

**LANDER COUNTY COMMISSIONERS MEETING  
TOWN BOARD OF BATTLE MOUNTAIN & AUSTIN  
BOARD OF COUNTY HIGHWAY COMMISSIONERS**

August 9, 2018

LANDER COUNTY COURTHOUSE  
COMMISSIONERS' CHAMBER  
50 STATE ROUTE 305  
BATTLE MOUNTAIN, NEVADA

Also Via Teleconference At

AUSTIN COURTHOUSE  
COMMISSION OFFICE  
122 MAIN STREET  
AUSTIN, NEVADA

9:00 A.M      Call to Order  
                 Pledge of Allegiance  
                 A Moment of Silence  
                 **Lander County Commissioners may break for lunch from 12:00pm to 1:15pm**  
                 Any agenda item may be taken out of order, may be combined for consideration by the public  
                 body, and items may be pulled or removed from the agenda at any time.  
                 Commissioners Reports on meetings, conferences and seminars attended  
                 Staff Reports on meetings, conferences and seminars attended

Public Comment - For non-agendized items only. *Persons are invited to submit comments in writing and/or attend and make comments on any non- agenda item at the Board meeting if any, and discussion of those comments at the discretion of the Board. All public comment may be limited to three (3) minutes per person, again at the discretion of the Board. Reasonable restrictions may be placed on public comments based upon time, place and manner, but public comment based upon viewpoint may not be restricted.*

**\*CONSENT AGENDA\***

All matters listed under the consent agenda are considered routine, and may be acted upon by the Board of County Commissioners with one action, without extensive discussion. Any member of the Board or any citizen may request that an item be taken from the consent agenda, discussed and acted upon separately during this meeting. Consent agenda materials are available at the Lander County Clerk's office for viewing and copies are available for a nominal charge.

- \*(1) Approval of August 9, 2018 Agenda Notice
- \*(2) Approval of Amended May 24, 2018 Meeting Minutes
- \*(3) Approval of June 14, 2018 Meeting Minutes
- \*(4) Approval of June 28, 2018 Meeting Minutes
- \*(5) Approval of July 12, 2018 Meeting Minutes
- \*(6) Approval of July 26, 2018 Meeting Minutes
- \*(7) Approval of the Payment of Bills

\* (8) Approval of Payroll Change Requests

**\*COMMISSIONERS\***

- \* (1) Discussion and possible action to approve/disapprove to change the eastern 716.27 feet of APN#010-280-04 and 010-280-06 from farm and ranch district (A-3) to one acre agricultural district (A-1) with a minimum lot size of 2.5 acres, leaving the westerly 610 feet of each parcel zoned as A-3 to create a buffer zone to existing farm and ranch operations, and all other matters properly related thereto.

*Public Comment*

- \* (2) Discussion and possible action regarding policy, procedures, PERS, ratification of the Fire Chief, attendance sheets, and physical fitness requirements for the Battle Mountain Volunteer Fire Department set forth by the Lander County Board of Commissioners, and all other matters properly related thereto.

*Public Comment*

- \* (3) Discussion and possible action regarding participating in a lawsuit as a class member related to Payments In Lieu of Taxes Act (PILT) for FY 15/16/17. Case Nos. 17-739C and 17-1991C (consolidated) Kane County, Utah vs. United States, and all other matters properly related thereto.

*Public Comment*

- \* (4) Discussion and possible action regarding a Scope of Work proposal from Day Engineering to provide design, bid assistance and construction administrative services for the replacement of a retaining wall and backfill above the Austin Visitors Center, and all other matters properly related thereto.

*Public Comment*

- \* (5) Discussion and possible action regarding a Scope of Work proposal from Day Engineering to provide design, bid assistance and construction administrative services for the re-pavement of portions of SR 212, 214 and 215, a total paving project of 12 miles, and all other matters properly related thereto.

*Public Comment*

- \* (6) Discussion and possible action regarding the proposal and reading by Title of Ordinance No. 2018-03 amending Title 2 Chapter 06 of the Lander County code deleting references to an executive director and defining all matters relating to, and to modify the duties and powers of the county manager position, and all other matters properly related thereto.

*Public Comment*

- \* (7) Discussion for possible action regarding the proposal and reading by Title of Ordinance No. 2018-04 amending Title 2 Chapter 07 of the Lander County code deleting references to supervisors and defining all matters relating to, and to modify the duties and powers of the Public Works Director position, and all other matters properly related thereto.

*Public Comment*

- \* (8) Discussion and possible action regarding an employment contract for the Lander County Manager, and all other matters properly related thereto.

*Public Comment*

- \* (9) Discussion and possible action regarding an employment contract for the Lander County Public Works Director, and all other matters properly related thereto.

*Public Comment*

**\*BOARD APPOINTMENTS\***

- \* (10) Discussion and possible action to appoint/reappoint two individuals to serve on the Lander County Economic Development Authority Board with terms expiring June 30, 2020 and to consider the following applicants:
- a) George Fennemore;
  - b) Sarah Edgar;
- and all other matters properly related thereto.

*Public Comment*

**\*FINANCE\***

- \* (11) Update on budget review, contracts, financial update, and all other matters properly related thereto.

*Public Comment*

**\*CORRESPONDENCE**

\*(12) Correspondence/reports/potential upcoming agenda items.

*Public Comment*

Public Comment - For non-agendized items only. *Persons are invited to submit comments in writing and/or attend and make comments on any non- agenda item at the Board meeting if any, and discussion of those comments at the discretion of the Board. All public comment may be limited to three (3) minutes per person, again at the discretion of the Board. Reasonable restrictions may be placed on public comments based upon time, place and manner, but public comment based upon viewpoint may not be restricted.*

**ADJOURN**

\*Denotes "for possible action". Each such item may be discussed and action taken thereon with information provided at the meeting. Action may be taken according to the "Nevada Open Meeting Law Manual" via a telephone conference call in which a quorum of the Board members is simultaneously linked to one another telephonically.

**NOTE: TIMES ARE APPROXIMATE**

This is the tentative schedule for the meeting. The Board reserves the right to take items out of order to accomplish business in the most efficient manner. The Board may combine two or more agenda items for consideration. The Board may remove an item from the agenda or delay discussion relating to an item on the agenda at any time.

**Notice to persons with disabilities:** Members of the public who are disabled and require special assistance or accommodations at the meeting are requested to notify the County Executive Director in writing at the Courthouse, 50 State Route 305, Battle Mountain, Nevada 89820, or call (775) 635-2885 at least one day in advance of the meeting.

NOTICE: Any member of the public that would like to request any supporting material from the meeting, please contact the clerk's office, 50 State Route 305, Battle Mountain, Nevada 89820 (775) 635-5738.

**AFFIDAVIT OF POSTING**

State of Nevada     )  
                                      ) ss  
County of Lander    )

Keith Westengard, Lander County Executive Director of said Lander County, Nevada, being duly sworn, says, that on the 3<sup>rd</sup> day of August, 2018, he posted a notice, of which the attached is a copy, at the following places: 1) Battle Mountain Civic Center, 2) Battle Mountain Post Office, 3) Lander County Courthouse, 4) Swackhamer's Plaza Bulletin Board, 5) Kingston Community Hall Bulletin Board, and 6) Austin Courthouse in said Lander County, where proceedings are pending.



Keith Westengard, Lander County Executive Director

Subscribed and sworn to before me this 3<sup>rd</sup> day of August, 2018.

Witness



Name of Agenda: Lander County Board of Commissioners

Date of Meeting: August 9, 2018



*Cindy Benson*  
*Lander County Fiscal Officer*

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**LANDER COUNTY COMMISSION MEETING**

**August 9, 2018**

**APPROVE**

**Check #107718**

  
Cindy Benson – Fiscal Officer

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# COUNTY OF LANDER

JEREMY ADAMS

DATE	INVOICE	AMOUNT	REMARKS
07/27/18	PRISONER TRANSPORT	58.00	7/30/18

CHECK NO 107718 \$58.00 \*\*

## COUNTY OF LANDER

50 State Route 305  
Battle Mountain, NV 89820  
(775) 635-2573

WELLS FARGO BANK  
BATTLE MOUNTAIN, NV 89820  
GENERAL ACCOUNT

No. 107718

94-7074  
3212

PAY TO THE ORDER OF

JEREMY ADAMS

VOID IF NOT CASHED  
WITHIN 90 DAYS

DATE	CHECK NO.	AMOUNT
07/27/18 **VOID**	107718 **VOID**	\$58.00 **VOID**

\*\*\*VOID\*\*\*\*\*58DOLLARS AND00CENTS\*\*\*

JEREMY ADAMS  
214 E ANTELOPE DRIVE

BATTLE MOUNTAIN NV 89820

NON-NEGOTIABLE

*Cindy Benson*  
*Lander County Fiscal Officer*

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**LANDER COUNTY COMMISSION MEETING**

**August 9, 2018**

**APPROVE**

**Check #107722**

*Cindy Benson*

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**Cindy Benson – Fiscal Officer**

# COUNTY OF LANDER

DEBORAH CARDOZA

DATE	INVOICE	AMOUNT	REMARKS
07/27/18	1807160026	100.00	7/16/18 AUSTIN EMS RUN
07/27/18	1807180033	100.00	7/18/18 AUSTIN EMS RUN

CHECK NO 107722 \$200.00 \*\*

## COUNTY OF LANDER

50 State Route 305  
Battle Mountain, NV 89820  
(775) 635-2573

WELLS FARGO BANK  
BATTLE MOUNTAIN, NV 89820  
GENERAL ACCOUNT

No. 107722

94-7074  
3212

PAY TO THE ORDER OF

DEBORAH CARDOZA

VOID IF NOT CASHED  
WITHIN 90 DAYS

DATE	CHECK NO.	AMOUNT
07/27/18 **VOID**	107722 **VOID**	\$200.00 **VOID**

\*\*\*VOID\*\*\*\*\*200DOLLARS AND00CENTS\*\*\*

DEBORAH CARDOZA  
HC65 BOX 139

AUSTIN

NV 89310

VOID  
NON-NEGOTIABLE

*Cindy Benson*  
*Lander County Fiscal Officer*

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**LANDER COUNTY COMMISSION MEETING**

**August 9, 2018**

**APPROVE**

**Check #107723**



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**Cindy Benson – Fiscal Officer**

# COUNTY OF LANDER

RAUL CEJA JR.

DATE	INVOICE	AMOUNT	REMARKS
07/27/18	PRISONER TRANSPORT	58.00	7/30/18

CHECK NO 107723 \$58.00 \*\*

## COUNTY OF LANDER

50 State Route 305  
Battle Mountain, NV 89820  
(775) 635-2573

WELLS FARGO BANK  
BATTLE MOUNTAIN, NV 89820  
GENERAL ACCOUNT

No. 107723

94-7074  
3212

PAY TO THE ORDER OF

RAUL CEJA JR.

