule.

C. All containment systems, seepage, and stormwater collection units shall be in place prior to operation of any discharging mine unit.

C102 Copper Flat Open Pit

A. The Copper Flat Open Pit shall be operated in accordance with the applicable requirements of Section 20.6.7.24 NMAC.

B. Pursuant to Subsection A of 20.6.7.24 NMAC, expansion of the Copper Flat Open Pit shall not exceed the area shown on Figure 1 located on Page 34 of this Discharge Permit. The permittee must obtain a permit modification or amendment prior to expanding the Copper Flat Open Pit beyond the area shown on Figure 1 of this Discharge Permit.

C. Fluids generated within the open pit shall be managed according to the applicable requirements of 20.6.7.24.C NMAC, and the Sitewide Water Management Plan required pursuant to Condition C107.A.

C103 Waste Rock Stockpiles

A. Waste rock shall be handled and characterized in accordance with applicable requirements of Subsection A of 20.6.7.21 NMAC, and the NMED-approved material characterization and handling plans summarized and referenced in the Revised Application.

B. Design, construction and location of the waste rock stockpiles shall be in accordance with the Discharge Plan, and applicable requirements of Subsections B and C of 20.6.7.21 NMAC.

C. The permittee shall comply with applicable operational requirements listed in Paragraphs (2) through (8) of 20.6.7.21.D NMAC including the requirement to place waste rock on waste rock stockpiles to plan for closure to the extent practicable and be in accordance with the operating plan required in C111.J (Sections 20.6.7.18, 20.6.7.21 and 20.6.7.33 NMAC).

D. Pursuant to Paragraph (1) of 20.6.7.21.D NMAC and Paragraph (1) of 20.6.7.21.B NMAC, the waste rock stockpiles described in B103.B shall not exceed the footprint, configuration, and location shown in Figure 1 of this Discharge Permit. The permittee may only expand the permitted footprint for the purpose of facility closure, or through an NMED-approved permit amendment or modification to DP-1840.

E. Pursuant to Paragraph (c) of 20.6.7.21.A(2) NMAC and as outlined in the material handling plan in the Revised Application, the permittee shall place a minimum of 10 feet of not potentially acid generating (NPAG) waste rock material above and below any areas where acid generating or potentially acid generating (PAG) waste rock will be placed.

F. As outlined in the Revised Application, the portion of EWRSP-2A located outside the projected OPSDA shall be relocated onto the portion of EWRSP-2A that is located inside the projected OPSDA, during the mine start-up phase and prior to construction of WRSP-1.

C104 Impoundments

A. Design, construction and location of all impoundments shall be in accordance with the Discharge Plan, and applicable requirements of Subsection D of 20.6.7.17 NMAC.

B. Operation of all impoundments shall be in accordance with the applicable requirements of Subsection F of 20.6.7.18 NMAC.

C. Pursuant to Subsection C of 20.6.7.17 NMAC, the permittee shall submit to NMED for approval a liner system construction quality assurance/construction quality control (CQA/CQC) plan a minimum of 90 days prior to construction of any impoundment that requires a liner system.

D. Pursuant to Subsection B of 20.6.7.18 NMAC, the permittee shall submit a construction certification report within 120 days of construction completion of all impoundments that require a liner system.

E. In accordance with Subparagraph (c) of 20.6.7.17.D(2) NMAC, water levels in the PWR and UCP shall be maintained to provide capacity to convey maximum design process flow plus stormwater runoff from the reservoir catchment area while maintaining two-feet of freeboard.

F. In accordance with Subparagraph (e) of 20.6.7.17.D(2) NMAC, water levels in the SW-A, SW-B, and SW-C shall be maintained to provide capacity for a 100-year return interval storm event while preserving two-feet of freeboard under standard operating conditions and after storm events.

C105 Copper Crushing, Milling, Concentrator, and Tailings Storage Facility Units

A. Design, construction, and location of all crushing, milling, concentrating, and tailings storage facility units shall be in accordance with the Discharge Plan, and applicable requirements of Subsections A and B of 20.6.7.22 NMAC.

B. Operation of all crushing, milling, concentrating, and tailings storage facility units shall be in accordance with the Discharge Plan and applicable requirements of Subsection C of 20.6.7.22 NMAC.

C. Tailings Storage Facility

1. Deposition of tailings shall be in accordance with the operating plan required in C111.K.

2. Prior to initiation of construction of any portion of the TSF and associated dam, the

permittee shall submit to NMED documentation of compliance with the Dam Safety Bureau of the Office of the State Engineer permitting requirements pursuant to Section 72-5-32 NMSA 1978, and rules promulgated under that authority, unless exempt by law from such requirements.

3. Prior to discharging to the TSF, the permittee shall ensure that berms and/or the dam structure of the TSF will have the capacity for such discharges while maintaining appropriate safety measures in accordance with the regulations of the Dam Safety Bureau of the Office of the State Engineer and Paragraph (d) of 20.6.7.17.C(1) NMAC.

4. Pursuant to Subparagraph (4) of 20.6.22.A NMAC and Subsection B of 20.6.7.18 NMAC, the permittee shall submit a construction certification report within 120 days of TSF liner system installation.

5. Pursuant to Subparagraph (a) of 20.6.7.22.C(1) NMAC, the TSF shall not exceed the footprint (564 acres) or location and configuration as shown in Drawing 12 in Appendix J of the document titled *Feasibility Level Design, 30,000 TPD Tailings Storage Facility and Tailings Distribution and Water Reclaim Systems Copper Flat Project Sierra County, New Mexico Golder Associates Inc., Revised, November 2016* (i.e., Appendix A the Revised Application) and as shown on Figure 1 of this Discharge Permit. The permittee may only expand the permitted footprint for the purpose of facility closure, or through an NMED-approved permit amendment or modification to DP-1840.

C106 Sumps, Tanks, Pipelines and Other Containment Systems

A. Design, construction and location of all pipelines, tanks, and sumps shall be in accordance with the Discharge Plan, and applicable requirements of Subsections A and B of 20.6.7.23 NMAC.

B. Operation of all pipelines, tanks, and sumps shall be in accordance with the applicable requirements of Subsection C of 20.6.7.23 NMAC.

C. Detailed and complete construction plans and specifications and supporting design calculations for any proposed or required tanks, pipelines, sumps, or other containment systems, including any replacements thereof, shall be submitted to NMED pursuant to Paragraph (2) of 20.6.7.17.C NMAC and Section 20.6.2.23 NMAC, and D107 of this Discharge Permit. This requirement does not apply to portable or temporary tanks, pipelines, sumps, or other containment systems that are subject to periodic relocation during mining operations.

D. Pursuant to Subsection J of 20.6.7.33 NMAC, upon discontinuing the operation of, or before moving tanks, pipelines, sumps, or other containment systems, all liquids shall be released to a location specifically authorized in the discharge permit, an alternate location subject to NMED approval, or otherwise properly contained, transferred, or disposed of in a manner that does not result in discharge to non-authorized areas.

C107 Stormwater Management

A. Stormwater shall be managed in accordance with the applicable requirements of Paragraph (4) of 20.6.7.17.C NMAC, and in accordance with the Stormwater Management Plan included in the Revised Application.

B. To ensure compliance with Subparagraphs (e) and (f) of 20.6.7.17.D(2) NMAC, the permittee shall inspect all stormwater impoundments, conveyance channels and collection ponds on a monthly basis and after precipitation events that exceed one inch for evidence of stormwater accumulations that exceed design capacities. To properly manage stormwater, the permittee shall ensure that the pumping capacity is adequate to maintain storage capacity in all stormwater impoundments.

C. Open channel conveyance structures, including those located at the base of WRSP-1, WRSP-2, and WRSP-3, shall be designed and operated to meet the requirements of Subparagraph (f) of 20.6.7.17.D(2).

C108 Sitewide Water Management Plan

A. The Permittee shall submit to NMED for approval a Sitewide Water Management Plan no less than 60 days prior to discharge from the facility. The Sitewide Water Management Plan shall be a comprehensive plan that describes all water management systems at Copper Flat Mine and be designed, at a minimum, to meet the requirements of Paragraph (4) of 20.6.7.17.C NMAC (Stormwater Management Plan), Subsection C of 20.6.7.24 NMAC (Mine Operation Water Management Plan), and Subsection K of 20.6.7.30 NMAC (Interim Emergency Water Management Plan). Previously submitted documents in the Revised Application may be included as components of the Sitewide Water Management Plan including the Stormwater Management Plan and Mine Operation Management Plan. The Sitewide Water Management Plan shall be updated annually as specified in C113.

C109 Truck and Equipment Washing Units

A. Design, construction and location of truck and equipment washing units shall be in accordance with the Discharge Plan, and applicable requirements of Subsections A and B of 20.6.7.26 NMAC.

B. The permittee shall operate the truck and equipment washing units in accordance with the applicable requirements of Subsection C of 20.6.7.26 NMAC.

C110 Dust Suppression

A. Dust suppression on areas outside the OPSDA shall be conducted using water sources that do not exceed ground water quality standards set forth in Section 20.6.2.3103 NMAC.

B. 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 of water for dust suppression have been approved, the permittee shall notify NMED for approval in accordance with D107 prior to the proposed change.

C111 Domestic Wastewater Treatment Facility

A. The permittee shall utilize operators, certified by the State of New Mexico at the appropriate level, to operate the wastewater collection, treatment, and disposal system. The operations and maintenance of all or any part of the wastewater system shall be performed by, or under the direct supervision of, a certified operator. [Subsection C of 20.6.2.3109 NMAC, 20.7.4 NMAC]

C112 Flow Measurement

A. Pursuant to Paragraph (2) of 20.6.7.18.E NMAC, the permittee shall visually inspect all flow meters on a monthly basis for evidence of malfunction and repair or replace malfunctioning flow meters within 30 days of or as soon as practicable following discovery.

C113 Monitoring and Reporting

A. Pursuant to applicable requirements in Sections 20.6.7.28 and 20.6.7.29 NMAC, the permittee shall collect, preserve, transport, and analyze all ground water, process water, tailings slurry, impacted stormwater, seep, spring, and surface water samples from the facility in accordance with Table 2 located on Page 32 of this Discharge Permit, and any additional requirements listed in this Discharge Permit. Table 2 of this Discharge Permit provides a summary the monitoring and reporting requirements. Figures 2 and 3, located on Pages 35-36 of this Discharge Permit, designate sampling locations.

B. Samples of pit sump water, stormwater, PLS, seeps, and process water shall be analyzed for total concentrations for metal parameters (Suite C of Table 2) and dissolved concentrations for all parameters (including metal parameters) in accordance with Table 2 of this Discharge Permit. Samples of ground water and springs shall be analyzed for dissolved concentrations in accordance with Table 2 of this Discharge Permit.

C. The permittee shall submit monitoring reports to NMED on a semi-annual basis that contain all quarterly monitoring data and information collected pursuant to the requirements of this Discharge Permit, and applicable requirements of Section 20.6.7.29 NMAC. Semi-annual reports are due by February 28 and August 31 of each year. Data required to be submitted annually shall be submitted in the monitoring report due by February 28 of each year.

D. Pursuant to Subsection L of 20.6.7.28 NMAC, the permittee shall submit to NMED ground water elevation contour map(s) on a semi-annual basis and a map (or maps) showing the extent of the OPSDA and area of open pit hydrologic containment ("AOHPC") on an annual basis. The ground water elevation contour map(s) shall be of an appropriate scale to show ground

water elevation contours for the Copper Flat Mine; the contour maps shall include land surface topographic contours with appropriate contour intervals and shall include the monitoring wells that the ground water data is based on. The maps shall be submitted in the semi-annual monitoring reports in the format specified by Subsection C of 20.6.7.29 NMAC.

E. Implementation of all monitoring and reporting requirements listed in this Discharge Permit shall commence 180 days before emplacement of ore, waste rock, or discharge of tailings at an individual waste rock stockpile or tailings impoundment to allow for sampling and reporting prior to discharge, except as required under abatement pursuant to C114.C and C114.D.

F. The Permittee shall submit annually an updated Sitewide Water Management Plan that meets at a minimum the requirements of Paragraph (4) of 20.6.7.17.C NMAC (Stormwater Management Plan), Subsection C of 20.6.7.24 NMAC (Mine Operation Water Management Plan), and Subsection K of 20.6.7.30 NMAC (Interim Emergency Water Management Plan). The update shall be submitted to NMED as an attachment to the monitoring report due on February 28 of each year.

G. Requests to change monitoring and reporting requirements may require an amendment or modification to this Discharge Permit as required by the secretary. [20.6.2.7 NMAC]

H. **Ground Water**

1. Pursuant to Subsection B of 20.6.7.28 NMAC the permittee "shall monitor ground water quality as close as practicable around the perimeter and downgradient of each open pit, waste rock stockpile, tailings impoundment, process water impoundment, and impacted stormwater impoundment."
2. Pursuant to Paragraph (1) of 20.6.7.28.B NMAC, the existing monitoring wells listed in Table 2 of this Discharge Permit, except GWQ-1 and GWQ-8 as discussed in C111.G.4 below, have been deemed appropriate by NMED for continued use as ground water monitoring wells under this Discharge Permit. These ground water monitoring wells, installed prior to the effective date of the Copper Mine Rule, have been identified to be constructed in accordance with the Copper Mine Rule.
3. Pursuant to Subsection G of 20.6.7.28 NMAC, the permittee shall sample and analyze ground water quarterly from all monitoring wells in accordance with Table 2 of this Discharge Permit, and applicable requirements of Subsection F of 20.6.7.28 NMAC. Analytical results shall be submitted in the semi-annual monitoring reports in the format specified by Subsection C of 20.6.7.29 NMAC.
4. Monitoring Wells GWQ-1 and GWQ-8 are not constructed in accordance with Section 20.6.7.28 NMAC; however, these wells are authorized for incorporation into the monitoring network to provide contextual ground water information for this Discharge Permit.

5. Pursuant to Paragraph (a) of 20.6.7.28(2) NMAC, the permittee shall install all proposed monitoring wells at least 180 days before emplacement of ore, waste rock, or discharge of tailings or other contaminants at an individual waste rock stockpile or tailings impoundment to allow sampling prior to discharge, except as required under abatement pursuant to C114.C and C114.D.

    a. The permittee shall provide NMED with a definitive installation schedule as project approval dates become more certain.

    b. All proposed monitoring wells shall be installed in accordance with Subsections B, C, D and E of 20.6.7.28 NMAC. Within 15 days of completion of each new monitoring well the permittee shall provide NMED with depth-to-water measurements and water quality field parameter data. Pending ground water conditions in the newly installed monitoring wells, additional requirements may be necessary. The permittee shall notify NMED in writing a minimum of one week prior to the start of installation of the monitoring wells. Upon completion of the installation of the monitoring wells, the permittee shall submit to NMED a monitoring well completion report for all newly-installed monitoring wells in accordance with the applicable requirements of Subsection K of 20.6.7.28 NMAC.

6. The permittee is authorized to plug and abandon Monitoring Wells GWQ-11, GWQ94-13, GWQ94-16, GWQ94-17, GWQ94-18, GWQ94-19, GWQ94-20, IW-1, IW-2, IW-3, NP-2, NP-3, NP-5, GWQ11-25A and GWQ11-25B, which will be buried during construction of the TSF and enlargement of the open pit (GWQ11-25A, and GWQ11-25B).

    a. Monitoring wells shall be plugged and abandoned in accordance with the attachment titled, *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011, and all applicable local, state, and federal regulations, including 19.27.4 NMAC.

    b. The permittee shall submit documentation describing the well abandonment procedures in accordance with the attachment titled, *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011. The well abandonment documentation shall be submitted to NMED with the next semi-annual monitoring report for this Discharge Permit upon completion of abandonment procedures.

    c. Pursuant to Subsection B of 20.6.7.30 NMAC, NMED may require replacement monitoring wells.

7. The permittee shall include Monitoring Wells NP-1, NP-4, GWQ-10, GWQ94-21A, GWQ94-21B, GWQ94-14, GWQ94-15, GWQ11-25A, and GWQ11-25B in the monitoring plan until expansion of the TSF requires plugging and abandonment of these wells.

8. The permittee shall submit a request in accordance with D105 prior to plugging and abandonment of any monitoring well.

I. **Additional Monitoring Wells**

1. The permittee shall install two additional monitoring well (PWQ-23, PGW-24). PGQ-23 shall be located along the southwest toe of the TSF between GWQ-6 and GWQ-12, and the PGQ-24 shall be located along the northeast toe of the WRSP-3 between PGWQ-3 and PGWQ-4.
2. Pursuant to Subsection A of 20.6.7.28 NMAC, the permittee shall submit a map identifying the proposed locations and provide construction details for the monitoring wells for NMED approval a minimum of 30 days prior to installation.
3. Installation of the monitoring wells shall be in accordance with Subsections B, C, D and E of 20.6.7.28 NMAC.

J. The permittee shall notify NMED in writing a minimum of one week prior to the start of installation of the monitoring well required in C114.C.3. Upon completion of the installation of the monitoring well, the permittee shall submit to NMED monitoring well completion report for the newly-installed monitoring well in accordance with the applicable requirements of Subsection K of 20.6.7.28 NMAC.

K. **Surface Water**

1. The permittee shall analyze surface water collected from five surface water auto-sampling ports (SWQ-1 through SWQ-5) located in Grayback Arroyo in accordance with the applicable requirements of the Revised Application and Subsection N of 20.6.7.28 NMAC. The surface water collection ports shall be checked after each precipitation event of 0.5 inch or greater at the Copper Flat Mine. If sufficient water is present, a sample shall be collected and analyzed. The permittee 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 may be collected in a 24-hour period, and no more than two surface water samples per port are required to be collected per quarter. Samples shall be analyzed for total and dissolved concentrations of the analytes listed on Table 2 of this Discharge Permit. Analytical results shall be submitted in the semi-annual monitoring reports in the format specified by Subsection C of 20.6.7.29 NMAC.
2. The permittee shall sample and analyze surface water collected quarterly from any seeps or springs, if encountered, outside the OPSDA in accordance with the schedule listed in Table 2 of this Discharge Permit, and applicable requirements of Subsection N of 20.6.7.28 NMAC. Analytical results shall be submitted in the semi-annual monitoring reports in the format specified by Subsection C of 20.6.7.29 NMAC.

L. **Copper Flat Open Pit**

1. Pursuant to Subsection C of 20.6.7.24 NMAC, the permittee shall submit on an annual basis a mine operation water management report summarizing the pit dewatering activities for the Copper Flat Open Pit for the previous year, including reporting on volumes of water

pumped to dewater the pit and location of pumping. . The report shall also discuss changes and planned activities for dewatering the Copper Flat Open Pit for the coming year. The planned future dewatering activities shall be incorporated into the annual Sitewide Water Management Plan update required pursuant to C113.F.

M. **Waste Rock Stockpiles**

1. Pursuant to Paragraph (7) of 20.6.7.21.D NMAC, the permittee shall submit on an annual basis an operating plan that describes the sequencing of waste rock deposition on the waste rock stockpiles, including the volume and location of NPAG waste rock material placed in the past year and a proposal for material placement for the next year, and describes the operation of any applicable systems utilized to contain or transport process water or impacted stormwater from the waste rock stockpiles. The operating plan shall be submitted with the monitoring report due by February 28 of each year.

N. **Copper Crushing, Milling, Concentrator, and Tailings Storage Facility Units**

1. Pursuant to Subparagraph (j) of 20.6.7.22.C(1) NMAC, the permittee shall submit on an annual basis an operating plan that describes the sequencing of tailings deposition on the TSF and describes the operation of any applicable systems utilized to contain or transport process water and measures taken to manage the surface impoundment area to maintain adequate freeboard.

O. **Discharge Volumes**

1. The permittee shall measure and report discharge volumes for process water, liner solution collection systems, tailings and impacted stormwater discharges in accordance with Subsections B, E, and F of 20.6.7.29 NMAC and the flow metering plan submitted with the Revised Application. Flow meter locations used for monitoring and reporting are schematically displayed on Figure 3 of this Discharge Permit. Discharge volume reporting shall be submitted in the semi-annual monitoring reports in the format specified by Subsection C of 20.6.7.29 NMAC. In addition to applicable discharge volume reporting required by Subsections B, E, and F of 20.6.7.29 NMAC, additional discharge volume reporting for the following shall be measured and reported:

    a. The daily volume and source of water used for dust suppression.

P. **Flow Measurement Report**

1. Pursuant to Subparagraph (a) of 20.6.7.18.E.2 NMAC, the permittee shall submit a report of repaired or replaced flow meters in the semi-annual monitoring reports that include a description of any flow meter malfunctions with a statement verifying the repair and description of calibration of the flow meter pursuant to Paragraph (3) of 20.6.7.18.E NMAC.

Q. **Impoundment Leak Detection/Collection System Report**

1. Pursuant to Subparagraph (b) of 20.6.7.18.F.2 NMAC, the permittee shall submit a report of repaired or replaced leak detection/collection system components in the semi-annual monitoring reports.

R. **Meteorological Data**

1. Meteorological data shall be measured and reported as stipulated in the Meteorological Plan submitted with the Revised Application. Pursuant to Subsection G of 20.6.7.29 NMAC, tabulated data shall be submitted to NMED in the monitoring report due by February 28 of each year.

C114 Contingency Plan

A. The permittee shall comply with all applicable contingency requirements and submit to NMED all applicable information or documentation specified in Subsections A through J of 20.6.7.30 NMAC.

B. Pursuant to Subsection G of 20.6.7.30 NMAC, discharges of process water, impacted stormwater, or seepage that exceed the standards of Section 20.6.2.3103 NMAC to unauthorized areas must be reported under Section 20.6.2.1203 NMAC.

C. Pursuant to Subsection K of 20.6.7.30 NMAC, the permittee shall submit to NMED for approval an Interim Emergency Water Management Plan no less than 60 days prior to discharge at the mine facility. The Interim Emergency Water Management shall be a component of the Sitewide Water Management Plan required in C108.A.

D. Pursuant to Subsection I of 20.6.7.30 NMAC, the permittee shall notify NMED of any significant erosion or condition that may compromise conveyance structures utilized in DP-1840.

E. If NMED or the permittee identifies any other failures of the discharge plan or system not specifically noted in this permit, NMED may require the permittee to develop and submit contingency plans and schedules for NMED approval to address such failures. [20.6.2.3107.A.10 NMAC]

C115 Closure Plan

A. Closure of all mine units associated with this Discharge Permit shall be performed in accordance with the requirements of Sections 20.6.7.33 and 20.6.7.34 NMAC, the Closure/Closeout Plan contained in the Revised Application, this Discharge Permit as applicable, and the final Closure/Closeout Plan approved by the New Mexico Mining and Minerals Division pursuant to the New Mexico Mining Act.

B. Pursuant to Paragraph (4) of 20.6.7.33.F NMAC and Subsection F of 20.6.7.34 NMAC, the permittee shall submit for NMED approval at least sixty days prior to construction, a Construction Quality Assurance/Construction Quality Control (CQA/CQC) plan for any mine units regulated pursuant to DP-1840 where cover is applied under an approved Closure/Closeout Plan.

C. For each mine unit closed, the closure period shall cease, and the post-closure period shall commence following NMED approval of a final CQA/CQC report that is in accordance with Subsection G of 20.6.7.34 NMAC.