VOID IF NOT CASHED  
WITHIN 90 DAYS

DATE	CHECK NO.	AMOUNT
07/27/18 **VOID**	107723 **VOID**	\$58.00 **VOID**

\*\*\*VOID\*\*\*\*\*58DOLLARS AND00CENTS\*\*\*

RAUL CEJA JR.  
P.O. BOX 1625

BATTLE MOUNTAIN NV 89820

VOID  
NON-NEGOTIABLE

*Cindy Benson*  
*Lander County Fiscal Officer*

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**LANDER COUNTY COMMISSION MEETING**

**August 9, 2018**

**APPROVE**

**Check #107725**

*Cindy Benson*

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**Cindy Benson – Fiscal Officer**

# COUNTY OF LANDER

CHIP COLPITTS

DATE	INVOICE	AMOUNT	REMARKS
07/27/18	1807200021	50.00	7/20/18 AUSTIN EMS RUN
07/27/18	1807200028	50.00	7/20/18 AUSTIN EMS RUN

CHECK NO 107725 \$100.00 \*\*

## COUNTY OF LANDER

50 State Route 305  
Battle Mountain, NV 89820  
(775) 635-2573

WELLS FARGO BANK  
BATTLE MOUNTAIN, NV 89820  
GENERAL ACCOUNT

No. 107725

94-7074  
3212

PAY TO THE ORDER OF

CHIP COLPITTS

VOID IF NOT CASHED  
WITHIN 90 DAYS

DATE	CHECK NO.	AMOUNT
07/27/18 **VOID**	107725 **VOID**	\$100.00 **VOID**

\*\*\*VOID\*\*\*\*\*100DOLLARS AND00CENTS\*\*\*

CHIP COLPITTS  
HC 65 BOX 111

AUSTIN

NV 89310

VOID  
NON-NEGOTIABLE

*Cindy Benson*  
*Lander County Fiscal Officer*

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**LANDER COUNTY COMMISSION MEETING**

**August 9, 2018**

**APPROVE**

**Check #107726**

*Cindy Benson*

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**Cindy Benson – Fiscal Officer**

CORE CONSTRUCTION

COUNTY OF LANDER  
SERVICES OF NV. INC.

DATE	INVOICE	AMOUNT	REMARKS
06/30/18	17-03-002 02 FA-48	75,786.69	6/25/18 BOILERS

CHECK NO 107726 \$75,786.69 \*\*

COUNTY OF LANDER

50 State Route 305  
Battle Mountain, NV 89820  
(775) 635-2573

WELLS FARGO BANK  
BATTLE MOUNTAIN, NV 89820  
GENERAL ACCOUNT

No. 107726

94-7074  
3212

PAY TO THE ORDER OF

CORE CONSTRUCTION

VOID IF NOT CASHED  
WITHIN 90 DAYS

DATE	CHECK NO.	AMOUNT
07/27/18 **VOID**	107726 **VOID**	\$75,786.69 **VOID**

\*\*\*VOID\*\*\*\*\*75,786DOLLARS AND69CENTS\*\*\*

CORE CONSTRUCTION  
7150 CASCADE VALLEY COURT

SERVICES OF NV. INC.

LAS VEGAS

NV 89128

VOID  
NON-NEGOTIABLE

*Cindy Benson*  
*Lander County Fiscal Officer*

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**LANDER COUNTY COMMISSION MEETING**

**August 9, 2018**

**APPROVE**

**Check #107731**

*Cindy Benson*

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**Cindy Benson – Fiscal Officer**

ST OF NEVADA

COUNTY OF LANDER  
DMV & PUBLIC SAFETY

DATE	INVOICE	AMOUNT	REMARKS
06/30/18	TITLE TRANSFER	29.25	WATER BUFFALO

CHECK NO 107731 \$29.25 \*\*

COUNTY OF LANDER

50 State Route 305  
Battle Mountain, NV 89820  
(775) 635-2573

WELLS FARGO BANK  
BATTLE MOUNTAIN, NV 89820  
GENERAL ACCOUNT

No. 107731

94-7074  
3212

PAY TO THE ORDER OF

ST OF NEVADA

VOID IF NOT CASHED  
WITHIN 90 DAYS

DATE	CHECK NO.	AMOUNT
07/27/18 **VOID**	107731 **VOID**	\$29.25 **VOID**

\*\*\*VOID\*\*\*\*\*29DOLLARS AND25CENTS\*\*\*

ST OF NEVADA  
555 WRIGHT WAY

DMV & PUBLIC SAFETY

CARSON CITY

NV 89711

VOID  
NON-NEGOTIABLE

*Cindy Benson*  
*Lander County Fiscal Officer*

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**LANDER COUNTY COMMISSION MEETING**

**August 9, 2018**

**APPROVE**

**Check #107733**



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Cindy Benson – Fiscal Officer

# COUNTY OF LANDER

WINNEMUCCA PUB. CO., INC.

DBA: BATTLE MOUNTAIN BUGLE

DATE	INVOICE	AMOUNT	REMARKS
07/27/18	SUBSCRIBER 000160	35.00	1 YEAR LANDER COUNTY

CHECK NO 107733 \$35.00 \*\*

## COUNTY OF LANDER

50 State Route 305  
Battle Mountain, NV 89820  
(775) 635-2573

WELLS FARGO BANK  
BATTLE MOUNTAIN, NV 89820  
GENERAL ACCOUNT

No. 107733

94-7074  
3212

PAY TO THE ORDER OF

WINNEMUCCA PUB. CO., INC.

VOID IF NOT CASHED  
WITHIN 90 DAYS

DATE	CHECK NO.	AMOUNT
07/27/18 **VOID**	107733 **VOID**	\$35.00 **VOID**

\*\*\*VOID\*\*\*\*\*35DOLLARS AND 00CENTS\*\*\*

WINNEMUCCA PUB. CO., INC.  
1022 S. GRASS VALLEY RD.

DBA: BATTLE MOUNTAIN BUGLE

WINNEMUCCA NV 89445-4045

NON-NEGOTIABLE

*Cindy Benson*  
*Lander County Fiscal Officer*

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**LANDER COUNTY COMMISSION MEETING**

**August 9, 2018**

**APPROVE**

**Check #107734**



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**Cindy Benson – Fiscal Officer**

# COUNTY OF LANDER

PATRICIA YOUNG

DATE	INVOICE	AMOUNT	REMARKS
07/27/18	1807040009	100.00	7/4/18 AUSTIN EMS RUN
07/27/18	1807200021	100.00	7/20/18 AUSTIN EMS RUN
07/27/18	1807200028	100.00	7/20/18 AUSTIN EMS RUN

CHECK NO 107734 \$300.00 \*\*

## COUNTY OF LANDER

50 State Route 305  
Battle Mountain, NV 89820  
(775) 635-2573

WELLS FARGO BANK  
BATTLE MOUNTAIN, NV 89820  
GENERAL ACCOUNT

No. 107734

94-7074  
3212

PAY TO THE ORDER OF

PATRICIA YOUNG

VOID IF NOT CASHED  
WITHIN 90 DAYS

DATE	CHECK NO.	AMOUNT
07/27/18 **VOID**	107734 **VOID**	\$300.00 **VOID**

\*\*\*VOID\*\*\*\*\*300DOLLARS AND00CENTS\*\*\*

PATRICIA YOUNG  
HC 65 BOX A

AUSTIN

NV 89310

VOID  
NON-NEGOTIABLE

***Cindy Benson***  
***Lander County Fiscal Officer***

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***LANDER COUNTY COMMISSION MEETING***

**August 9, 2018**

**APPROVE**

**Check #107735**



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**Cindy Benson – Fiscal Officer**

# COUNTY OF LANDER

DALE'S SERVICE, INC.

DATE	INVOICE	AMOUNT	REMARKS
07/31/18	LA-2018-092 FA-28	36,538.55	JUNE/JULY BM AIRPORT
07/31/18	LA-2018-093 FA-27	36,538.55	JUNE/JULY AUSTIN AIRPORT

CHECK NO 107735 \$73,077.10 \*\*

## COUNTY OF LANDER

50 State Route 305  
Battle Mountain, NV 89820  
(775) 635-2573

WELLS FARGO BANK  
BATTLE MOUNTAIN, NV 89820  
GENERAL ACCOUNT

No. 107735

94-7074  
3212

PAY TO THE ORDER OF

DALE'S SERVICE, INC.

VOID IF NOT CASHED  
WITHIN 90 DAYS

DATE	CHECK NO.	AMOUNT
07/31/18 **VOID**	107735 **VOID**	\$73,077.10 **VOID**

\*\*\*VOID\*\*\*\*\*73,077DOLLARS AND10CENTS\*\*\*

DALE'S SERVICE, INC.  
7755 W MOSSY CUP STREET

BOISE

ID 83709

VOID  
NON-NEGOTIABLE

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_1\_\_

***THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:***

Discussion and possible action to approve/disapprove to change the eastern 716.27 feet of APN#010-280-04 and 010-280-06 from farm and ranch district (A-3) to one acre agricultural district (A-1) with a minimum lot size of 2.5 acres, leaving the westerly 610 feet of each parcel zoned as A-3 to create a butter zone to existing farm and ranch operations, and all other matters properly related thereto.

**Public Comment:**

**Background:** This item was heard before the Lander County Planning Commission at their regular scheduled meeting on July 25, 2018 and approved. Notice was sent to property owners within 300 feet of the property on June 28th and an amended notice was sent on July 9th. It was advertised in the Battle Mountain Bugle on July 11th. This file was sent to County Executive Director, Public Works, Building Official, Assessor and District Attorney with no comments made.

**Recommended Action:** It is recommended that the commission uphold the recommendation of the Lander County Planning Commission and approve this zone change request for APNs 010-280-04 and 010-280-06.



## Lander County Commission Agenda Request Form

COMMISSIONER MEETING DATE 08-09-2018

NAME: WILLIAM KOHLMAYER REPRESENTING: SELF

ADDRESS 2780 MARVEL RANCH ROAD BATTLE MOUNTAIN, NV 89820

HOME PH: \_\_\_\_\_ WORK \_\_\_\_\_ CELL 775-374-0610 FAX \_\_\_\_\_

WHICH NUMBER SHOULD WE CALL DURING NORMAL BUSINESS HOURS? CELL PHONE

WHO WILL BE ATTENDING THE MEETING: WILLIAM KOHLMAYER

JOB TITLE \_\_\_\_\_ PH 775-374-0610

**SPECIFIC REQUEST TO BE PLACED ON THE AGENDA:** TO CHANGE THE EASTERN 716.27 FEET OF APN# 010-280-04 & 010-280-06 FROM FARM AND RANCH DISTRICT (A-3) TO ONE ACRE AGRICULTURAL DISTRICT (A-1) WITH A MINIMUM LOT SIZE OF 2.5 ACRES, LEAVING THE WESTERLY 610 FEET OF EACH PARCEL ZONED AS A-3 TO CREATE A BUFFER ZONE TO EXISTING FARM AND RANCH OPERATIONS.

**BACKGROUND INFORMATION:** THIS ITEM WAS HEARD BEFORE THE LANDER COUNTY PLANNING COMMISSION AT THEIR REGULAR SCHEDULED MEETING ON JULY 25, 2018 AND APPROVED. NOTICE WAS SENT TO PROPERTY OWNERS WITHIN 300 FEET OF THE PROPERTY ON JUNE 28<sup>TH</sup> AND AN AMENDED NOTICE WAS SENT ON JULY 9<sup>TH</sup>. IT WAS ADVERTISED IN THE BATTLE MOUNTAIN BUGLE ON JULY 11<sup>TH</sup>. THIS FILE WAS SENT TO COUNTY EXECUTIVE DIRECTOR, PUBLIC WORKS, BUILDING OFFICIAL, ASSESSOR AND DISTRICT ATTORNEY WITH NO COMMENTS MADE.