D. The permittee shall provide a workplan and an implementation schedule, as a component of the Test Plot Program, for NMED approval within 90 days of the effective date of this permit (by DATE) to perform soil water characteristic curve laboratory analysis on the proposed reclamation cover material (RCM). The workplan shall be designed to verify Copper Mine Rule water holding capacity requirements pursuant to Subsection F of 20.6.7.33 NMAC. Based on the results of developed soil water characteristic curves, the permittee will be required to implement an appropriate material handling plan at closure to ensure the emplaced cover material textural characteristics achieves the water holding capacity required pursuant to Section 20.6.7.33 NMAC. Final RCM approval is subject to a demonstration that Copper Mine Rule requirements will be met, and concurrence from the New Mexico Mining and Minerals Division that requirements of the Mining Act will be met.

E. To demonstrate that the proposed RCM material will be capable of sustaining plant growth without continuous augmentation and have erosion resistant capabilities as required pursuant to Subsection F of 20.6.7.33 NMAC, the permittee shall conduct a RCM Test Plot Program. The RCM Test Plot Program shall be conducted in accordance with all approved work plans, and applicable New Mexico Mining and Minerals Division requirements.

F. In accordance with Subsection H of 20.6.7.33 NMAC, the permittee shall manage all process water at closure pursuant to the water management plan described in the Revised Application.

G. Surface water quality standards will not apply to the pit lake water body that will exist at closure so long as the pit lake remains a hydrologic evaporative sink and the pit lake water body remains wholly on private land (20.6.4.7(S)(5) NMAC).

H. Closure of EWRSP-1 and EWRSP-2B shall be completed during the preproduction period of its mining operation in accordance with the requirements of Sections 20.6.7.33 and 20.6.7.34 NMAC, the Revised Application and this Discharge Permit, as applicable. Closure of EWRSP-1 and EWRSP-2B shall be completed no later than three years from the effective date of this Discharge Permit.

I. The southern slopes of EWRSP-4 facing Grayback Arroyo shall be reclaimed during the preproduction period of its mining operation, and the top surface shall be filled and graded to a

1% slope in accordance with the requirements of Sections 20.6.7.33 and 20.6.7.34 NMAC, the Revised Application and this Discharge Permit, as applicable.

J. **Post-Closure Conditions**

1. Post-closure requirements shall be performed in accordance with the applicable requirements of Section 20.6.7.35 NMAC, and in accordance with the Closure/Closeout Plan and associated materials submitted as part of this Discharge Permit. Pursuant to Subsection D of 20.6.7.35 NMAC, the permittee shall submit to NMED semi-annual reports pursuant to the schedule in Subsection A of 20.6.7.29 NMAC that include, but are not limited to, a description and the results of post-closure monitoring, any work completed during the preceding semi-annual period, any maintenance and repair work conducted for any closure unit, status of post-closure activities, and semi-annual potentiometric maps.
2. Pursuant to Subsection E of 20.6.7.35 NMAC, the contingency requirements of Section 20.6.7.30 NMAC apply to any deficiencies discovered during post-closure monitoring and inspections, including, but not limited to, the requirements for possible corrective action plans, abatement plans, monitoring well replacement, reporting and correction of unauthorized discharges, and significant erosion of, or ponding of water on, a cover system.

C116 Abatement Plan

A. The permittee has been required to submit to NMED for approval a proposed abatement plan for the Copper Flat Mine. All abatement plans and activities shall be performed in accordance with Sections 20.6.2.4000 through 4115 NMAC and Paragraphs (3) and (4) of 20.6.7.30.A NMAC.

B. Within 180 days of the date of this Discharge Permit (by DATE), the permittee shall submit a workplan to evaluate any potential ongoing sources of surface or ground water impacts to Grayback Arroyo and connected aquifers. The workplan shall include a schedule and any corrective action measures, if necessary, to address any currently known source areas of impacts to Grayback Arroyo and connected aquifers pursuant to Sections 20.6.2.4000 NMAC through 4115 NMAC.

C. **Additional Monitoring Wells**

4. In addition to the monitoring wells already proposed in the Revised Application, the permittee shall install two additional monitoring wells to evaluate current ground water conditions proximal to the open pit and historic waste rock stockpiles. One monitoring well shall be located to the northeast side of the open pit at the intersection of ground water contour interval 5450 feet and the OPSDA (PGWQ-21) as shown on Figure 2 of this Discharge Permit, and a second monitoring well shall be located southwest of the open pit near the intersection of ground water contour interval 5480 feet and the OPSDA between GWQ-11-24B and GWQ11-26 (PGWQ-22).

5. Pursuant to Subsection A of 20.6.7.28 NMAC, the permittee shall submit a map identifying the proposed locations and provide construction details for the monitoring wells for NMED approval a minimum of 30 days prior to installation. The proposal shall consider the necessity of a nested pair monitoring well(s) to evaluate ground water conditions in different water bearing units or to account for ground water decline due to pit dewatering.

6. Within 180 days of the date of this Discharge Permit (by DATE), the permittee shall install monitoring wells PGWQ-1, PGWQ-5, PGWQ-13, PGWQ-20, PGWQ-21, and PGWQ-22 to provide additional information regarding the horizontal and vertical extent and magnitude of ground water contamination as required pursuant to Sections 20.6.2.4000 NMAC through 20.6.2.4115 NMAC.

7. Installation of the monitoring wells shall be in accordance with Subsections B, C, D and E of 20.6.7.28 NMAC.

8. The permittee shall notify NMED in writing a minimum of one week prior to the start of installation of the monitoring wells required in C114.C.3. Upon completion of the installation of the monitoring wells, the permittee shall submit to NMED monitoring well completion reports for the newly-installed monitoring wells in accordance with the applicable requirements of Subsection K of 20.6.7.28 NMAC.

D. **Additional Stage 1 Abatement Plan Ground and Surface Water Quality Information**

1. The permittee shall collect an additional four quarters of ground and surface water data from the monitoring wells required in C114.C.3, and the previously approved Stage 1 Abatement Plan sampling locations shown in Table 2 of the document entitled, "Results from First Year of Stage 1 Abatement Investigation at the Copper Flat Mine Site Near Hillsboro, New Mexico," dated May 2014.

2. The initial abatement sampling event shall commence following completion of installation of monitoring wells required in C114.C.3. Analytical results shall be submitted semi-annually in the format specified by Subsection C of 20.6.7.29 NMAC.

C117 Financial Assurance

A. The permittee shall maintain joint financial assurance with NMED and the Mining and Minerals Division of the New Mexico Energy, Minerals and Natural Resources Department to cover costs associated with closure and post-closure activities approved under this Discharge Permit. [20.6.2.3107 NMAC]

Part D GENERAL CONDITIONS

NMED has reviewed the Discharge Plan for the proposed discharge permit and has determined that the provisions of the Copper Mine Rule and applicable ground water quality standards will be

met in accordance with this Discharge Permit. General conditions pursuant to 20.6.2 NMAC and 20.6.7 NMAC are listed below.

D100 Enforcement

A. Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the permittee to a civil enforcement action pursuant to the NMSA 1978, Section 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, modifying 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 NMSA 1978, Section 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 NMSA 1978, Section 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. In any action to enforce this Discharge Permit, the permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. The permittee does not waive any argument as to the weight such evidence should be given. [74-6-10 WQA, 74-6-10.1 WQA]

B. Pursuant to the NMSA 1978, Section 74-6-10.2(A-F), criminal penalties may be assessed for any person who knowingly violates or knowingly causes or allows another person to:

1. Make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the WQA;
2. Falsify, tamper with or render inaccurate any monitoring device, method or record required to be maintained under the WQA; or
3. Fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation.

D101 General Inspection and Entry Requirements

A. 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, 74-6-9(B) & (E) WQA]

B. The permittee shall allow the Secretary or an authorized representative, upon the presentation of credentials, to [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]:

1. Enter at regular business hours or at other reasonable times upon the permittee's premises or other location where records must be kept under the conditions of this Discharge Permit,

or under any federal or WQCC regulation.

2. 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.
3. 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.
4. Sample or monitor, at reasonable times for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the WQA, any effluent, water contaminant, or receiving water at any location before or after discharge.

D102 General Engineering, Operational and Setback Requirements

A. Mine units shall be designed in accordance with the applicable requirements of Section 20.6.7.17 NMAC.

B. Mine units shall be operated in accordance with the applicable requirements of Section 20.6.7.18 NMAC.

C. The permittee shall meet all applicable setback requirements pursuant to Section 20.6.7.19 NMAC.

D103 General Record Keeping and Reporting Requirements

A. The permittee shall retain written records at the copper mine facility as required pursuant to Section 20.6.7.37 NMAC.

B. The permittee shall furnish to NMED, within a reasonable time, any documents or other information which it may request to determine whether cause exists for modifying, terminating and/or renewing this Discharge Permit or to determine compliance with this Discharge Permit. The permittee shall also furnish to NMED, upon request, copies of documents required to be kept by this Discharge Permit. [20.6.2.3107.D NMAC, 74-6-9 (B) & (E) WQA]

D104 General Sampling and Analytical Methods

A. Unless otherwise approved in writing by NMED, the permittee shall conduct sampling and analysis in accordance with the most recent edition of the following documents [Subsection B of 20.6.2.3107 NMAC]:

1. American Public Health Association, Standard Methods for the Examination of Water and Wastewater (18^{th}, 19^{th}, or current)

2. U.S. Environmental Protection Agency, Methods for Chemical Analysis of Water and Waste
3. U.S. Geological Survey, Techniques for Water Resources Investigations of the U.S. Geological Survey
4. American Society for Testing and Materials, Annual Book of ASTM Standards, Part 31. Water
5. U.S. Geological Survey, et al., National Handbook of Recommended Methods for Water Data Acquisition
6. Federal Register, latest methods published for monitoring pursuant to Resource Conservation and Recovery Act regulations
7. Methods of Soil Analysis: Part 1. Physical and Mineralogical Methods; Part 2. Microbiological and Biochemical Properties; Part 3. Chemical Methods, American Society of Agronomy

D105 Monitoring Well Abandonment

A. The permittee shall submit a written request for NMED approval to amend or modify this Discharge Permit at least 30 days prior to the anticipated destruction or removal of any monitoring wells required under this Discharge Permit. Monitoring well plugging and abandonment shall be completed in accordance with the *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011, or according to regulations issued by the Office of the State Engineer in 19.27.7 NMAC, unless an alternate method is approved by NMED. [20.6.2.3107 NMAC]

B. The request required in D105.A shall include the following information:

1. A scaled map showing the location of the monitoring well(s) and the mine units it is intended to monitor;
2. The purpose for plugging and abandoning the monitoring well(s);
3. Details, if available, on the monitoring well(s) including depth-to-water elevation, top-of-casing elevation, construction and lithologic logs;
4. Ground water analytical results from a minimum of the most recent eight sampling events from the monitoring well(s);
5. Proposed replacement well(s), if applicable, and;
6. Same details, as applicable, as provided in D105.B.1, D105.B.3, and D105.B.4 are required for the proposed replacement monitoring well(s). New replacement wells require monitoring well completion reports pursuant to Subsection K of 20.6.7.28 NMAC.

D106 Reporting Requirements for Unauthorized Discharges

A. In the event of a spill or release that is not authorized under this Discharge Permit, the permittee shall initiate the notifications and corrective actions as required in 20.6.2.1203 NMAC. The permittee 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, the permittee shall verbally notify NMED and provide the information required by Paragraph (1) of 20.6.2.1203.A NMAC, and to determine applicable monitoring and reporting requirements pursuant to Paragraphs (2) and (3) of 20.6.7.29.B NMAC. Within 7 days of discovering of a discharge reportable under 20.6.2.1203 NMAC, the permittee shall submit a written report to NMED verifying the oral notification and providing any additional information or changes. The permittee shall submit a corrective action report within 15 days after discovery of the discharge. [20.6.2.1203 NMAC]

B. As part of the 24-hour spill notification requirements, the permittee shall submit a figure to NMED that clearly displays the location (or locations) of the spill and identifies nearby mine units and/or location information in latitude/longitude coordinates in decimal degrees (XX.XXXXXX and –XXX.XXXXXX, respectively), using a specified datum of WGS 84. Submittal of location information in Universal Transverse Mercator (UTM) format is also acceptable.