**WHAT ACTION WOULD YOU LIKE THE BOARD TO TAKE TO RESOLVE THIS ISSUE?** IT IS RECOMMENDED THAT THE COMMISSION UPHOLD THE RECOMMENDATION OF THE LANDER COUNTY PLANNING COMMISSION AND APPROVE THIS ZONE CHANGE REQUEST FOR APNS 010-280-04 & 010-280-06 LOCATED IN THE W ½ OF THE N/E ¼ OF SECTION 14, TOWNSHIP 32 NORTH, RANGE 44 EAST, LANDER COUNTY, BATTLE MOUNTAIN, NEVADA; FROM FARM AND RANCH DISTRICT (A-3) TO ONE ACRE AGRICULTURE DISTRICT (A-1) WITH A MINIMUM LOT SIZE OF 2.5 ACRES; LEAVING THE WESTERLY 610 FEET OF EACH PARCEL ZONED A-3 TO CREATE A BUFFER ZONE TO EXISTING FARM AND RANCH OPERATIONS.

ARE THERE ANY COSTS ASSOCIATED WITH YOUR REQUEST? YES \_\_\_\_ NO ☒

AMOUNT \$ \_\_\_\_\_

HAS THIS ISSUE BEEN DISCUSSED AT A PRIOR COMMISSION MEETING? YES \_\_\_\_ NO ☒

WHEN? \_\_\_\_\_

HAS THIS ISSUE BEEN REVIEWED AND APPROVED BY AFFECTED DEPT HEADS? YES ☒ NO \_\_\_\_

ALL BACKUP MATERIAL MUST BE PROVIDED WITH AGENDA REQUEST, NOT AT THE MEETING:

IS ALL THE BACK UP MATERIAL ATTACHED TO THIS AGENDA REQUEST? YES ☒ NO \_\_\_\_

IF THE ITEM IS A CONTRACT AND/OR AGREEMENT, OR REQUIRES LEGAL REVIEW, IT MUST BE REVIEWED BY THE DISTRICT ATTORNEY'S OFFICE PRIOR TO AGENDA SETTING OR IT WILL NOT GO ON THE AGENDA.

HAS THE DISTRICT ATTORNEY'S OFFICE PROVIDED THE REQUIRED REVIEW? YES \_\_\_\_ NO \_\_\_\_

**THE COMMISSIONERS RESERVE THE RIGHT TO REJECT OR RECOMMEND TABLING ALL AGENDA REQUESTS FOR INSUFFICIENT INFORMATION.**

ALL INFORMATION STATED IS CORRECT AND TRUE TO MY KNOWLEDGE:

SIGNATURE [Signature] DATE 7-27-18  
The Lander County Board of Commissioners meets the 2<sup>nd</sup> and 4<sup>th</sup> Thursday of each month

# LANDER COUNTY PLANNING COMMISSION

July 25, 2018

## AGENDA ITEM NUMBER 3

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- 1) \*Discussion for possible action regarding approval/disapproval of the following Zone Change, and other matters properly related thereto:

Applicant: William & Heather Kohlmeier

Location: Faded Sage Drive Battle Mountain, NV. W ½ of N/E ¼ of Sec. 14 R44E T32N. Lots 1 & 3 Ashcraft Map #183519.

APN: 010-280-04 & 010-280-06

Type: To change the eastern 716.27 feet of APN # 010-280-04 & 010-280-06 from A-3 to A-1 with a minimum lot size of 2.5 acres, leaving the westerly 610 feet of each parcel zoned as A-3 to create a buffer zone to existing farm and ranch operations.

Staff Comments:

This file was sent to: County Executive Director, Public works, Building Official, Assessor and District Attorney.

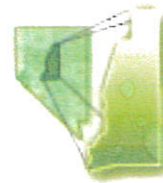
Applicant has left an area to the west of each parcel that will remain A-3 as a buffer zone between lower density zoned land and higher density land A-1. The property to the east, north and west of APN 010-280-04 are zoned A-3. The master plan calls for a "buffer zone" of A-2 between A-3 lands and A-1 lands transitioning from higher to lower density lands. The property to the West of APN 010-280-06 is zoned A-3 with existing farm and ranch operations. The property to the south is zoned A-1 and A-3. The property to the east is zoned A-1. Both Lander County Master Plan and Zoning codes call for a minimum of 2.5 acre parcels if municipal water and sewer and well service. Lander County is extending Municipal water in that area so only septic will be on each parcel. 99 septic systems per mile are allowed in this area without further engineering (allowing 198). Currently there are 11 septic systems. At complete build-out, including parcels with the potential of adding septic service in the future, there will be approximately 60 septic systems.

Notice was sent to property owners within 300 feet of the property on June 28<sup>th</sup> and an amended notice was sent on July 9<sup>th</sup>. It was advertised in the Battle Mountain Bugle on July 11<sup>th</sup> and again on July 18<sup>th</sup>.

\* Taxes are not current on both properties.

# Lander County Planning Commission

315 South Humboldt Street  
Battle Mountain NV 89820  
Phone: (775) 635-2860  
Fax: (775) 635-1120



## ZONE CHANGE APPLICATION

### APPLICANT / OWNER INFORMATION

Applicant(s): Willan and Heather Kohlmeier  
Physical Address: ALLEN ROAD  
Mailing Address: 2780 MARVEL RANCH ROAD BATTLE MOUNTAIN, NV 89820  
Phone Number: 775-374-0610  
Owner(s) Property: Willan and Heather Kohlmeier

### PROJECT INFORMATION

Property Location: W1/2 OF N/E 1/4 Of Sec 14 Range 44 East Township 32 North  
LOTS 1 & 3 - ASHCRAFT MAP #183519

Assessor's Parcel Number: 010-280-04 and 010-280-06

Current Zoning: A3

ZONING WANTED Change East 716.27 feet of APN 010-280-04 and 010-280-06 from A-3 to A-1 with a  
minimun lot size of 2.5 AC. TOTAL 29.17 ac.

Are there any deed restrictions affecting the use of the property? ☐ yes ☒ no

What is the reason for the Zone Change Request?

*To utilize Lander County's, water line on Faded Sage Drive*

*The reason for wanting zoning changes is that it makes it more open for possible development.*

Will granting a Zone change affect or conflict with the land use compatibility of the area? ☐ yes ☒ no

Why or Why not? *It meets all recommendation set forth in the Lander county master plan.*

*Lander county master plan recommends placing A-2 zoning next to an active farm and ranch operations, for a bumper zone.*

Will granting a Zone Change affect public health, safety or general welfare?

☐ yes ☒ no

Why or Why not?

*Lander county master plan recommends lot size of 2.5 acers or more if you plan on using an onsite well and septic system*

*Will service all lots with lander county municipal water.*

*Will service all lots with on site septic system*

How will the proposed Zone Change request affect adjoining property owners with regard to noise, dust, traffic?

*NO.*

*Lander county master plan recommends placing A-2 zoning next to an active farm and ranch operations, for a bumper zone*

*Leaving 610 foot bumper zone of A-3 next to active farm and ranch operation*

### SIGNATURE(S)

I hereby certify that the information stated above and materials submitted along with this application form are true and correct to the best of my knowledge. It is my responsibility to inform Lander County of any changes to information represented in this submittal.



Applicant's Signature

Date: 6-7-18

\_\_\_\_\_  
Applicant's Signature (If not owner)

Date: \_\_\_\_\_

### REQUIRED AT TIME OF APPLICATION

The following must accompany this application:

- A copy of the Grant, Bargain & Sale Deed or an Affidavit attesting to ownership.
- Site plan.
- \$300.00 application fee (non-refundable)

The completed application is due by June 15 in order to be on the July 11<sup>th</sup> 3:00 p.m. Planning Commission Agenda

**Should you have any questions, please contact us at (775) 635-2860 or 50 State Route , Battle Mountain, NV.**



Close Window

Personal Property

Sales Data

Secured Tax Inquiry

Recorder Website

## Parcel Detail for Parcel # 010-280-04

## Location

Property Location **680 ALLEN ROAD**  
 Town  
 District **8 0 - Battle Mountain Road Special**  
 Subdivision **LOT 1, ASHCRAFT MAP**  
**183519** Lot Block  
 Property Name

Add'l Addresses

Assessor Maps

Legal Description

Ag Land

## Prior Parcel # 008-220-69

## Ownership

Assessed Owner Name **KOHLMEYER, WILLIAM & HEATHER**

Mailing Address

**2780 MARVEL RANCH ROAD**  
**BATTLE MOUNTAIN, NV 89820**

Ownership History

Document History

Legal Owner Name **KOHLMEYER, WILLIAM & HEATHER**Vesting Doc #, Date **264346**  
**255**06/22/2012 Year / Book / Page **12 / 634 /**Map Document #s **183519**

## Description

Total Acres **27.630**Square Feet **0**Ag Acres **000**W/R Acres **000**

## Improvements

Single-family Detached **0** Non-dwelling Units **0** Bedrooms / Baths **0 / 00**Single-family Attached **0** Mobile Home Hookups **0** Stories **0**Multiple-family Units **0** Wells **0** Garage Square Ft... **0**Mobile Homes **0** Septic Tanks **0** Attached / DetachedTotal Dwelling Units **0** Buildings Sq Ft **0**Improvement List Residence Sq Ft **0**Improvement Sketches Basement Sq Ft **0** BasementImprovement Photos Finished Basement SF **0** Bedrooms / Baths **0 / 00**

## Appraisal Classifications

Current Land Use Code **100**

Code Table

Zoning Code(s) **A3**Re-appraisal Group **4**Re-appraisal Year **2013**

Original Construction Year Weighted Year

## Assessed Valuation

Assessed Values **2018-19 2017-18 2016-17**Land **7,350 7,350 7,350**Improvements **0 0 0**Personal Property **0 0 0**Ag Land **0 0 0**Exemptions **0 0 0**Net Assessed Value **7,350 7,350 7,350**

Increased (New) Values

Land **0 0 0**Improvements **0 0 0**Personal Property **0 0 0**

## Taxable Valuation

Taxable Values **2018-19 2017-18 2016-17**Land **21,000 21,000 21,000**Improvements **0 0 0**Personal Property **0 0 0**Ag Land **0 0 0**Exemptions **0 0 0**Net Taxable Value **21,000 21,000 21,000**

Increased (New) Values

Land **0 0 0**Improvements **0 0 0**Personal Property **0 0 0**

Back to Search List



Close Window

Personal Property

Sales Data

Secured Tax Inquiry

Recorder Website

## Parcel Detail for Parcel # 010-280-06

## Location

Property Location [LOT 3 - ASHCRAFT MAP #183519](#)

Town

District [8.0 - Battle Mountain Road Special](#)Subdivision [WITHIN NE4 14/32/44](#) Lot Block

Property Name

Add'l Addresses

Assessor Maps

Legal Description

Ag Land

## Prior Parcel # 008-220-71

## Ownership

Assessed Owner Name [KOHLMEYER, WILLIAM & HEATHER](#)

Mailing Address

[2780 MARVEL RANCH ROAD](#)  
[BATTLE MOUNTAIN, NV 89820](#)Legal Owner Name [KOHLMEYER, WILLIAM & HEATHER](#)Vesting Doc #, Date [269521](#) [12/10/2013](#) Year / Book / Page [13 / 653 / 369](#)Map Document #s [183519](#)

Ownership History

Document History

## Description

Total Acres [26.380](#)Square Feet [0](#)Ag Acres [000](#)W/R Acres [000](#)

## Improvements

Single-family Detached [0](#)Non-dwelling Units [0](#)Bedrooms / Baths [0 / 00](#)Single-family Attached [0](#)Mobile Home Hookups [0](#)Stories [0](#)Multiple-family Units [0](#)Wells [0](#)Garage Square Ft... [0](#)Mobile Homes [0](#)Septic Tanks [0](#)

Attached / Detached

Total Dwelling Units [0](#)Buildings Sq Ft [0](#)

Improvement List

Residence Sq Ft [0](#)

Improvement Sketches

Basement Sq Ft [0](#)

Basement

Improvement Photos

Finished Basement SF [0](#)Bedrooms / Baths [0 / 00](#)

## Appraisal Classifications

Current Land Use Code [100](#)

Code Table

Zoning Code(s) [A3](#)Re-appraisal Group [4](#)Re-appraisal Year [2013](#)

Original Construction Year

Weighted Year

## Assessed Valuation

Assessed Values	2018-19	2017-18	2016-17
Land	<a href="#">7,350</a>	<a href="#">7,350</a>	<a href="#">7,350</a>
Improvements	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>
Personal Property	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>
Ag Land	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>
Exemptions	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>
<b>Net Assessed Value</b>	<a href="#">7,350</a>	<a href="#">7,350</a>	<a href="#">7,350</a>

## Increased (New) Values

Land	<a href="#">0</a>	<a href="#">0</a>	<a href="#">3,675</a>
Improvements	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>
Personal Property	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>

## Taxable Valuation

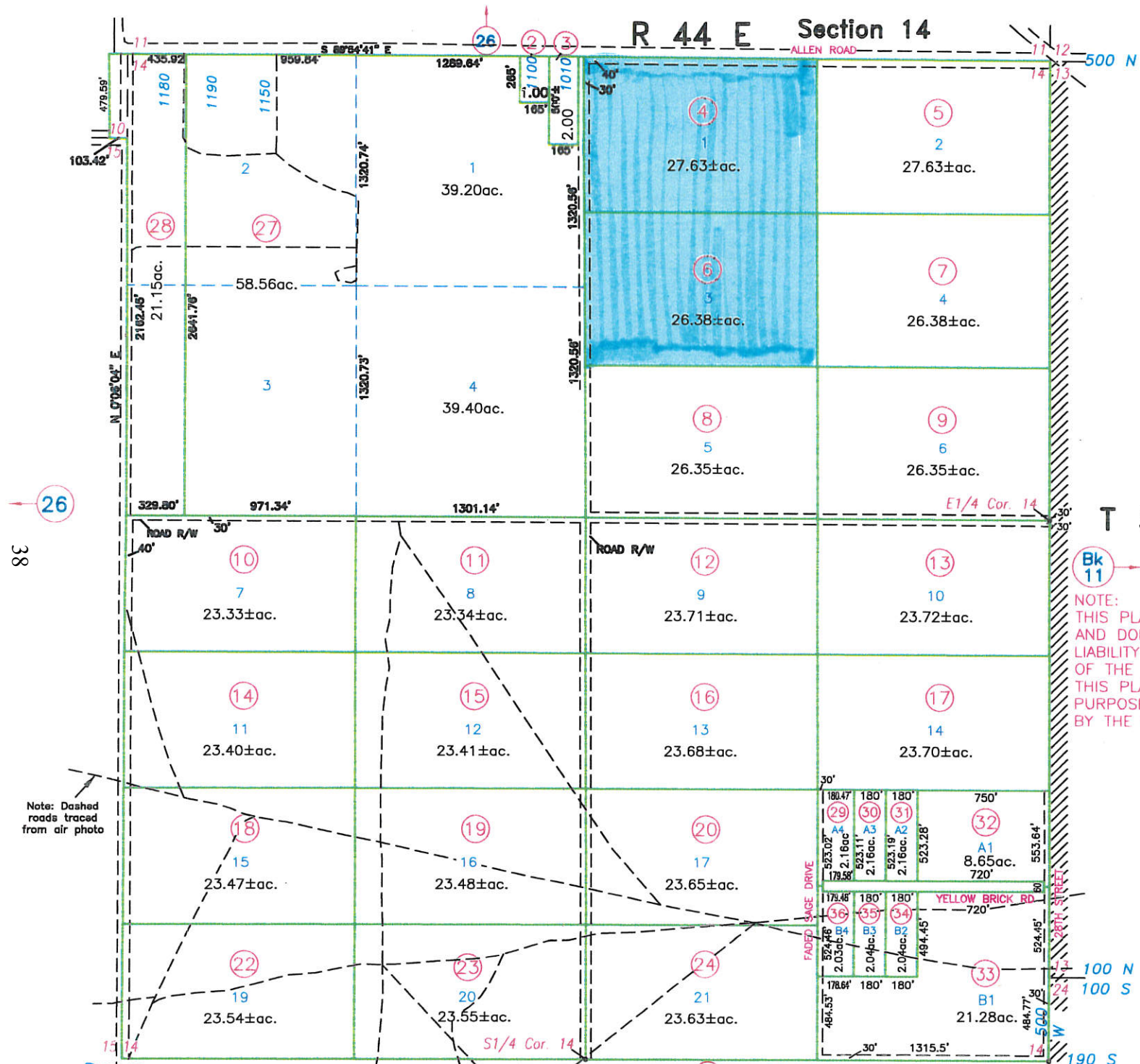
Taxable Values	2018-19	2017-18	2016-17
Land	<a href="#">21,000</a>	<a href="#">21,000</a>	<a href="#">21,000</a>
Improvements	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>
Personal Property	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>
Ag Land	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>
Exemptions	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>
<b>Net Taxable Value</b>	<a href="#">21,000</a>	<a href="#">21,000</a>	<a href="#">21,000</a>

## Increased (New) Values

Land	<a href="#">0</a>	<a href="#">0</a>	<a href="#">10,500</a>
Improvements	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>
Personal Property	<a href="#">0</a>	<a href="#">0</a>	<a href="#">0</a>

Back to Search List

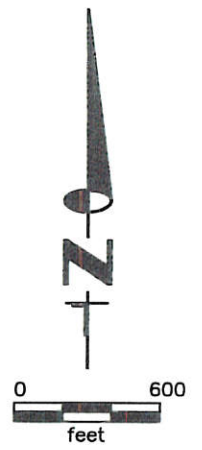
R 44 E Section 14



T 32 N

Bk 11

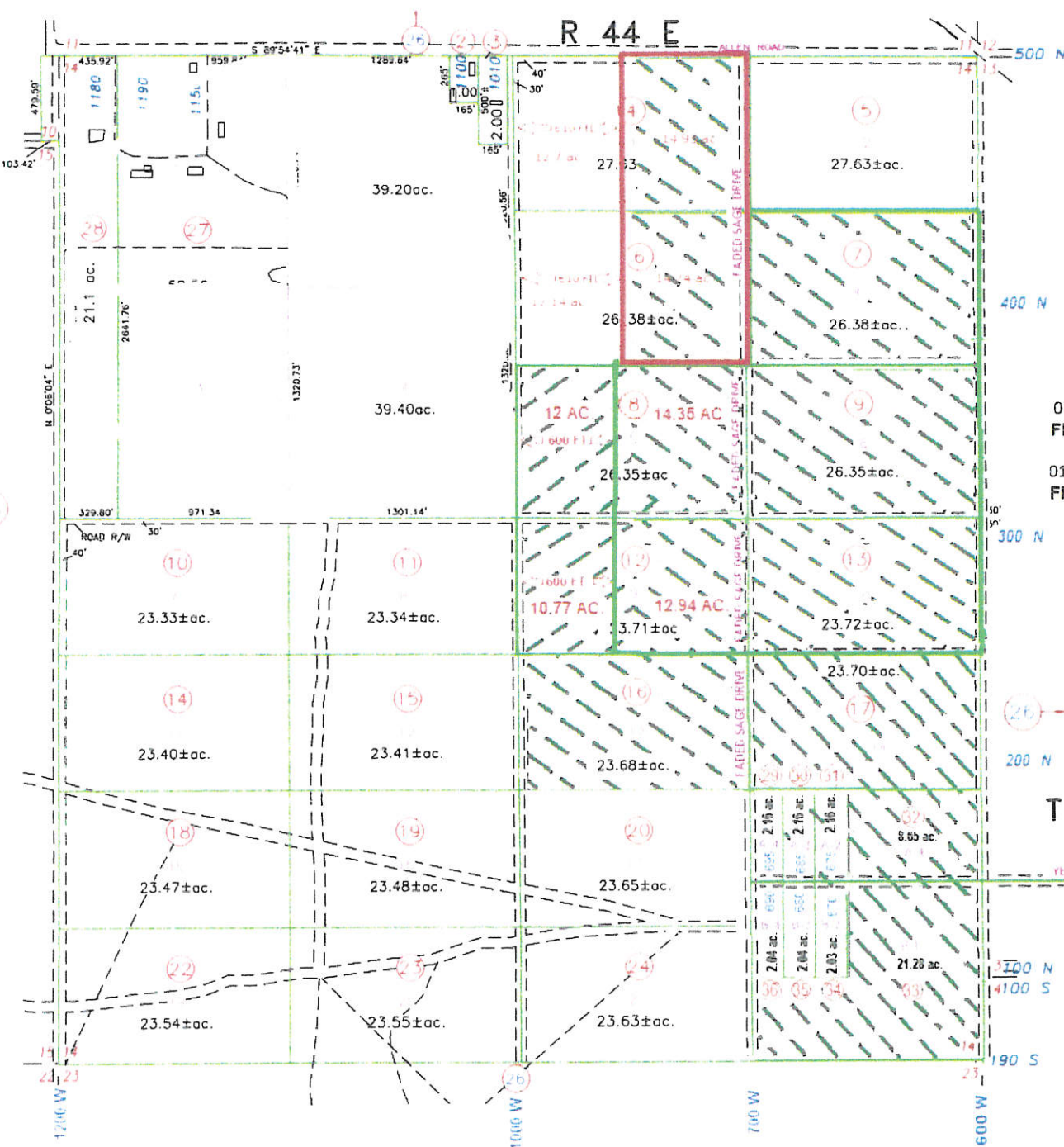
NOTE:  
THIS PLAT IS FOR ASSESSMENT USE ONLY,  
AND DOES NOT REPRESENT A SURVEY. NO  
LIABILITY IS ASSUMED AS TO THE ACCURACY  
OF THE DATA DELINEATED HEREON. USE OF  
THIS PLAT FOR OTHER THAN ASSESSMENT  
PURPOSES IS FORBIDDEN UNLESS APPROVED  
BY THE DEPT. OF TAXATION.



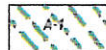

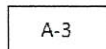
Split 10-280-25 to 10-280-33, 34, 35 & 36 Doc. #274676  
Split 10-280-21 to 10-280-29, 30, 31 & 32 Doc. #274677; GEO-Graphics 02/04/17 NJW

Boundary line adjustment 10-280-21  
and 25, Doc. #273960 6/30/2015

LANDER COUNTY



# ZONING MAP

-  A-1
-  A-2
-  A-3

A-1 WITH A MINIMUM LOT SIZE OF 2.5 AC.