D107 Modifications and Amendments

A. In the event the permittee proposes a change to the facility or the facility's discharge that would result in a change in the volume discharged; the location of the discharge; or the amount or character of water contaminants received, treated, or discharged by the facility, the permittee shall notify and obtain approval from NMED prior to implementing such changes. Such changes may require modification or amendment of this Discharge Permit, including payment of applicable fees as specified in Section 20.6.7.9 NMAC. [20.6.2.3107.C NMAC, 20.6.2.3109.E NMAC, 20.6.7.7.B(19) NMAC, 20.6.7.14 NMAC]

B. For any proposed change that would meet the definition of a discharge permit modification as specified in Paragraph P of 20.6.2.7 NMAC, the permittee shall submit for NMED approval an application for modification of this Discharge Permit pursuant to Sections 20.6.7.10 and 20.6.7.11 NMAC. Plans and specifications shall be included in the application, as applicable, pursuant to Section 20.6.7.17 NMAC.

C. For any proposed change that meets the definition of a discharge permit amendment as specified in Paragraph 19 of 20.6.7.7.B NMAC, the permittee shall submit to NMED a request for an amendment to this Discharge Permit pursuant to Section 20.6.7.14 NMAC. Plans and specifications shall be included in the request, as applicable, pursuant to Section 20.6.7.17 NMAC.

D. Pursuant to Section 20.6.2.3109 NMAC, NMED reserves the right to require a discharge permit modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated, or the standards of Section 20.6.2.3103 NMAC are being or may be violated. This may include a determination that structural controls and/or management practices approved under this Discharge Permit are not protective of groundwater quality, and that more stringent requirements are needed to protect groundwater quality. The permittee may be required to abate water pollution.

D108 Compliance with Other Laws

A. Nothing in this Discharge Permit shall be construed in any way as relieving the permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders. [20.6.2 NMAC, 20.6.7.8(D) NMAC]

Table 1 – Copper Flat Development Sequence and Schedule

Project Build Out Sequence					Project Reclamation Sequence	
Year	Project Activity	Disturbed Acres Facility	Disturbed Acres Cumulative	19.10.1602.D(15)(c) Reference	Year	Reclamation Activity
1	Mobilize Construction	0.00	0.00	Other Facility or Structures (c)xiii	1	
	Plant Site Grading	84.41	84.41	Other Facility or Structures (c)xiii		
	TSF Phase 1	451.50	535.91	Tailings Storage Facility (c)vii		
	Top Dressing Stockpile 1	29.33	565.24	Topsoil & Topdressing Stockpiles (c)xi		
	Construct Mill	8.51	573.75	Mills (c)viii		
	Construct Ancillary Facilities	8.89	582.64	Other Facility or Structures (c)xiii		
	Storage Areas	3.22	585.86	Storage Areas (c)x		
	EWRSP 1	15.34	601.20	Waste Rock Stockpiles (c)xii		
	EWRSP 2A	8.33	609.53	Waste Rock Stockpiles (c)xii		
	EWRSP 2B	12.73	622.26	Waste Rock Stockpiles (c)xii		
	EWRSP 3	19.54	641.80	Waste Rock Stockpiles (c)xii		
	EWRSP 4	18.10	659.90	Waste Rock Stockpiles (c)xii		
	Mine Haul Roads	5.97	665.87	Waste Rock Stockpiles (c)xii		
	Impoundments : TSF; Proc; SW A	12.92	678.79	Impoundments (c)ii		
	Collection Ditches: SW A	1.38	680.17	Impoundments (c)ii		
2	Top Dressing Stockpile 2	31.55	711.72	Topsoil & Topdressing Stockpiles (c)xi	2	Reclaim EWRSP 1
	Top Dressing Stockpile 3	3.53	715.25	Topsoil & Topdressing Stockpiles (c)xi		Reclaim EWRSP 2A
	Construct Ancillary Facilities	21.10	736.35	Other Facility or Structures (c)xiii		Reclaim EWRSP 2B
	Open Pit	82.66	819.01	Open Pit (c)vi		
	WRSP 1	3.97	822.98	Waste Rock Stockpiles (c)xii		
	WRSP 2	2.44	825.42	Waste Rock Stockpiles (c)xii		
	WRSP 3	6.07	831.49	Waste Rock Stockpiles (c)xii		
	Mine Haul Roads	11.03	842.52	Waste Rock Stockpiles (c)xii		
	EWRSP 4	4.52	847.04	Waste Rock Stockpiles (c)xii		
	Ore Stockpile	2.07	849.11	Ore Stockpiles (c)i		
	Impoundments : Surge; SW B; SW C	8.99	858.10	Impoundments (c)ii		
	Collection Ditches: SW B; SW C	4.42	862.52	Impoundments (c)ii		
3	Top Dressing Stockpile 3	10.58	873.10	Topsoil & Topdressing Stockpiles (c)xi	3	
	Open Pit	66.13	939.23	Open Pit (c)vi		
	WRSP 1	27.80	967.03	Waste Rock Stockpiles (c)xii		
	WRSP 2	4.88	971.91	Waste Rock Stockpiles (c)xii		
	WRSP 3	18.20	990.11	Waste Rock Stockpiles (c)xii		
	TSF Phase 2	28.22	1,018.33	Tailings Storage Facility (c)vii		
4	WRSP 1	7.94	1,026.27	Waste Rock Stockpiles (c)xii	4	
	WRSP 2	19.51	1,045.78	Waste Rock Stockpiles (c)xii		
	WRSP 3	18.20	1,063.98	Waste Rock Stockpiles (c)xii		
	TSF Phase 3	28.22	1,092.20	Tailings Storage Facility (c)vii		
5	Open Pit	8.27	1,100.47	Open Pit (c)vi	5	
	WRSP 2	14.63	1,115.10	Waste Rock Stockpiles (c)xii		
	WRSP 3	18.20	1,133.30	Waste Rock Stockpiles (c)xii		
	TSF Phase 4	28.22	1,161.52	Tailings Storage Facility (c)vii		
6	Open Pit (buildout complete)	8.27	1,169.79	Open Pit (c)vi	6	
	WRSP 1	0.00	1,169.79	Waste Rock Stockpiles (c)xii		
	WRSP 2	4.88	1,174.67	Waste Rock Stockpiles (c)xii		
	WRSP 3	18.20	1,192.87	Waste Rock Stockpiles (c)xii		
7	WRSP 2, 3	2.44	1,195.31	Waste Rock Stockpiles (c)xii	7	
	WRSP 3	18.20	1,213.51	Waste Rock Stockpiles (c)xii		
	TSF Phase 5 (buildout complete)	28.22	1,241.73	Tailings Storage Facility (c)vii		
8	WRSP 3	18.20	1,259.93	Waste Rock Stockpiles (c)xii	8	
9 - 11	WRSP 3 (buildout complete)	6.07	1,266.00	Waste Rock Stockpiles (c)xii	10 - 11	WRSP 3 Contour
12					12	WRSP 3 Contour, TSF Draindown - Active Evaporation
13					13	Pit Rapid Fill, WRSP 2-Upper Lift Contour, WRSP 1-Contour, TSF Draindown - Active Evaporation
14	Mining and Processing Ends				14	Rapid Fill, WRSP-2 Upper Lift Contour, WRSP 1 - Contour, Fill & Contour, WRSP 3, 2, 1, EWRSP 4 Cover & Seed, TSF Draindown - Active Evaporation
15					15	Process Area Demo, Fill & Contour, WRSP 3, 2, 1, EWRSP 3 & 4 Contour, Cover & Seed, Pit Area Contour, TSF Contour, Draindown - Active Evaporation
16					16	Process Area Fill & Contour, WRSP 3, , 2, 1, EWRSP 3 & 4 Contour, Cover, Seed, TSF Contour, Draindown - Active Evaporation
17					17	TSF Contour, Draindown - Active Evaporation
18	Evaporation Pond Construction (Project Buildout Complete)	24.05	1,290.05	Impoundments (c)ii	18	TSF Contour & Cover, Draindown - Active Evaporation, Passive Evaporation
19					19	TSF Contour, Cover, Draindown - Passive Evaporation
20 - 21					20 - 21	TSF Contour, Cover, Seed, Draindown - Passive Evaporation
22 - 38					22 - 38	TSF Draindown - Passive Evaporation
39					39	TSF Evaporation Pond Fill, Cover & Seed

Table 2 – Monitoring and Reporting Summary for DP-1840

Monitoring Report Schedule of Submittal (Subsection A of 20.6.7.29 NMAC)	
1	January 1 - June 30 (Q1 and Q2 sampling quarters) – Semi-annual report due by August 31 of each year
2	July 1 - December 31 (Q3 and Q4 sampling quarters) – Semi-annual report due by February 28 of each year
3	Annual reports due by February 28 of each year

Reporting Summary

Annual Reporting Frequency	**Number of Sites**	**Description**
2	Not Applicable	Monitoring reports – All applicable requirements of Subsections A through H of 20.6.7.29 NMAC, and C113.
2	Not Applicable	Additional Discharge Volume reporting listed in C111.L
2	1	Mine facility ground water elevation contour map
1	1	OPSDA and AOPHC Map(s)

Monitoring Schedule

Area	**Identification Number**	**Sampling**					**Notes**
		type	**Q1**	**Q2**	**Q3**	**Q4**	
Open Pit	GWQ96-22A	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ96-22B	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ11-26	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ96-23A	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ96-23B	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ11-24A	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ11-24A	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-1	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-2	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-21	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-22	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
TSF	GWQ-1	mw & p	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ-8	mw & p	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ-10	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ-12	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	NP-1	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	NP-4	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ94-14	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ94-15	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ94-21A	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ94-21B	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	GWQ13-28	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-14	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-15	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-16	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-18	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-19	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-23	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
TSF/UCP	PGWQ-17	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
TSF/WRSP-2 &-3	PGWQ-13	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
Surge Pond	GWQ-5R	mw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-9	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
WRSP-2 &-3	PGWQ-3	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-4	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-5	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	

	PGWQ-8	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-20	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-24	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
SW-C/ WRSP-2 & WRSP-3	PGWQ-6	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-7	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
SW-A	PGWQ-10	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
PWR	PGWQ-11	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
SW-A/PWR	PGWQ-12	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
Grayback Arroyo^	SWQ-1	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SWQ-2	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SWQ-3	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SWQ-4	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SWQ-5	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
Impoundments	SW-A(M/S-9)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SW-B (M/S-10)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SW-C (M/S-11)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	PWR (M/S-8)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	Surge Pond (M/S-14)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	UCP (M/S-6)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	TSF (M/S-4)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
Mine Pit Water	Dewatering Sump	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
Seeps/Springs	Outside OPSDA only	spg/ sp	A-F,W	A-D,W	A-D,W	A-D,W	If encountered
Flow Meters/Discharge Volume Reporting	M/S-1 through M/S-17		C.111.L &M	C.111.L &M	C.111.L &M	C.111.L &M	See Figure 3

Sampling Analytical Suites (dissolved concentrations in mg/L, unless otherwise noted):

A = Field Parameters: Temperature (^oC), pH, specific conductance (µS/cm),

B = General Chemistry and Inorganic Parameters: alkalinity-bicarbonate (alk-HCO_3), alkalinity-carbonate (alk-CO_3), alkalinity-total (alk-Tot), calcium (Ca), chloride (Cl), cyanide (CN), fluoride (F), magnesium (Mg), potassium (K), sodium (Na), sulfate (SO_4), and total dissolved solids (TDS)

C = Metal Parameters: aluminum (Al), arsenic (As), barium (Ba), beryllium (Be), boron (B), cadmiun (Cd), chromiun (Cr), cobalt (Co), copper (Cu), iron (Fe), lead (Pb), manganese (Mn), molybdenum (Mo), nickel (Ni), selenium (Se), silver (Ag), total mercury (Hg), uranium (U), and zinc (Zn).

D = Nutrients: Total Kjeldahl nitrogen (TKN), and Nitrate-Nitrogen (NO_3-N)

E = Radioactivity: Combined Radium-226 and Radium-228 (pCi/L)

F = Organic Parameters: Total Petroleum Hydrocarbons (TPH), benzene, polychlorinated biphenyls (PCBs), toluene, carbon tetrachloride, 1,2-dichloroethane (EDC), 1,1-dichloroethlyene (1,1-DCE), 1,1,2,2-tetrachloroethylene (PCE), 1,1,2-trichloroethylene (TCE), ethylbenzene, total xylenes , methylene chloride, chloroform, 1,1-dichloroethane, ethylene dibromide (EDB), 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2,2-tetrachloroethane, vinyl chloride, PAHs: total naphthalene plus monomethylnaphthalenes, benzo-a-pyrene

Measurements

W = Depth-to-water measurement to the nearest 0.01 foot

^ = See C111.H

Explanation to Abbreviations and Symbols		
mw = monitoring well	WRP = Waste Rock Stockpile	Sampling Quarter:
Pmw = proposed monitoring well	PWR = Process Water Reservoir	Q1 = Jan-Mar
sw = surface water	UCP = Underdrain Collection Pond	Q2 = Apr-Jun
p = production well	SW = Impacted Stormwater Impoundment	Q3 = Jul-Sep
spg = spring	Suite C Tot. = Total Concentrations for Suite C	Q4 = Oct-Dec
sp = seep	M/S-# = Measuring/Sampling Point	
Tnk = tank	OPSDA = Open Pit Surface Drainage Area	
	AOPHC-= Area of Open Pit Hydrologic Containment	

Figure 1 – Authorized Mine Unit Footprints

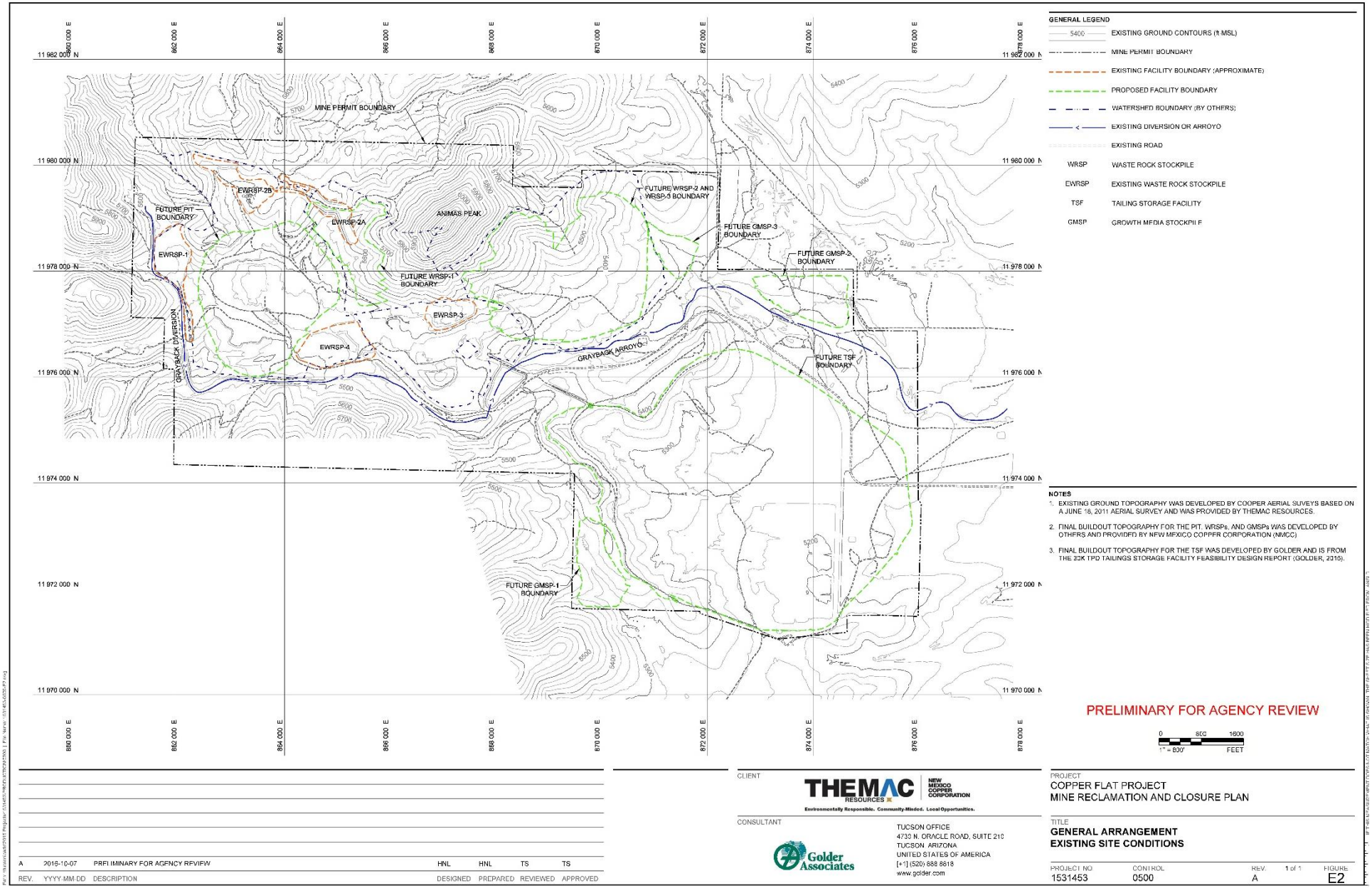


Figure 2 – Ground and Surface Water Sampling Locations

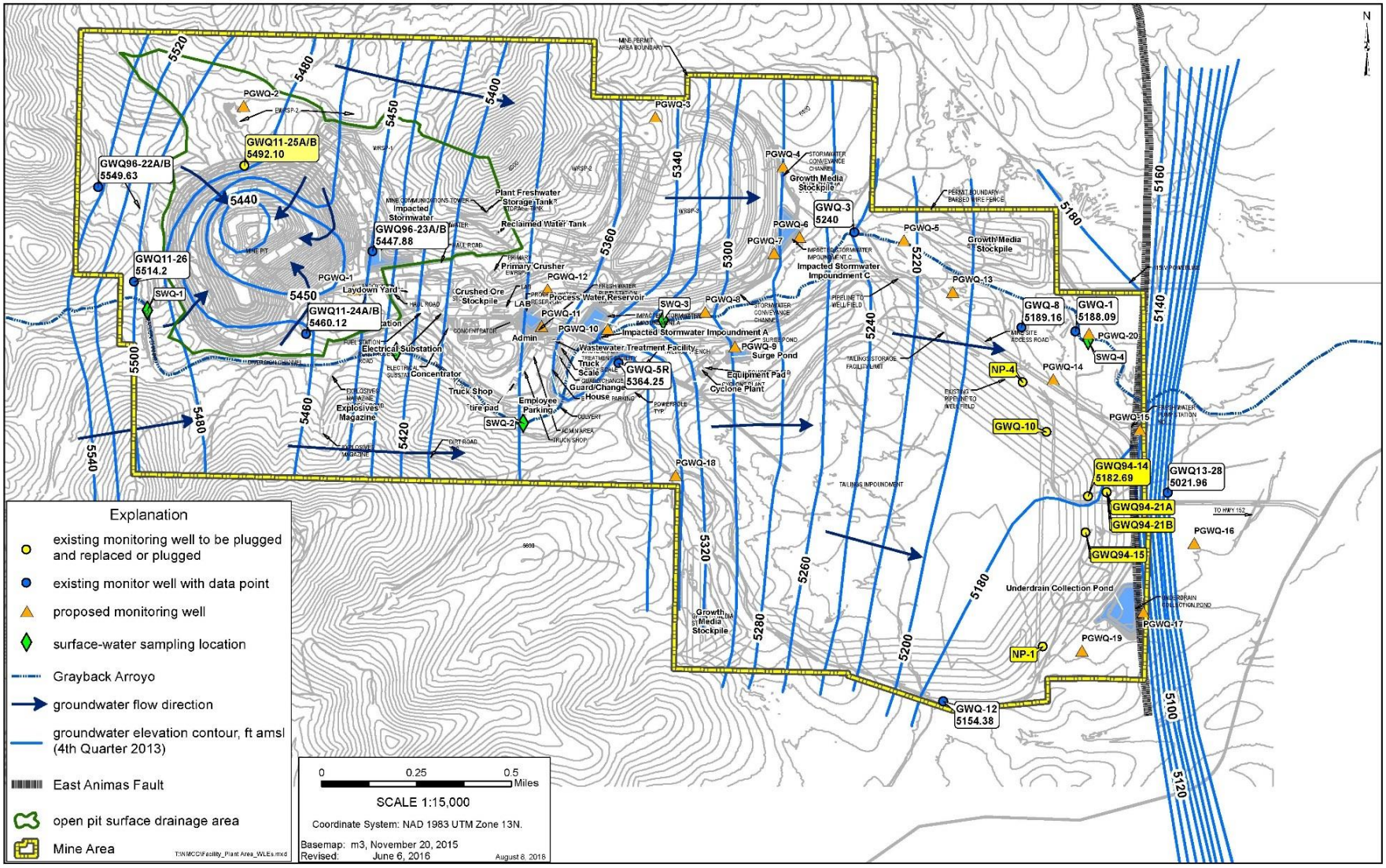
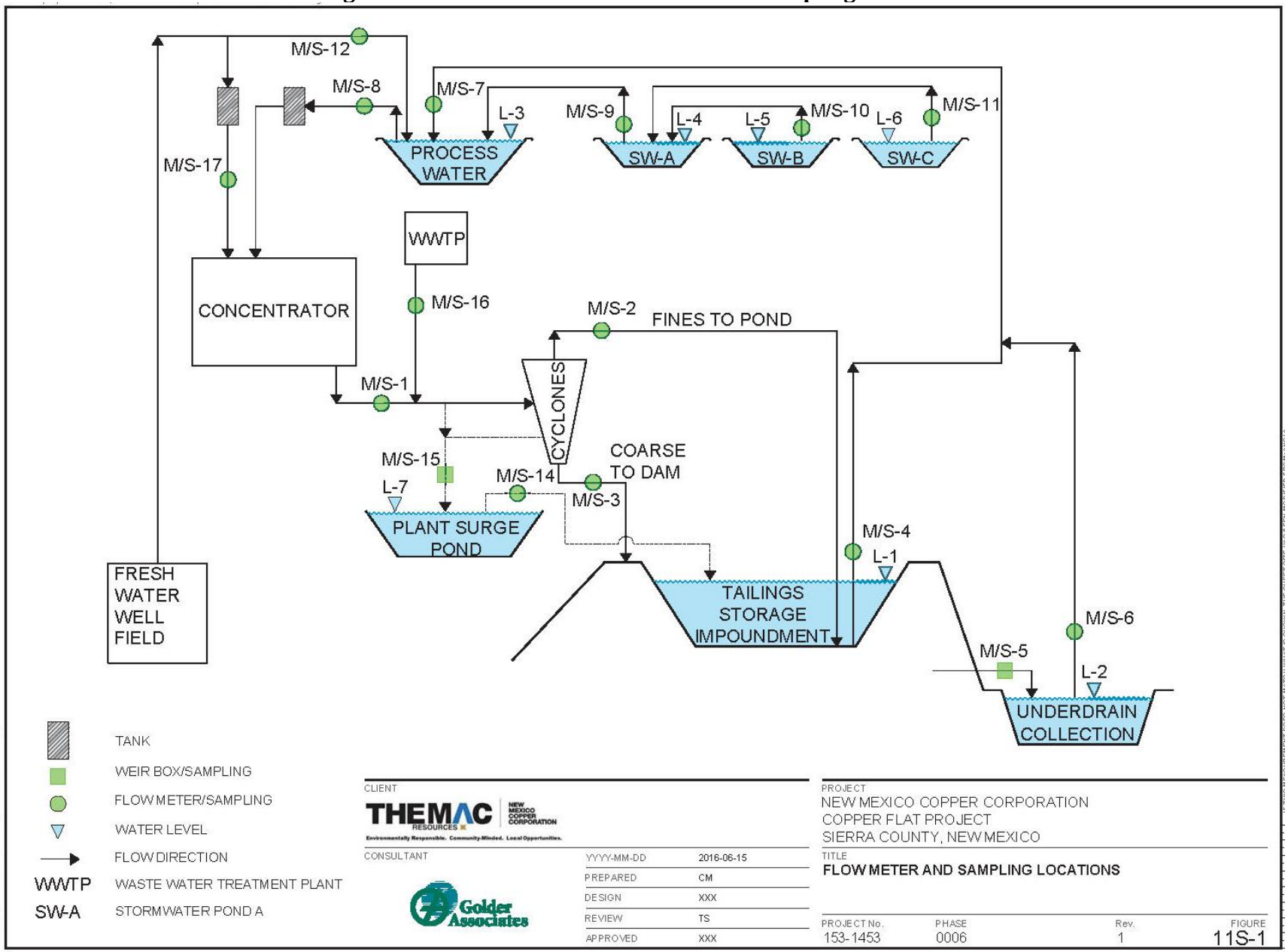