010-280-0 14.93 ac.. CHANGE EAST 716.27 FEET FROM A-3 TO A-1

010-280-06 14.24 ac. CHANGE EAST 716.27 FEET FROM A-3 TO A-1

TOTAL 29.17 ac.

T 32 N

LANDER COUNTY

1026030

1026031

1026029

A-3

A-3

A-3

1028002

1028003

1028004

1028005

1101005

1101007 1101008

A-3

1028027

A-3

1028006

1028007

A-1

1028008

A-1

1028009

A-1

A-3

1028010

1028011

1028012

A-1

1028013

A-1



# RECORDING REQUEST BY:

Lander County Clerk

50 State Route 305

Battle Mountain, NV 89820

NOTICE OF ZONING CHANGE: APN 010-280-04 & 010-280-06

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TITLE OF DOCUMENT

This page added to provide additional information required by NRS 111.312 Section 1-2.  
This cover page must be typed or printed.

APN: 010-280-04 & 010-280-06

### NOTICE OF ZONE CHANGE

PLEASE TAKE NOTICE that the Lander County Board of Commissioners at its regularly scheduled meeting held on the 09<sup>th</sup> day of August, 2018, pursuant to the request of William & Heather Kohlmeyer, did approve and formally change zoning on Lander County Assessor's Parcel Number 010-280-04 & 010-280-06 from Farm and Ranch District (A-3) to One Acre Agricultural (A-1) zoning with a minimum lot size of 2.5 acres.

Note: The remaining west 610 feet of 010-280-04 and 010-280-06 will be combined into one lot and rezoned to Farm and Ranch District (A-3) within three years of the recording of this document.

The real property, commonly known as APN: 010-280-04 & 010-280-06, described as LOTS 1 & 3 · ASHCRAFT MAP #183519, are located in the W ½ of the N/E ¼ of Section 14, Township 32 North, Range 44 East, Lander County, Battle Mountain, Nevada.

Dated this \_\_\_\_\_ day of August 2018.

\_\_\_\_\_  
DOUG MILLS, CHAIRMAN  
LANDER COUNTY COMMISSION

Attest: \_\_\_\_\_  
SADIE SULLIVAN  
LANDER COUNTY CLERK

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_2\_\_

***THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:***

Discussion and possible action regarding Policies, Procedures, PERS, ratification of the Fire Chief, attendance sheets, and physical fitness requirements for the Battle Mountain Volunteer Fire Department set forth by the Lander County Board of Commissioners, and all other matters properly related thereto.

Public Comment:

Background:

Recommended Action:

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_3\_\_

***THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:***

Discussion and possible action regarding participating in a lawsuit as a class member related to Payments In Lieu of Taxes Act (PILT) for FY 15/16/17. Case Nos. 17-739C and 17-1991C (consolidated) Kane County, Utah vs. United States, and all other matters properly related thereto.

Public Comment:

Background: **Attached**

Recommended Action:

**Class Action Opt-In Notice Form**

UNITED STATES COURT OF FEDERAL CLAIMS

*Kane County, Utah v. United States*

Case Nos. 17-739C and 17-1991C (Consolidated)

1. To participate in this lawsuit as a Class Member, please fill out this form completely and legibly. **It must be submitted, postmarked, or delivered no later than September 14, 2018.**

See Paragraph 5 below for the addresses for (a) electronic submission via the internet; (b) first class mail; and (c) delivery by pre-paid delivery service.

2. Please fill in the name of the unit of local government [i.e., County, City, Town, Borough, Parish, etc.] opting into the *Kane County, Utah v. United States* Class Action lawsuit:

\_\_\_\_\_, \_\_\_\_\_  
Unit of local government State

3. Please fill in the following information for the unit of local government:

Name of the person who will act as contact for the unit of local government regarding the Class Action lawsuit:

\_\_\_\_\_

His /Her:

Title \_\_\_\_\_

Mailing

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

4. By signing your name in the space below (or filling in an electronic signature in the format /s/ *First name Last name* if submitting via the internet) you are declaring under penalty of perjury under the laws of the United States that:

(a) The unit of local government named above wishes to opt into the Class Action lawsuit: *Kane County, Utah v. United States*, Case Nos. 17-739C and 17-1991-C (Consolidated).

(b) You are authorized by the unit of local government named above to sign this document on its behalf.

Sign Your Name: \_\_\_\_\_ Date: \_\_\_\_\_

Print/Type Your Name: \_\_\_\_\_

Your Position or title with the unit of local government: \_\_\_\_\_

Your e-mail address: \_\_\_\_\_

Your phone number: \_\_\_\_\_

5. Submit this completed form to:

**On Line:**

by clicking "Submit" at <http://www.PILTpayments.com>

- A copy of this Class Action Opt-In Notice Form may also be downloaded at this website.

**By First Class Mail:**

PILT Payments Class Action  
P. O. Box 65876  
Washington, D.C. 20035-5876

**Pre-paid Delivery Service:**

PILT Payments Class Action  
1025 Connecticut Avenue, N.W., Suite 600  
Washington, D.C. 20036

**United States Court of Federal Claims  
Washington, D.C.**

**OFFICIAL NOTICE**

The United States Court of Federal Claims has certified a **CLASS ACTION** lawsuit regarding your right to recover additional sums under the **PAYMENTS IN LIEU OF TAXES ACT** [PILT Act] for fiscal years 2015, 2016, and 2017.

***This is not a solicitation from a lawyer.***

The Court of Federal Claims, in the case of *Kane County, Utah v. United States*, Case Nos. 17-739C and 17-1991C (Consolidated) [the Lawsuit], has directed sending this notice to a Class made up of: **“All ‘unit[s] of general local government,’ as defined in 31 U.S.C. § 6901(2), that received payment under 31 U.S.C. § 6902(a) of the Payment in Lieu of Taxes Act [PILT Act] in fiscal years 2015, 2016 and/or 2017.”**

You are receiving this notice because you are a unit of local government believed (1) to be a member of that Class, and (2) to have been underpaid in those years.

The Lawsuit seeks to recover monies that the Court has determined that the federal government owes each Class Member for the underpayment of its respective PILT Act entitlement in fiscal years 2015, 2016, and/or 2017.

To obtain the money that the federal government owes you, *without having to file your own lawsuit*, you must submit a Class Action Opt-In Notice Form which can be done quickly and securely online at [www.PILTPayments.com](http://www.PILTPayments.com). You may also complete and return the enclosed copy of the Class Action Opt-In Notice Form by first class mail or pre-paid delivery service.

**To participate in the Lawsuit, you must submit your completed Class Action Opt-In Notice no later than September 14, 2018.**

**YOUR LEGAL RIGHTS AND OPTIONS IN THIS LAWSUIT**

- This Notice has been sent to you by order of a federal court. **Please read this Notice carefully and fully.** It explains the opportunity you now have to join a Class Action Lawsuit currently pending before the Court.
- The Court is neither encouraging nor discouraging you to join the Lawsuit. You have the right to participate in the Lawsuit as a Class Member, or to do nothing and be excluded from the Lawsuit.

- **Please Note:** This particular Class Action differs from many other class actions in the United States because,
  - if you do nothing, you will not be able to participate in the Lawsuit, and
  - the Court has already ruled that the federal government owes each Class Member for underpayments in fiscal years 2015, 2016, and/or 2017.

SUMMARY OF YOUR RIGHTS AND OPTIONS IN THIS LAWSUIT	
ASK TO BE INCLUDED (OPT INTO THE CLASS ACTION LAWSUIT)	<p>By submitting a Class Action Opt-In Notice Form you are asking to be included in the Lawsuit, receive any PILT Act underpayments recovered in the Lawsuit, and be bound by its results.</p> <ul style="list-style-type: none"> <li>• You acquire rights to any money that the Court determines that you are due as a result of underpayment, in fiscal years 2015 through 2017, of your entitlement under Section 6902 of the PILT Act.</li> <li>• You will be bound by the outcome of the case, whether favorable or unfavorable to you.</li> </ul> <p>You will also give up the right to sue the federal government on your own, and at your own expense, for the same legal claims made in the lawsuit.</p> <p>In order to join the Lawsuit, you <b>must</b> submit a completed Class Action Opt-In Notice Form online, by first class mail, or by pre-paid delivery service. The Class Action Opt-In Notice Form <b>must be submitted, postmarked, or delivered no later than September 14, 2018.</b></p>
DO NOTHING	<p>If you do nothing, you will not be included in the Lawsuit, and you will have no right to any money recovered in the Lawsuit. But you will keep the right to sue the federal government for any alleged PILT Act underpayments in fiscal years 2015 through 2017, on your own and at your own expense.</p>

- Your rights and options, and the deadline to exercise them, are further explained below.
- This Notice may affect your legal rights. Read it carefully.

## **BASIC INFORMATION**

### **1. Why did I get this Notice?**

The federal government's records show that you are a unit of local government that received a payment pursuant to Section 6902 of the PILT Act in fiscal years 2015, 2016, and/or 2017. This Notice advises you that:

- a. The Court has allowed, or "certified," a Class Action Lawsuit against the United States to recover amounts which the Court has determined that the government was required to pay units of local government under 31 U.S.C. § 6902, but did not pay in full in fiscal years 2015, 2016 and 2017.
- b. You are eligible to participate in the Lawsuit by completing and timely submitting a Class Action Opt-In Notice Form. The Form may be completed and submitted online at [www.PILTPayments.com](http://www.PILTPayments.com).

Alternatively, you may complete the enclosed copy of that Class Action Opt-In Notice Form and submit it by first class mail or by pre-paid delivery service.

### **2. What is this Lawsuit about?**

This Lawsuit is about whether the federal government was required to pay in full the amounts due to units of local government under Section 6902 of the PILT Act in fiscal years 2015, 2016, and 2017. The Class Representative (Kane County, Utah) contended that the federal government underpaid units of local government in those years, and that all Class Members are entitled to recover the underpayment amounts. The government denied that any units of local government were entitled to any additional PILT payments beyond the amounts already paid for those years.

### **3. What has the Court decided?**

The Court has ruled that provisions of Section 6902 of the PILT Act obligated the federal government to pay eligible units of local government the full amounts calculated by a formula set forth in the Act even though Congress failed to appropriate sufficient funds to do so in fiscal years 2015 through 2017 (noting that Kane County had not challenged (and the decision did not therefore extend to) the portion the government's reduction of its fiscal year 2015 PILT payments caused by the sequestration of part of the funds appropriated to make FY 2015 PILT payments). The Court granted summary judgment, in favor of the Class, as to the government's liability for underpaying Class Members in those years. The Court has not yet determined the amount by which the Class as a whole, or any individual Class Member, was underpaid in those years. As of the date of this notice, Class Counsel

and counsel for the government have agreed on the amount of the underpayment in fiscal years 2015 and 2016, and anticipate reaching agreement on the amount of the underpayment in fiscal year 2017. The Court's decision is subject to appeal.

#### **4. What is a Class Action and who is involved?**

In a class action, one or more Class Representatives (in this case, Kane County, Utah) sues on behalf of all Class Members (in this case, units of local government that receive PILT payments) who have the same or similar claims. Kane County and all other Class Members who choose to participate in the Lawsuit are the "Plaintiffs." The United States is the "Defendant." In a class action at the United States Court of Federal Claims, the Court resolves all issues for all Class Members who choose to participate in the Lawsuit. Here, that includes the Court's decision that the government is liable, described in paragraph 3 above.