Figure 3 – Flow Meter and Process Water Sampling Locations



From: Deborah Brandt
To: Reid, Brad, NMENV
Subject: Copper Flat Mine
Date: Thursday, September 13, 2018 2:10:21 PM
Attachments: copper flat mine.docx

September 13, 2018

Deborah Brandt

502 W. Hadley Ave

Las Cruces, NM 88005

Dear Brad Reid,

I have property in Kingston, NM and regularly stay there.

The draft proposal for the Copper Flat Mine should be denied for a number of reasons. There is inadequate characterization of the bedrock. Mine pollutants would probably not be adequately contained to prevent groundwater pollution.

Water quality standards are not relevantly addressed, and the proposed groundwater monitoring wells are inadequate.

The discharge permit, authorizing up to 25.3 million gallons per day of potentially polluted wastewater is wholly unacceptable. The impact on streams, humans, wildlife and endangered species could be seriously affected by contamination; even the potential risk is unacceptable.

The amount of water needed for the mines use is staggering to even consider in our arid climate. Pumping our precious water resources would adversely drain and damage our ecosystem, local streams, and the Rio Grande. Not acceptable.

NMCC is not a trustworthy steward. They have been cited for numerous violations.

There is no guarantee that the mine would meet the Water Quality Act, and in this time of loosening environmental regulations, I do not trust that any serious enforcement would occur if NMCC failed to comply.

I do not want transport trucks on highway 152. The highway was not built for that kind of traffic.

All things considered as a resident and taxpayer in Sierra County I strongly oppose a permit for Copper Flat Mine.

Thank you,

Deborah Brandt

From:	Fiona Van Reisen
To:	Reid, Brad, NMENV
Subject:	New Mexico Copper Flat Mining -horrid idea
Date:	Sunday, September 16, 2018 3:34:10 PM

Mr Reid,

Please do not go to your grave knowingly allowing this wrong to the environment. It's a lose lose and there's no coming back.

Got a conscience? It will hurt many people as well as ruining the landscape.

Please consider yourself as able to stop a wrong.

Fiona van Reisen

From:	Max Yeh
To:	Baca, John, NMENV
Cc:	Reid, Brad, NMENV
Subject:	NMED Hearing on Discharge Permit 1840
Date:	Monday, September 17, 2018 11:06:28 AM
Attachments:	BEFORE THE NEW MEXICO SECRETARY OF ENVIRONMENT.pdf

Dear Mr. Baca,

Being unable to attend the hearings on Discharge Permit 1840 on the week of September 24th in Truth or Consequences, I am hereby submitting by attachment my comment to be entered into the record of the hearing.

Thank you.

Max Yeh

BEFORE THE NEW MEXICO SECRETARY OF ENVIRONMENT

IN THE MATTER OF THE HEARING ON THE APPLICATION FOR DISCHARGE PERMIT 1840 BY NEW MEXICO COPPER CORPORATION TO DISCHARGE MINING TAILINGS AND OTHER WASTE WATERS AT COPPER FLAT MINE	**DOCKET NO. 8WB-18-06 (P)**

Max Yeh's Comment in Opposition to DP 1840

I am a 30-year resident of Hillsboro, New Mexico, where Copper Flat Mine is located, and I am opposed to the granting of Discharge Permit 1840 authorizing New Mexico Copper Corporation to discharge "25,264,000 gallons per day" of mining wastewater, which "may contain water contaminants or toxic pollutants elevated above the standards of Section 20.6.2.3103 NMAC," and which "may move directly or indirectly into ground water of the State of New Mexico" at the Copper Flat Mine site. [GWQB, Draft Discharge Permit 1840.]

I ask the Secretary not to grant the Permit for the following reasons:

The Discharge Permit DP 1840 should not be granted because the application for a Discharge Permit is frivolous.

A. It is frivolous because the applicant, New Mexico Copper Corporation [fully owned subsidiary of THEMAC Resources Group Ltd.], does not have the financial means to construct and operate Copper Flat Mine.

1. In its June 2017 audited financial statement, NMCC's parent company Themac Resources, shows a cash balance of $128,471 (cad), a liability of $83,807,040 (cad), no visible signs of income, and the auditor, Davidson and Co., LLP, opined without qualification:

a. "Without qualifying our opinion, we draw attention to Note 1 in the consolidated financial statements which describes conditions and matters that indicate the existence of a material uncertainty that may cast significant doubt about THEMAC Resources Group Limited's ability to continue as a going concern."

2. Not having the financial means to develop the mine, none of the conditions of the permit can be fulfilled.

B. The application is frivolous because the applicant, NMCC, does not have sufficient water rights to operate the mine according to its MORP or to reclaim the mine upon closure since the reclamation of the pit depends on more water than it can access.

1. The Expedited *Inter Se* suit within the Lower Rio Grande Adjudication adjudicating the water rights claims of NMCC and Harris Gray and William Frost, owners at the time of the water rights NMCC intends to use for mining Copper Flat Mine, granted a total of 861.84 afy for mining operations. See the Subfile Orders and Judgments for Subfiles LRO-28-008-9009 and LRO-28-008-9010 in the Lower Rio Grande Adjudication, 2/28/18. As of August 1, 2018, NMCC is full owner of those rights.

2. NMCC claims to need over 6,000 afy to operate. It has sufficient water rights to operate less than 2 months every year.

3. Reclaiming the pitlake requires 2,200 to 2,800 af of water. It will take 2.5 to 3 years to backfill the pitlake, making it a slow and not rapid refill. Since this type of reclamation of the pit allows NMCC to avoid contouring the steep pit walls to a reclaimable slope angle, the speed with which the pit is filled is crucial to avoiding pit wall deterioration. The advantages of a water reclamation are lost and may not be beneficial to the environment. Without an idea of how much water might be available, there is no way to estimate the benefits of a water filled pit as compared to some other reclamation of the pit.

C. The application is frivolous because Copper Flat Mine is a marginal mine which can operate profitably only under extremely rare conditions, so that NMCC's 11-year plan of operation has no merit at all.

1. Copper Flat ore is very low quality ore, containing roughly half as much copper as the ore at Chino near Silver City and about 1/5 the quality of average copper ores around the world. Therefore, mining Copper Flat is comparatively expensive and extremely vulnerable to copper prices and other fluctuating economic conditions. NMCC's feasibility studies show a need for $3.00/lb copper prices to operate profitably. But average copper prices in the last 118 years is $2.50/lb and no 11-year period in history has ever seen copper prices, corrected for inflation, continuously above NMCC's needed $3.00/lb. Therefore, it is extremely unlikely Copper Flat Mine will be in operation for any sustained period of time.

2. If 11 operative years cannot translate into 11 continuous years of mining, then all the calculations for reclamation are mistaken. Projections of pitlake water quality are erroneous. TSF reclamation calculated to be complete in the 39th year will be wrong. All calculations need to be done for an extended and intermittent period of mining.

The Secretary should not grant permits to frivolous applications because doing so harms the public welfare.

A. The corporate and financial organization of NMCC ensures that NMED will be working on this permit endlessly because NMCC seems to be part of a system created to lose money for tax benefits. It is returning 9% tax benefit to its Australian owner for money expended to permit Copper Flat Mine. Meanwhile, this frivolous application is a sinkhole for taxpayer money and the energies of NMED.

1. NMCC is a wholly owned subsidiary of Themac Resources, a Canadian registered company owned by Kevin Maloney, one of the richest people in Australia. Themac Resources has

no income. It and NMCC spend money on loan from Kevin Maloney's Tulla Resources. The loan carries a contractual interest of 20%, a usurious rate in some states. Themac Resources cannot pay the interest on the loan, so 20% of the loan every year can be deductible from Mr. Maloney's taxes as an unmitigated loss. See Themac Resources's website for verification. The highest tax bracket in Australia is 45%. Therefore, the deduction is worth a 9% savings on taxes in that bracket. This is a fine permanent investment for which the real costs are paid by New Mexico tax payers and the work of all the federal and state agencies involved.

a. The unpaid 20% interest is carried on Themac Resouces's financial statements as an accumulating increase of debt, from $34 million (cad) in 2013 to over $84 million (cad) at the present, a debt not taken into account in the 2013 Definitive Feasibility Study and thus making that study rather unreliable. But even that optimistic but now obsolete study (see Section 22.11 and Table 22.7) shows the operating mine's Net Present Value, a balance of costs and income, dropping to 0 when the copper price drops to $2.24 per pound as demonstrated by Professor Lloyd Barr in his comment to the BLM on the Draft EIS. Considering the ongoing 20% interest simply pushes that value higher, making economic feasibility less likely.

B. While granting the permit seems to cause no harm if no mining occurs, it makes the Copper Flat Mine marketable, and it is not the function of NMED to expend its time, resources, and energy, not to mention taxpayer money, increasing the value of private property. The state's Constitution forbids the state from selectively enriching private individuals, and the Water Quality Act, NMSA 74-6, does not authorize NMED to issue a discharge permit to increase the worth of a defunct copper mine.

1. Since NMCC filed the application for a Discharge Permit knowing it did not have either the financial means or the water rights to operate a mine, the application's intent is questionable. Since Themac Resources has been actively trying to sell the mine for some years [see Themac's press release on its website announcing the Letter of Intent to sell the mine to a Chinese company in 2016], the knowingly frivolous application must be considered a means of marketing the mine. Granting the Permit, therefore, turns the Permit into itself a commodity, setting a pernicious precedent.

C. Granting the Permit without actual operation also continues indefinitely the delay in mitigating the groundwater contamination which has been unabated for decades as a result of the previous mine operation.

D. Even though New Mexico law does not have a "can and will" rule, it is recognized that applicants for permits from governmental agencies need to apply in good faith. Colorado expresses its understanding that frivolous applications are a public harm by requiring applications for water rights to make a proper showing of the intent and ability to carry out a water project, and that the project "will be completed with diligence and within a reasonable time." [15 C.R.S. 1990 §37-92-305 (9)(b)] Nothing prevents the Secretary from applying a similar criterion for preventing waste and favoring efficiency.

1. Statements in the application which claim the mine will operate 11 years or that the mine will fast-fill the pit at reclamation are deliberate misrepresentations of reasonable expectations. The application can be denied on that basis by law. And given the company's financial situation, at the least, the Secretary should require a Disclosure Statement according to NMSA 74-6-5.1A.

The Permit should be denied because of internal flaws.

A. NMCC's fast-fill method of reclaiming the pitlake violates the New Mexico Constitution, wherein (XVI, 3) the right to use water is **limited** to beneficial use. To use approximately 2,800 af of water to avoid having to reclaim the steep pit walls or to properly reclaim the pit by earthen refill or to avoid regulatory standards of pollution is not beneficial use of water. To create a large, chemically polluted body of water is not a beneficial use of water. To waste this much water – when the 2018 Draft New Mexico State Water Plan cites insufficiency of water supply as the major water problem the state faces and the 2016 Regional Water Plan for Socorro and Sierra Counties documents this insufficiency in coming years for Sierra County where the mine's located – will irrevocably harm the people's welfare and violate the public's interest, the water being permanently lost through evaporation. If the water were used to dilute polluted water so that it could be used beneficially, the filling of the pitlake might be allowed, but here the dilution is temporary, and eventually the pitlake will be polluted, as is the present pitlake.

1. Justifying this wasteful use of water as part of the beneficial use of mining has no lawful merit. First, the use is post-closure, after productive mining has ceased. Second, and more important, the usage is peripheral to actual productive use, a distinction defined in numerous court cases. In *State ex rel. Martinez v. McDermett*, 120 N.M. 327, § 13, the New Mexico Court of Appeals distinguishes productive agricultural use – meaning to grow crops - from peripheral uses such as using water to soften land to prepare it for plowing. The same distinction is made in *Hennings v. Water Resources Dep't.,* 622 P. 2d 333 (Or. 1981). In *Blaine County Inv. Co. v. Mays*, 291 P. 1055 (Idaho 1930), the court decided that to preserve soil moisture by using water during the winter to form an ice cap over the soil was not a beneficial use of water but a waste. In *Joslin v. Marin Mun. Water Distr.,* 429 P. 2d 889 (Cal. 1967), the Supreme Court of California sitting in bank declared the use of water at a mine to transport gravel and sand was an unreasonable and unlawful form of beneficial use of water. The denial of peripheral uses of water as beneficial use has a solid base recognizable in New Mexico. See *United States v. Alpine Land and Reservoir Co.*, 697 F. 2d 851, 854 (9th Circ. 1983) ("We do not deny or overlook the differences in water law among various western states. However on the point of what is beneficial use the law is 'general and without significant dissent.'") (citing 1 Waters and Water Rights § 19.2 (R. Clark ed., 1967).

2. Before proceeding to permit, the NMED should seek an opinion from the legal branch of the OSE as to the legality of wasting water in New Mexico.

B. NMCC had originally planned to divert impacted storm water into the tailing pond, but now the impacted storm water is to be kept in three impoundments (SW-A, B, C) and the water used in processing (see Draft Permit, fig. 3). NMCC does not have any rights to use surface water. This aspect of the Permit violates NM water law.

C. Because HDPE is considered only resistant and not proof against water penetration, all normal use of HDPE liners includes an under-drain system and a detection system underneath the primary liner. However, the design of the tailings pond (TSF) moves the drainage system above the HDPE liner. The change violates NMAC 20.6.7.22A(4)(d)(v) requiring a "tailings seepage collection system." The above liner system is simply to recover water for reuse and does not protect against contaminant penetration into groundwater. It is not an "under drain."

1. Using a gravel bed for the liner in the TSF instead of a compacted clay bed allows leakage (expected) to leach into the ground. The Copper Rule, then, requires the use of a surround of wells and pumps to pump contaminated groundwater back to the tailings pond. NMAC 20.6.7.22A(4)(c) on interceptor system.

a) Since the TSF area is already contaminated, the Copper Rule mandates the use of an interceptor system from the inception of the use of the TSF.

b) NMED needs to see the design of that system, the number, depth, and location of wells, the studies that show that the wells will recover all the contaminated water moving, and most importantly, proof that NMCC has the water rights to pump the groundwater in sufficient quantity to make the interceptor system work.

D. Monitoring wells for the TSF are insufficient on the south side, where between GWQ-12 and PGWQ-19 is a gap of 1/3 mile.

E. The center-line construction method for the TSF dam is a compromise and not the Best Management Practice. As with the upstream construction method, the upstream side of the dam has no solid base but rests on old tailings, and neither the stability analysis nor the subsidence study covers that weakness.

F. The avoidance of NMAC 20.6.2.3101pollution standards and federal pollution standards in the future pitlake by building a ledge of BLM property so that the water is kept entirely on private land is mere trickery and should be responded to as trickery.

1. The ledge of BLM property will be 3 feet above the equilibrium level of the future pitlake. But a 100 year storm event of 3.73 inches in 24 hours will raise the pitlake level over 3 feet (using a run-off area of 306 acres) and a storm event 3 times that (the safety factor used for the TSF) of 26 inches in 72 hours, will raise the lake level by 31 feet and not evaporate off for 6 months or more. The larger numbers are justified by the fact that the pitlake will be there ad infinitum, and thus experience many 100 year storms and more. The pitlake, therefore, cannot be permanently exempt from either federal or state pollution standards. See NMSA Water Quality Act 74-6-12C. And, even when there is not an exceptional storm event the effects of 22 acres of polluted water are not confined to private property because of the effects on wildlife, so that the state's exemption does not apply.

G. The pitlake is also allowed exemption from NMAC 20.6.2.3101 pollution standards because it will be a "hydrologic evaporative sink" by 20.6.7.33D(1). But this is not necessarily so. The present pitlake has been there for 35 years, and with a calculated evaporation of 34.45 afy, it should be dry by now if evaporation were <u>greater</u> than inflow (the legal definition). Obviously the water has reached an equilibrium level at which inflow <u>equals</u> evaporation. It is by legal definition (which is not necessarily a hydrological definition) not to be considered a hydrological evaporative sink since evaporation is <u>not greater</u> than inflow. Since the future pitlake is conceived to also be at an equilibrium level, it also will not fit the legal definition of an evaporative sink, and further, whenever the humidity is high and evaporation low or whenever it rains, that evaporation will be less than inflow. That is to say, equilibrium level for the future pitlake is based on annual averages of

precipitation and evaporation rates. Actual levels vary from day to day, and similarly, whether evaporation is greater than inflow varies also.

1. Reclamation of a mining pit by backfilling with water is not a normal procedure in mining. Treating the pitlake as an evaporative sink has been tried in West Australia, but not in the way planned by NMCC. The pit is first earth filled to a level below the equilibrium level of the evaporative sink, and then the water is introduced to the equilibrium level. In West Australia, as in New Mexico, water is too precious to use for a complete backfill of the pitlake. NMCC's plan is wasteful of water. See Exhibit I, Clinton Mccullaugh, Genevieve Marchant, Jorg Unseld, Michael Robinson, Benjamin O'Grady, "Pit Lakes as Evaporative 'Terminal' Sinks: An Approach to Best Available Practice Mine Closure," Edith Cowan University, ECU, 2012 (online) (originally published in Proceedings of International Mine Water Association (IMWA) Symposium 2012, pp 167-174). In the United States, backfilling the pit with earth to the original contours is required of all coal mines regulated by the federal rules. All hardrock mines in California are required to backfill pits with earth at reclamation. Many contemporary mines backfill the pit with earth at closure. Proper reclamation of the pit should be backfilling with earth rather than water.

H. The Existing Waste Rock Stockpile-1, at the west side of the pit, is to be removed and water from that area channeled to Greyback Arroyo, but this rock pile has been leaching contaminants for over 35 years. After removal of the pile, the contaminants will be drained into a naturally intermittent stream. This contamination of surface water is not permissible.

I. The Permit cannot be approved without an adequate Reclamation Plan. The submitted Reclamation Plan does not address the following issues:

1. Since the TSP area is already contaminated from mining 36 years ago, the Copper Rule mandates an interceptor system from initiation of mining. How will this system operate after closure? Will monitoring at the monitoring wells below the TSP be continued at the same frequency?
2. If an interceptor system is not in place at closure, who will construct one if the monitoring detects contamination below the TSP dam during active evaporation?
3. Once the HDPE liner is ripped, will monitoring continue below the TSP. How will contamination plumes thereafter be mitigated? Who will do the work and who will pay for it?
4. While application projects no contaminants in the pitlake, there is some doubt about this, especially since the pitlake is left as a permanent feature of the landscape. Should it become contaminated (and twice the present pitlake has become naturally acidic, due probably to rainfall), what will be the mitigation? In 100 years? Is this left to the NMED to handle?
5. Proposed sureties do not seem to imagine or to cover expenses for any possible complexities. Who will pay for them, since fines for groundwater contamination are limited to $10,000 per day, hardly sufficient for a major cleanup.

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EXHIBIT I

2012

Pit lakes as evaporative 'terminal' sinks: an approach to best available practice mine closure

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Pit lakes as evaporative 'terminal' sinks: an approach to best available practice mine closure

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Abstract

Pit lakes may form when open cut mining operations extend below groundwater level and then fill at cessation of mining and associated dewatering operations by ground and surface water influx. Pit lake hydrogeology may function as an evaporative "sink" when pit lake water evaporation rates exceed influx rates. Although not ideal closure, management of local surface and groundwaters contaminated by Acid and Metalliferous Drainage (AMD) through entrainment toward an evaporative terminal pit lake may provide a best-case scenario for protection of regional water resources required by typical mine closure time scales of hundreds to thousands of years.

We present two case studies from Western Australia; the first where closure of above ground landforms such as waste dumps by covers would arguably not be successful over long terms (1,000 years or more) and another where Potentially Acid Forming waste (PAF) management is limited by current waste rock dump location and suitable cover materials.

Pit lake water balance modelling indicates both case study pit lakes will function as hydraulic sinks if they are not backfilled above their equilibrium water levels. A best closure outcome for these pit lakes may be to be backfilled with PAF encapsulated with alkaline/neutral waste and then filled as rapidly as possible to minimise PAF oxidation and ensure an evaporative sink pit lake is formed.

Keywords: backfill, groundwater sink, closure, pit lake, AMD, through-flow, evaporative sink

Introduction

Due to operational and regulatory practicalities, pit lakes will continue to be common legacies of mine lease relinquishments. Pit lake water quality is often degraded by Acid and Metalliferous Drainage (AMD) which may lead to acidic water with elevated metal concentrations (McCullough 2008). Degraded water quality reduces pit lake environmental values and may present risks to surrounding communities and environmental values (McCullough and Lund 2006). Mine closure guidelines and standards increasingly require chemical safety and low risk to surrounding ecosystems for long-terms for closure practices to be acceptable (ANZMEC/MCA 2000; ICMM 2008; DMP/EPA 2011).

Unplanned or inappropriate management of these novel geographical features can lead to both short- and long-term liability to mining companies, local communities, the government and the nearby environment during mining operations or after lease relinquishment (Doupé and Lymbery 2005).

Nevertheless, most developed jurisdictions are consistent in their requirement for mining companies to plan and/or rehabilitate to minimise or prevent entirely any potential deleterious effects of the pit lake water body on regional ground and surface resources (Jones and McCullough 2011). The focus of most general or *ad hoc* pit lake regulation is given to protecting human and ecological communities from effects of the pit lake. For example, in Australasia, closure guidelines are based on ANZECC/ARMCANZ (2000) criteria; generally for ecosystem protection requirements. Such guidelines generally emphasize either a demonstration of null-negative effects of the lake or require management to achieve the required level for compliance (Kuipers 2002). AMD treatment may be very costly and difficult to achieve in many remote mining regions. As a result, sustainable pit lake management aims to minimise short and long term pit lake liabilities and maximise short and long term pit lake opportunities (McCullough et al. 2009).

Pit lake water balance in an arid climate

Climate is the single most important factor on the hydrologic processes associated with a pit lake (Castendyk 2009). Changes in climate (e.g. temperature, rainfall, wind, precipitation amount and distribution) will affect the individual hydrologic components differently. In general, surface hydrologic processes (e.g. direct precipitation, evaporation, surface water runoff) are defined by regional climate. Groundwater inflows are generated from precipitation recharge and tend to buffer short-term climatic changes, but long-term climatic changes will be reflected in groundwater inflows over the long-term. Modelling of groundwater and climate processes is often used to predict final water balances in pit lakes (Vandenberg 2011).