#### **5. Why is this lawsuit a Class Action?**

The Court has decided that this Lawsuit meets the requirements of Rule 23 of the Rules of the United States Court of Federal Claims, which governs class actions in that Court. Specifically, the Court has ruled that:

- The potential Class is so numerous that joinder of all Class Members is impractical;
- There are legal questions and facts common to each Class Member's claim;
- The Class Representative's claim is typical of the claims of other Class Members;
- The Class Representative, Kane County, Utah, and Class Counsel, Alan I. Saltman, a partner in the Washington, D.C. office of Smith, Currie & Hancock LLP, will fairly and adequately represent the interests of the Class;
- The common legal and factual questions predominate over questions affecting only individual Class Members; and
- This Class Action will be more efficient than having many individual lawsuits.

#### **6. What is requested in this Lawsuit?**

The Class Representative seeks, for itself and for all other Class Members who choose to participate in the Lawsuit, payment of the amounts by which each was underpaid in fiscal years 2015 through 2017. Class Counsel will also ask the Court for an award of attorney's fees and expenses.

## WHO MAY PARTICIPATE IN THE CLASS ACTION

### 7. Am I part of this Class Action Lawsuit?

You must decide whether you wish to participate in the Lawsuit. **You cannot participate unless and until you fill out and submit—online, by first class mail, or by pre-paid delivery service—the Class Action Opt-In Notice Form found on the website [www.PILTPayments.com](http://www.PILTPayments.com).** A copy of the Form is also enclosed. The Rules of the United States Court of Federal Claims require that Class Members choose whether to “opt into” the lawsuit. If you fit the description in the next question—and the government’s records indicate that you do—you may opt into and participate in this Lawsuit. If you do nothing, you will be excluded from the Lawsuit and will forfeit your right to receive any monies recovered in the Lawsuit.

### 8. Who can participate in the Lawsuit?

The Court has decided that the Class consists of:

“All ‘unit[s] of local government,’ as defined in 31 U.S.C. § 6901(2), that received payment under 31 U.S.C. § 6902(a) of the Payment in Lieu of Taxes Act in fiscal years 2015, 2016, and/or 2017.”

Any unit of local government meeting this definition may participate in this Lawsuit by timely submitting a completed Class Action Opt-In Notice Form.

### 9. Does participating in the Lawsuit cost any money?

No.

## YOUR OPTIONS

### 10. How can I participate in this Lawsuit?

You can complete and submit your Class Action Opt-In Notice Form online at [www.PILTPayments.com](http://www.PILTPayments.com).

Alternatively, you can complete the enclosed Class Action Opt-In Notice Form and send it by first class mail to: PILT Payments Class Action, P.O. Box 65876, Washington, D.C. 20035-5876; or by pre-paid delivery service to: PILT Payments Class Action, 1025 Connecticut Avenue NW, Suite 600, Washington, D.C. 20036. However you transmit it, you **must** submit your completed Form **no later than September 14, 2018** if you wish to participate in the Lawsuit. **Do not delay.**

**11. What happens once I choose to participate in this Lawsuit?**

As a Class Member who chooses to participate in the lawsuit, you will be represented by Class Counsel, who will take all actions necessary to protect your rights. You will receive the benefit of, and be bound by, all rulings, orders, judgments entered, or settlements approved by the Court, whether favorable or unfavorable. You will **not**, however, be asked to make any out-of-pocket payment of attorney's fees or expenses in the case.

**12. If I choose to participate in the Lawsuit, what will I be required to do?**

After timely submitting a completed Class Action Opt-In Notice Form, the parties currently do not anticipate that you will have to do anything else.

**13. What happens if I choose not to participate in the Lawsuit?**

If you do not submit a completed Class Action Opt-In Notice Form online **on or before September 14, 2018**; by first class mail **postmarked on or before September 14, 2018**; or by pre-paid delivery service **delivered no later than September 14, 2018**, you will be barred from participating in the Lawsuit and will not be entitled to any portion of any monetary recovery by judgment or settlement of the Lawsuit. You will retain the right to sue the federal government on your own about the same legal claims made in the Lawsuit, and will not be bound by the Court's judgment in the Lawsuit. If you decide to pursue your claim independently, outside of this Lawsuit, you should consult an attorney and do so promptly because certain statutes of limitation may bar or limit your claim. If you choose to hire your own attorney, you will be responsible for paying the full cost of that attorney.

**THE LAWYERS REPRESENTING YOU**

**14. If I choose to participate in the Lawsuit, do I have to hire a lawyer to represent me?**

No. The Court has decided that Alan I. Saltman and the firm of Smith, Currie & Hancock LLP are qualified to represent you and all other Class Members who choose to participate. They are called "Class Counsel."

Mr. Saltman is experienced in handling similar cases against the federal government. If you choose to file a Class Action Opt-In Notice Form, you agree to legal representation by Mr. Saltman and his firm.

**15. Should I hire my own lawyer?**

If you decide to participate in the Lawsuit, you do not need to hire a lawyer because Class Counsel is and will continue working on your behalf. But you are permitted to hire your own lawyer if you would like to do so. For

example, you may have your own lawyer appear in Court if you want someone other than Class Counsel to speak for you. Of course, if you choose to hire your own lawyer, you will be responsible for paying the full cost of that lawyer.

**16. How will Class Counsel be paid?**

Class Counsel will submit a request for its fees and expenses to the Court. You will not have to pay any fees or expenses directly. The fees and expenses that the Court determines should be paid to Class Counsel, if any, might be deducted from the money obtained for the Class and might reduce the amount available for distribution to Class Members, and therefore reduce the amount of money you receive.

**LITIGATION INFORMATION**

**17. How and when will the Court decide the amount of the underpayments?**

Class Counsel and counsel for the government have already agreed on the amount of the underpayments in fiscal years 2015 and 2016, and anticipate that they will also reach agreement on the amount of the underpayment in fiscal year 2017. Should that not occur, Class Counsel will have to prove the amount of the underpayments in fiscal year 2017 at trial. No trial date has been set. The Court has not yet entered judgment in any amounts for any of the years involved in the Lawsuit.

**18. If there is a trial on damages, must I attend?**

If there is a trial on damages, you do not need to attend. Class Counsel will present the case on behalf of all Class Members participating in the Lawsuit. You and/or your own lawyer are welcome, and entitled, to attend at your own expense.

**19. When will I get any money from the lawsuit?**

After the Court has determined (a) which Class Members have chosen to participate in the lawsuit, (b) the underpayment amounts, and (c) the fees and expenses that should be paid to Class Counsel, you will be notified about how and when you will receive your payment. At this time, the parties do not know how long that will take, or whether there will be any appeal from the Court's decisions that could impact the entitlement, timing, or amount of any payments.

## GETTING MORE INFORMATION

### **20. Is more information available from the Court?**

The pleadings and other records in the Lawsuit may be examined during regular business hours at the Office of the Clerk of the United States Court of Federal Claims. The Court's address is:

United States Court of Federal Claims  
717 Madison Place, N.W.  
Washington, D.C. 20005

THE COURT HAS INSTRUCTED THAT YOU SHOULD NOT CONTACT THE CLERK'S OFFICE BY TELEPHONE, E-MAIL, OR MAIL FOR INFORMATION ABOUT THIS CASE. Please do **not** contact the United States Court of Federal Claims with questions or requests for information.

### **21. Who can I contact if I have a question or need additional information?**

Both a copy of the Court's decisions on Kane County's Motions for Summary Judgment, and its Order certifying the Class are also available at [www.Smithcurrie.com/PILTPaymentsInfo](http://www.Smithcurrie.com/PILTPaymentsInfo).

Any questions you have can be submitted at [www.Smithcurrie.com/PILTPaymentsInfo](http://www.Smithcurrie.com/PILTPaymentsInfo) and Class Counsel will respond. The answers to Frequently Asked Questions, and to submitted questions of general interest, will also be posted there.

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_4\_\_

***THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:***

Discussion and possible action regarding a Scope of Work proposal from Day Engineering to provide design, bid assistance and construction administrative services for the replacement of a retaining wall and backfill above the Austin Visitors Center, and all other matters properly related thereto.

Public Comment:

Background: **attached**

Recommended Action: **Approval of the Scope of Work provided by Day Engineering.**



5 EAST PARK STREET • FALLON, NEVADA 89406 • (775) 423-9090

## **“EXHIBIT A – SCOPE OF WORK”**

July 31, 2018

Mr. Keith Westengard – Lander County Executive Director  
LANDER COUNTY PUBLIC WORKS  
50 State Route 305  
Battle Mountain, Nevada 89820

### **RE: PROFESSIONAL ENGINEERING SERVICES PROPOSAL FOR NEW RETAINING WALL -AUSTIN VISITOR’S CENTER**

Mr. Westengard;

At the request of Public Works, Day Engineering is pleased to submit the following professional engineering services proposal to provide a design and construction administrative services for replacement and remediation of the back-lot slope failure at the Austin Visitor’s Center.

#### **TASK 1 – SITE INSPECTION-EVALUATION**

**\$ 1,500**

This task includes a site inspection and evaluation of the slope failure at the Austin Visitor’s Center by a geotechnical engineer including exploratory excavation at the failure site with a backhoe and development of a geotechnical report of findings and recommendations for remediation of the slope. Lander County Road and Bridge South will provide the backhoe and operator for excavation at the site. Day Engineering will utilize Soils Engineering, LLC from Reno, Nevada to provide the geotechnical observation, evaluation and recommendations. Mr. Hugh Ezzell is familiar with the Austin and Battle Mountain areas as Day Engineering has utilized Soils Engineering, LLC on past water and sewer projects in both locations. Based on the urgency of the project, a site investigation and evaluation was already performed and recommendations have been provided by Soils Engineering, LLC. A copy of that report is attached herewith.

#### **TASK 2 – DESIGN**

**\$ 2,000**

Day Engineering will develop a site plan and section of the proposed remediation including new gutter pan and curb on Court Street above the failed slope. The Plans will be utilized to solicit bids from Contractors. For the same reason as mentioned in Task 1 above, design has begun on development of Plans for the remediation of the slope and installation of the block retaining wall per the geotechnical engineer’s recommendations. Plans will be submitted to Lander County for review and comment. Pending any review comments, they will be incorporated into a final set of Plans for bidding. Permitting with the Lander County Building Dept. will be included in this task.

Coordination with the adjacent property owner on Main Street west of the Visitor’s Center will be required to accommodate installation of the block retaining wall and backfill material. In addition, Lander County Road and Bridge South has indicated the backfill material will be provided by Road and Bridge for the Contractor’s use in constructing the new slope behind the block wall.

**TASK 3 – BIDDING**

**\$ 1,000**

Day Engineering will assist Lander County in the public bid process including notification and bidding. A pre-bid meeting will be conducted with the Owner and interested bidders. Day Engineering will assist in the opening and review of the bids and provide a recommendation for acceptance and award of the bid.

**TASK 4 – CONSTRUCTION ADMINISTRATION**

**\$ 5,650**

Day Engineering will provide full-time, on-site inspection during the excavation and placement of the concrete blocks and backfill. The geotechnical engineer will be on-site to ensure proper placement of the backfill material and location of the block wall. All subgrade and backfill materials will be tested on site. Pay requests submitted by the Contractor will be reviewed by Day Engineering and recommendation for payment will be submitted to Lander County.

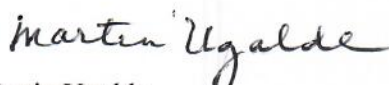
All field inspection reports and photos will be provided to Lander County at the end of the project and as built drawings will also be provided by Day Engineering at the end of the project. Project duration is anticipated to require approximately 2 weeks.

ENGINEERING SERVICES PROPOSAL TOTAL NOT-TO-EXCEED \$ 10,150
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The professional engineering services fee of \$ 10,150 is a time-and-materials fee pursuant with the attached fee schedule. Payment of services is due upon receipt of invoices.

Day Engineering appreciates the opportunity to provide this proposal for your review and look forward to a successful project. If you have any questions or wish to discuss any aspect of this proposal, please do not hesitate to call the undersigned at (775) 423-9090.

Sincerely,  
**DAY ENGINEERING**

  
Martin Ugalde

Enclosures

cc: Kip Helming – Lander County Combined Sewer and Water GID Chair  
Stephanie Colorado – Day Engineering  
Dean Day, P.E. – Day Engineering

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**AUSTIN VISITOR CENTER RETAINING WALL PROJECT**  
**PRELIMINARY COST ESTIMATE**  
**JULY 31, 2018**

WATER MAIN					
BID ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	Mob Demob	1	LS	\$25,000	\$25,000
2	Install Block Wall	53	EA	\$500	\$26,667
3	Install Backfill with Geogrid Tie Back	667	CY	\$10.00	\$6,667
4	Install C&G on Court Street	110	LF	\$85	\$9,350
	<b>Construction Total</b>				<b>\$67,683</b>
	<b>Construction Contingency (10%)</b>				<b>\$6,768</b>
	<b>Engineering Cost Estimate (15%)</b>				<b>\$10,153</b>
	<b>Total Project Cost Estimate</b>				<b>\$84,604</b>

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_5\_\_

***THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:***

Discussion and possible action regarding a Scope of Work proposal from Day Engineering to provide design, bid assistance and construction administrative services for the re-pavement of portions of SR 212, 214 and 215, a total paving project of 12 miles, and all other matters properly related thereto.

Public Comment:

Background: **attached**

Recommended Action: **Approve the Scope of Work proposal from Day Engineering.**



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## **“EXHIBIT A – SCOPE OF WORK”**

July 31, 2018

Mr. Keith Westengard – Executive Director  
LANDER COUNTY PUBLIC WORKS  
50 State Route 305  
Battle Mountain, Nevada 89820

**RE: PROFESSIONAL ENGINEERING SERVICES PROPOSAL  
FOR REPAVING STATE ROUTES 212, 214 AND 215**

Mr. Westengard;

At the request of Public Works, Day Engineering is pleased to submit the following professional engineering services proposal to provide design, bid assistance and construction administration services for the Repaving of State Routes 212, 214 and 215 in Austin, Nevada as designated by Public Works and Lander County Road and Bridge (see attached map).

**TASK 1 – SURVEYING**

**\$ 75,000**

Day Engineering will solicit the services of High Desert Surveying from Elko, Nevada to perform surveying of the existing road surfaces and shoulder along the proposed paving improvement areas. Surveying will include developing topography in order to produce plan and profile drawings of the proposed paving improvements, particularly where the road sections and cattle guard are proposed to be raised and where new culverts are proposed. All visible surface structures such as cattle guards, fences, power poles etc. will be included in the survey and indicated on the plans. All three road segments are connected to State Route 722 and therefore NDOT approaches will be required.

**TASK 2 – DESIGN**

**\$ 332,000**

The design includes development of Plans and Construction Documents for bidding purposes. A 95-percent design product will be provided to Lander County Road and Bridge for review and comment while the project is advertised for bidding. Design will include plan and profile of the proposed new pavement structure along the existing alignments and will not include any changes to width or grade pursuant with Public Works request. The intent of the project is to grind the existing pavement surface and install a new pavement structure over the asphalt grindings. It is also understood that coordination with NDOT will be required at the approaches to State Route 722 and include any project requirements with NDOT regarding the crossing within their right-of-way. A contingent item will be included for the addition of road base for those sections where the road section will be raised. Some additional road base will be provided by Lander County Road and Bridge. A bid alternate item will also be included for CTB base material on Farm District Road as a major part of the traffic consists of hay trucks.

Construction Documents will include bid and contract documents, general and special conditions and technical specifications. The construction documents will be consistent with the previous projects recently completed. Battle Mountain Road and Bridge and NDOT Encroachment Permitting requirements will be addressed. A copy of the current State Prevailing Wage Rates for Lander County will be included.

**TASK 3 – BID SOLICITATION** **\$ 10,000**

Day Engineering will assist Public Works in advertising and soliciting bids for the project including conducting a pre-bid meeting and addressing any addendums that may arise during the bidding process. Day Engineering will also review bids and present a recommendation for award to the Lander County Public Works Department based on the bid results.

**TASK 4 – CONSTRUCTION ADMINISTRATION** **\$ 55,550**

Construction administration includes conducting a pre-construction meeting to discuss the Contractor's proposed schedule and proposed construction plan, staging areas and traffic control throughout the construction process, maintaining public access, etc. Equipment and material submittals will be provided by the Contractor and reviewed by Day Engineering for conformance to the approved Plans and Specifications.

Construction Administration will also include periodic inspections during construction. Daily inspections will be performed by Lander County throughout the entire construction phase of the Project. The estimated duration of the construction phase is approximately 1 month. All field reports and construction photos will be catalogued and provided to Public Works and Road and Bridge upon project completion.

In addition to periodic inspection, compaction tests and asphalt testing at various locations along the road alignment will be conducted in accordance with Orange Book Standards. Lander County will provide testing for the duration of this project. Testing results will be finalized in a summary report and provided to Public Works and Road and Bridge upon project completion.

Pay requests will be processed by Day Engineering prior to recommendation to Lander County Public Works for approval and payment. Quantities and percentage of tasks completed will be field verified by the Inspector prior to processing of any pay requests. All pay request and change orders as well as project progress meetings and project summaries will be developed by Day Engineering.

**TASK 6 – RECORD DRAWINGS** **\$ 45,000**

Record drawings of the completed work will be developed and provided to Public Works pending completion of the Project. Survey locations of the completed road surface and all existing utility structures will be identified on the Record Drawings for accuracy. Two hard copy sets of Record Drawings will be provided including a CD of the Record Drawings in AutoCAD version 17 and PDF format. All field reports and construction photos will also be provided at the conclusion of the Project.

This proposal was developed based on a site visit with Lander County Road and Bridge personnel and recently bid road re-pavement projects in Lander County.

ENGINEERING SERVICES PROPOSAL TOTAL NOT-TO-EXCEED \$ 517,550
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If you have any questions or wish to discuss any aspect of this proposal, please do not hesitate to call the undersigned at (775) 423-9090.

Sincerely,  
**DAY ENGINEERING**

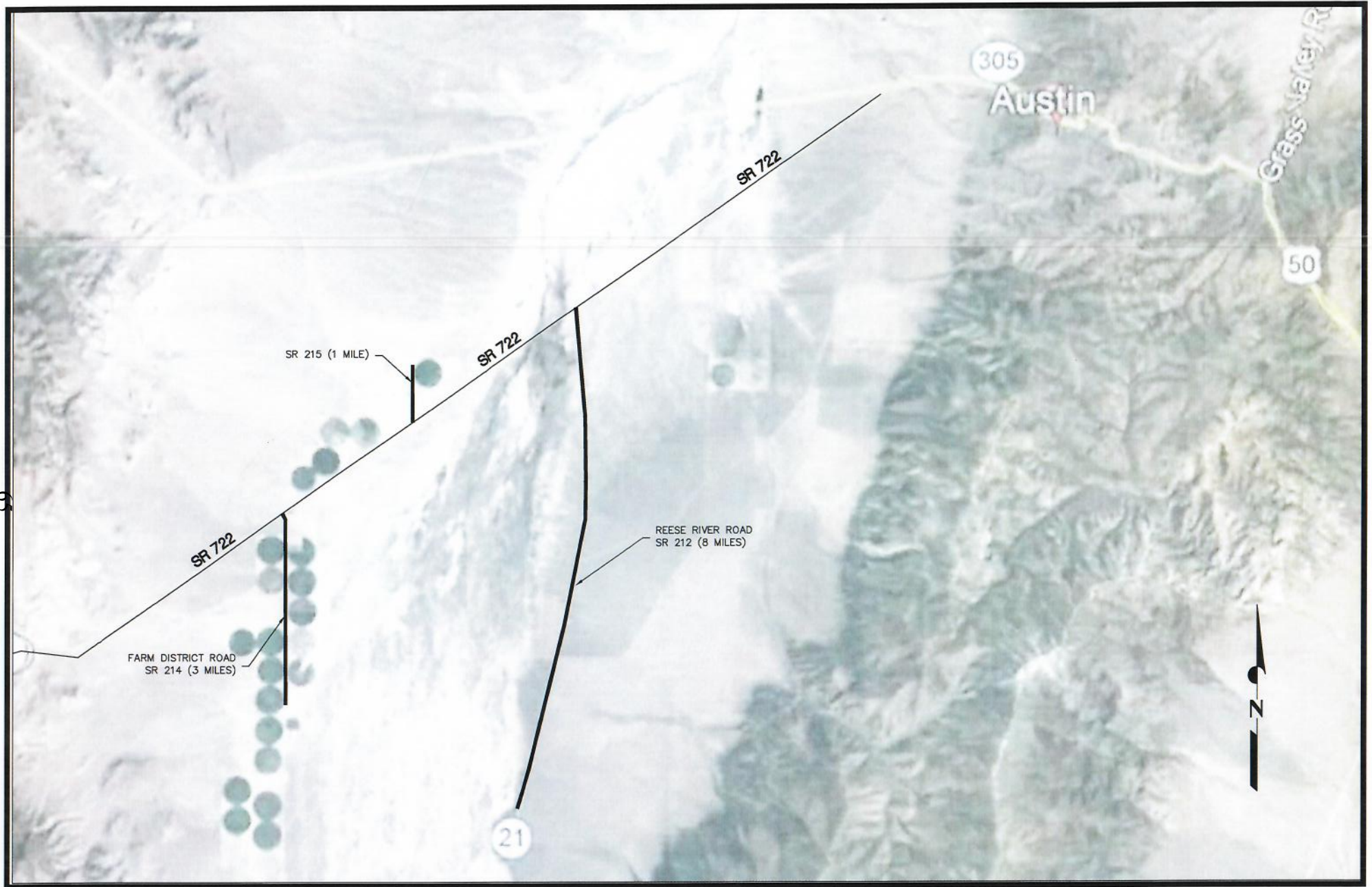


Martin Ugalde

Enclosures

cc: Stephanie Colorado – Day Engineering  
Dean Day, P.E. – Principal, Day Engineering

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**AUSTIN ROAD REPAVEMENT PROJECT**  
**PRELIMINARY COST ESTIMATE**  
**JULY 26, 2018**