Post-closure pit lakes in an arid environment are typically classified as either "through-flow" lakes or "evaporative sinks" (Niccoli 2009). Evaporative sinks may occur in arid climates where the evaporation potential is higher than average rainfall runoff. During groundwater cone-of-depression rebound and pit void filling, the pit lake water level rises to a level where inflows (rainfall, runoff and groundwater inflow) are in equilibrium with evaporation losses. Hence, pit lake water level does not rise to levels higher than adjacent groundwater levels and water is not released to the environment (Figure 1). The water quality of evaporative sink lakes is expected to show increases in acidity, metals and salt concentrations over time through accumulation of solutes introduced through groundwater inflows, surface catchment run-off and direct rainfall to the developing lake's surface.

Backfill is often recommended to avoid many issues associated with poor pit lake water quality developing from weathering of PAF material in the pit void and pit lake walls (Puhalovich and Coghill 2011). If backfill volumes and distributions are small enough to permit accumulation of water above the backfill, then this use of the pit void as a waste rock or otherwise dump will remove these waste materials

from the typically higher rates of weathering and transport encountered when placed above ground. However, the pit backfill volumes and/or placement will cause pit lake surface area reductions and alter the pit lake hydrological balance. Decreased net evaporation may then lead to the pit lake changing from a evaporative sink lake to a through-flow type. If the water quality in the pit lake is poor, this contaminated water may be released into the environment through seepage into the regional groundwater system.

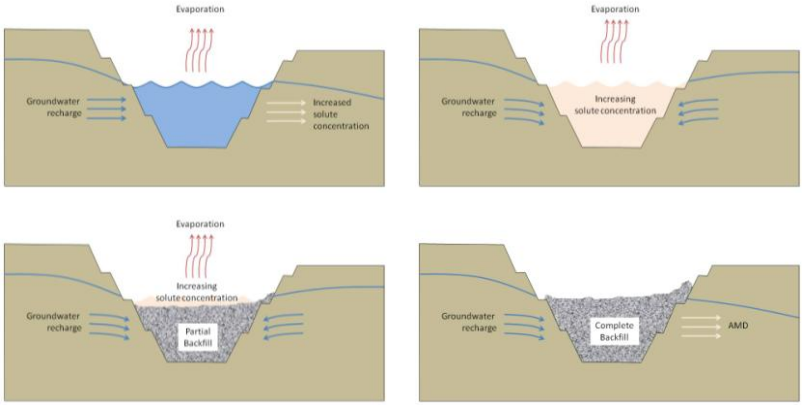

Figure 1 *Generalised potential hydrogeological regimes for pit lakes in an arid region.*

Case studies

Although there are many examples for successful dumping of mine waste under wet covers or at the bottom of pit lakes (Schultze et al. 2011), we present two case studies from semi-arid and arid Western Australia that will be relevant to many other arid/semi-arid parts of the mining world e.g., south-west US, South Africa, etc. (Figure 2). Both operations are currently working towards development of detailed mine closure plans but face difficulties with Potentially Acid Forming waste (PAF) management in above ground waste landforms where armouring and waterproof waste cover materials are lacking in their regional environments which instead primarily consist of highly dispersive clays and sand. Geochemical testing indicates both pit lakes are likely to develop AMD affected water quality over time.

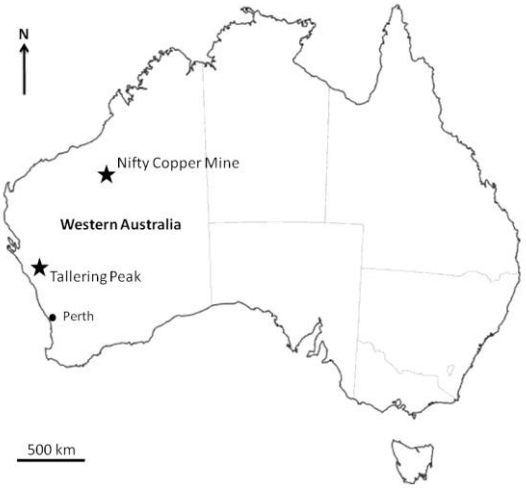

Figure 2 *Location of case studies in arid Western Australia.*

Both operations' pits are expected to fill with water naturally when pit dewatering ceases at closure due to the accumulation of groundwater inflow and rainfall, however, the equilibrium lake elevations depend on the hydrogeology setting and the long-term climatic characteristics in the region. Total inflows into the pit lakes are expected to gradually decrease as the open pits fill while total outflows are expected to increase due to increased evaporation from an increasing lake area. At some stage, total inflows would approximate total outflows and the water level in each open pit will reach equilibrium, albeit responding dynamically to changes seasonal precipitation and evaporation rates. Water level fluctuations are expected as a result of occasional cyclones.

If the steady-state pit lake elevation remained lower than the surrounding groundwater surface, the pit lakes will remain an evaporative sink within the confines of the open pit with no water release into the environment through groundwater decant. However if the final pit lake elevations reach the surrounding groundwater level, the pit lakes would turn into a through-flow system with water release to the environment through groundwater seepage which could than spread potential contaminant plumes to environmental receptors.

Modelling

A water balance model for each of the closure scenarios was then modelled using the GoldSim Monte Carlo simulation software package. Golder assessed three post-closure scenarios for both of the case-study open pits: pit not backfilled and a pit lake forming, pit partially backfilled to below pre-mining groundwater levels with consequently shallower pit lake forming; and, pit backfilled to above water table, no pit lake forming.

Pit lake hydrological inflows were defined as direct rainfall, groundwater inflow and run-off (catchment and pit walls). Outflows were defined as evaporation from

lake surface, groundwater seepage (if any), and overflow (if any) and climate change predictions were accounted for (**Figure 3**).

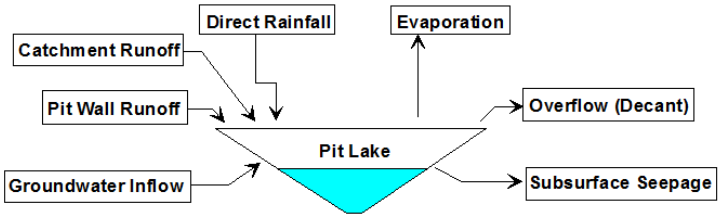

Figure 3 *Conceptual pit lake process flow diagram.*

Nifty Copper Operation, Aditya Birla

Nifty is located in the Pilbara region of Western Australia approximately 1,200 km nor-north-east of Perth (Figure 2). The Pilbara experiences an arid climate with two distinct rainfall patterns. In summer, rainfall occurs from either tropical cyclones or thunderstorms, while the winter rainfall is typically from low pressure trough systems. Average annual rainfall is low and varies in the region from 200 mm to 420 mm (Kumar et al. 2011; Kumar et al. 2012) .

The open pit scenario with no backfill was identified as an evaporative sinks. The partially backfilled scenario shows that the equilibrium water level would be more than 10 m higher than the elevation of the backfill material which would then be submerged at pit lake water level equilibrium. The partially backfilled scenarios was identified as developing an evaporative sink. The fully backfilled scenario indicated that the pit would become a through-flow system with water contained in the pit will seep into the groundwater system. If the PAF material already contained in the pit leached chemicals harmful to the environment, this closure option may be present a significant risk at mine closure.

A partially backfilled option was based on the proposed volume of backfilled material provided by the mining company at the time which would reach an expected elevation. This model showed two main consequences to site AMD management at mine closure if the pit was backfilled above equilibrium groundwater level:

1. Reduction in evaporative losses from the absence of pit lake forming would likely lead to a through-flow scenario where groundwater quality would likely be strongly influenced by the geochemistry of pit backfilled material. As the proposed material was predominantly containing PAF, it is therefore likely that water quality would be impacted by AMD as it flows through the pit waste backfill. Due to the through-flow nature of the backfilled pit, the water would then be released to the environment through groundwater seepage, leading to increased risk of negative effects on local and possibly regional groundwaters.
2. If waste landforms are not provided with an effective cover system to reduce infiltration and if the pit lake did not form due to groundwater levels after cone rebound remaining below final pit void backfill surface levels, then this may

also affect the transport of contaminants arising from other above-ground waste landforms. In this scenario, AMD leachate from waste rock dumps containing PAF would enter the vadose zone (area of unsaturated ground above the water table) but would not be transported in the local groundwater plume toward the groundwater sink lake. Instead the AMD plume would be transported by the regional groundwater system and potentially surface water receptors such as groundwater dependant ecosystems of seasonal lakes, creeks and wetlands.

Tallering Peak Iron Ore Mine, Mount Gibson Mining

Tallering Peak iron ore mine is located in the semi-arid Midwest mining region of Western Australia (Kumar et al. 2012), approximately 300 km north of Perth. The Tallering Peak Operation commenced production in 2004 and is predicted to continue operations until 2013.

A partially backfilled option for the T5 pit was based on a proposed volume of backfilled PAF material and assumed the backfill material would be placed in the bottom of the pit and not end dumping from the edge of the pit. After closure, the partially backfilled mine void is expected to fill mostly through groundwater inflows. The final pit lake would be above the backfill, covering the PAF material. Oxidation rates of the PAF material might then be significantly reduced because of the much lower oxygen diffusion rates through water. A final evaporative sink would also entrain AMD contaminated waters away from sensitive environmental receptors such as a nearby ephemeral creek which flows into the Greenough River.

Based on the results of the above analyses, the open pit with no backfill and the partially backfilled scenarios were identified as likely evaporative sinks. The fully backfilled scenario was predicted to be a through-flow system and would therefore be likely to introduce AMD into the groundwater system. While an evaporative sink is unlikely to introduce leachable compounds into local groundwater system, a through-flow system from up-gradient to down-gradient toward a seasonal creek line in the south-west is probably. Furthermore, there was only 5% chance after 35 years that the fully backfilled pit water level would rise high enough to decant to nearby surface waters.

Conclusions

Mine closure is increasingly recognised as a whole-landscape development exercise which must take into account all closure landform elements and how they will interact over time (McCullough and Van Etten 2011). Both of these case studies present strong arguments that completely backfilled pit may not be the best solution to risks presented by pit lakes at mine closure, when long-term effects of climate and above ground closure landforms risks are also considered.

The water quality of evaporative sink lakes is expected to deteriorate over time through evaporation and the consequent entrapment of solutes. Although not desirable in itself, this water quality deterioration indicates that the pit lake is functioning as it should as an evaporative 'terminal' sink and protecting the surrounding environment from AMD (acid and metalliferous drainage) contaminated waters resulting from waste rock dumps.

In the long term, increasing solute concentrations in the evaporative sink pit lake may result in increasing water density. This concentration change may cause density-driven flow into the surrounding groundwater under certain hydrogeological conditions and should be investigated as part of the risk assessment process for this closure strategy.

Stability of physical and chemical conditions inside the deposited waste and at its interface with the lake environment is the main prerequisite for successful long term storage of waste in a pit lake (Schultze et al. 2011). As such, climate change should be a key consideration in the use of pit lakes 'sacrificially' as evaporative sinks. For example, an increasingly wet climate may lead evaporative sink pit lakes to become through-flow or decant to the environment through other means such as over flow. Similarly, even though mean net precipitation may not change or even decrease in a predicted drying climate, an increase in intense rainfall events such as cyclone frequencies may lead to mobilisation of degraded pit lake waters to the surrounding regional groundwaters following such events.

In conclusion, although proposed as best practice by a number of regulatory and sustainability organisations, fully or partially backfilled pit may sometimes potentially lead to poorer closure outcomes than retaining a pit lake. This example demonstrates both the need for mine closure planning to be considered site-specific and on a case-by-case basis as well as for closure strategies to be founded on good empirical evidence of which water balance and geochemical modelling will be key considerations.

Acknowledgements

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