<b>SR 212 - REESE RIVER ROAD (8 MILES)</b>					
<b>BID ITEM</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL PRICE</b>
1	Mob Demob	1	LS	\$50,000	\$50,000
2	Grinding and Grading for New Road	42,240	LF	\$18	\$760,320
3	Install AC Pavement (24' Wide)	1,013,760	SF	\$2	\$2,027,520
4	Raise Exist Roadbed	600	LF	\$50	\$30,000
5	Install 36" ADS Culverts with FES	12	EA	\$15,000	\$180,000
6	Repair/Raise Cattle Guards	3	EA	\$5,000	\$15,000
7	NDOT Approach to SR 722	1	LS	\$45,000	\$45,000
8	Driveways-Approaches	4	EA	\$5,000	\$20,000
	<b>Construction Total</b>				<b>\$3,127,840</b>
	<b>Contingency at 10%</b>				<b>\$312,784</b>
	<b>Engineering Cost Estimate (11%)</b>				<b>\$344,062</b>
	<b>Total Project Cost Estimate</b>				<b>\$3,784,686</b>

<b>SR 214 - FARM DISTRICT ROAD (3 MILES)</b>					
<b>BID ITEM</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL PRICE</b>
1	Mob Demob	1	LS	\$50,000	\$50,000
2	Grinding and Grading for New Road	15,840	LF	\$18	\$285,120
3	Install AC Pavement (20' Wide)	316,800	SF	\$2	\$633,600
4	Repair/Raise Cattle Guards	1	EA	\$5,000	\$5,000
5	NDOT Approach to SR 722	1	LS	\$45,000	\$45,000
6	Driveways-Approaches	16	EA	\$5,000	\$80,000
	<b>Construction Total</b>				<b>\$1,098,720</b>
	<b>Contingency at 10%</b>				<b>\$109,872</b>
	<b>Engineering Cost Estimate (11%)</b>				<b>\$120,859</b>
	<b>Total Project Cost Estimate</b>				<b>\$1,329,451</b>

**AUSTIN ROAD REPAVEMENT PROJECT**  
**PRELIMINARY COST ESTIMATE**  
**JULY 26, 2018**

SR 215 (1 MILE)					
BID ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	Mob Demob	1	LS	\$50,000	\$50,000
2	Grinding and Grading for New Road	5,280	LF	\$18	\$95,040
3	Install AC Pavement (24' Wide)	126,720	SF	\$2	\$253,440
4	Install 36" ADS Culverts with FES	1	EA	\$15,000	\$15,000
5	NDOT Approach to SR 722	1	LS	\$45,000	\$45,000
6	Driveways-Approaches	4	EA	\$5,000	\$20,000
	<b>Construction Total</b>				<b>\$478,480</b>
	<b>Contingency at 10%</b>				<b>\$47,848</b>
	<b>Engineering Cost Estimate (11%)</b>				<b>\$52,633</b>
	<b>Total Project Cost Estimate</b>				<b>\$578,961</b>

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_6\_\_

***THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:***

Discussion and possible action regarding the proposal and reading by Title of Ordinance No. 2018-03 amending Title 2 Chapter 06 of the Lander County code deleting references to an executive director and defining all matters relating to, and to modify the duties and powers of the county manager position, and all other matters properly related thereto.

Public Comment:

Background: **attached**

Recommended Action:

SUMMARY: AN ORDINANCE AMENDING TITLE 2, CHAPTER 06 OF THE LANDER COUNTY CODE DELETING REFERENCES TO AN EXECUTIVE DIRECTOR AND DEFINING ALL MATTERS RELATING TO, AND TO MODIFY THE DUTIES AND POWERS OF THE COUNTY MANAGER POSITION; AND OTHER RELATED MATTERS.

TITLE: AN ORDINANCE AMENDING TITLE 2, CHAPTER 06 OF THE LANDER COUNTY CODE DELETING REFERENCES TO AN EXECUTIVE DIRECTOR AND DEFINING ALL MATTERS RELATING TO, AND TO MODIFY THE DUTIES AND POWERS OF THE COUNTY MANAGER POSTION; AND OTHER MATTERS PROPERLY RELATED THERETO.

**THE BOARD OF COUNTY COMMISSIONERS OF THE  
COUNTY OF LANDER, NEVADA DO ORDAIN:**

**SECTION 1:** Lander County Code, Title 2, Chapter 06, is hereby amended to read as follows:

**Chapter 2.06**

**~~EXECUTIVE DIRECTOR~~ COUNTY MANAGER**

**Sections:**

- 2.06.010 Purpose.
- 2.06.020 ~~Executive director's~~ County Manager's office – Generally.
- 2.06.030 Appointment -- Qualifications -- Removal from office.
- 2.06.040 Limitations on appointment of former elected officer.
- 2.06.050 Administrative powers and duties.
- 2.06.060 Limitation on administrative powers and duties of county commissioners.
- 2.06.070 County administration.
- 2.06.080 Budgetary matters – Role of ~~executive director~~ county manager.
- 2.06.090 ~~Executive-director~~ County Manager – Departmental supervision.
- 2.06.100 Employment policies and practices.
- 2.06.110 ~~Executive-director~~ County Manager – General services.
- 2.06.120 ~~Executive-director~~ County Manager – Salary and benefits.

**2.06.010 Purpose.**

It is the intent of the board of county commissioners, in adopting this chapter, to create the position of Lander County ~~executive director~~ county manager and to provide Lander County government with a manager who, under the direction of the board of county commissioners, shall

provide effective, centralized administration for Lander County government, *excluding public works services*, and to define the duties, responsibilities, authority and qualifications thereof.

**2.06.020      ~~Executive Director's~~ County Manager's office – Generally.**

A.      There shall be an ~~executive director~~ *county manager*, who shall be appointed by and serve at the pleasure of the board of county commissioners *and/or* on such other contractual terms as may be agreed upon by the parties.

B.      The ~~executive director~~ *county manager* is a public officer as classified by Nevada Revised Statutes.

**2.06.030      Appointment – Qualifications – Removal from office.**

A.      The ~~executive director~~ *county manager* shall:

1.      Be chosen upon the basis of knowledge and skills in public or business administration, demonstrated administrative ability and knowledge of supervision, public budgeting, personnel, finance and organization. These requirements may be met by a combination of education and experience equal to a bachelor's degree in finance management, accounting, public or business administration, engineering, or equivalent experience, and at least four years experience in government, business, or public administration; including responsibility for management of staff and programs. An MBA, MPA, GFOA certification, or a CPA License is an advantage. Administrative experience, preferably in government or public administration and involving managerial responsibilities, may be substituted for all or part of the business/public administration education requirement;

2.      Be appointed by and serve at the pleasure of the board of county commissioners and may be removed from office by a majority vote of the board of county commissioners. The ~~executive director~~ *county manager* shall provide thirty days' notice to the county of his/her intent to resign from office;

3.      Maintain residence within the county during his/her tenure in office.

B.      The board of commissioners may contract with the ~~executive director~~ *county manager* to receive severance pay. No severance shall be paid in the event of termination for good cause as defined in county's policy manual *and/or by contract if pertinent*.

**2.06.040      Limitations on appointment of former elected officer.**

No person who is or has been an elected officer of Lander County shall be appointed ~~executive director~~ *county manager* unless he/she has been out of office for at least six months prior to the date of appointment.

**2.06.050      Administrative powers and duties.**

A.      The ~~executive director~~ *county manager* shall be the chief administrative officer of the county and shall be responsible to the board of county commissioners for the proper and efficient administration of all county offices, departments, institutions and special districts under the jurisdiction of the board of county commissioners ~~in~~ *excluding* public works. The ~~executive director~~ *county manager* shall serve ex officio as the chief administrative officer under the board of county commissioners for all agencies, institutions and boards which are ex officio duties of the board of

county commissioners, including but not limited to the town board of the unincorporated town of Battle Mountain and the town board of the disincorporated town of Austin. To this end, the ~~executive director~~ *county manager* shall have those powers and duties set forth in this chapter and as reasonably implied therefrom and shall be authorized to assign or delegate the administration of these duties to any department or person under the board's control, *except those within the public works division*, subject to the limitations imposed by law.

*B. The county manager will have authority over the public works director for day to day operations.*

~~B C.~~ This declaration of powers and duties shall not be interpreted to authorize the ~~executive director~~ *county manager* to manage or control performance of the duties of elected or appointed county officials whose duties and authority are expressly declared by statute or necessarily implied therefrom.

#### **2.06.060 Limitation on administrative powers and duties of county commissioners**

The board of county commissioners, by enactment of this chapter having delegated administrative responsibilities over county governmental activities, excluding public works, to the ~~executive director~~ *county manager*, shall not intervene or detract from this delegation without prior notification to the ~~executive director~~ *county manager* from the board. No individual commissioner may give instructions or orders to any county employee. Orders or instructions shall be given by majority action of the board to the ~~executive director~~ *county manager* for implementation. This subsection shall not be interpreted to prevent any county commissioner from seeking and obtaining information about the functioning of county government from any employee. Likewise, this subsection does not prohibit the commissioners from summoning any department head under the ~~executive director~~ *county manager* to give a report to the county commissioners, either verbal or written.

#### **2.06.070 County administration.**

The ~~executive director~~ *county manager* shall:

A. Develop, evaluate and implement administrative policies and procedures to meet board of county commissioners goals and objectives; supervise and evaluate the performance of county departments under the jurisdiction of the ~~executive director~~ *county manager*; direct the establishment of administrative standards, goals, and objectives; coordinate the activities of county department under the jurisdiction of the ~~executive director~~ *county manager* to ensure timely, efficient, and effective delivery of programs and services.

B. Select, direct, and evaluate appointed department heads and other staff; develop and take disciplinary action as authorized by the board of county commissioners with respect to employees under the jurisdiction of the ~~executive director~~ *county manager*; develop and implement training programs to enhance the capabilities of staff and to improve the delivery of services; instruct and train staff under the jurisdiction of the ~~executive director~~ *county manager*; perform the duties of the safety coordinator for the county; hear, respond to, supervise human resource functions and resolve employee problems, concerns, complaints, and grievances of employees under the supervision of the ~~executive director~~ *county manager*, and administer discipline as needed.

C. Negotiate and supervise the negotiation of all county contractual agreements subject

to the limitations of law and board of county commissioners' direction; administer agreements.

D. Analyze proposals and develop recommendations to the board of county commissioners regarding policies, programs and services; analyze information pertaining to county services and operations including policies, programs, methods, budgets, staffing, organization, and capital needs; write reports and correspondence for government agencies, members of the community, and the board as directed.

E. Administer the preparation of board of county commissioners meeting agendas; attends board of county commissioners meetings; make oral and written presentations to the board of county commissioners and to other public and private groups as needed; provide information to the news media and the public regarding county operations; represent the county with other government agencies and in meeting with the public.

F. Implement the board of county commissioners' legislative advocacy program; analyze proposed legislation and administrative regulations for their impact on county operations; review and make recommendations to the board regarding departmental legislative activities; participate in the lobby process by presenting oral and written testimony to appropriate bodies.

G. Provide direction and support to the staff under the jurisdiction of the ~~executive director~~ county manager; provide advice and consultation to the members of the board; investigate and resolve complaints and concerns regarding county programs, services, and facilities; act as liaison with other regional, state and federal agencies on a broad range of matters.

H. Direct the purchasing of supplies, materials and equipment for the departments under the jurisdiction of the ~~executive director~~ county manager; administer all public buildings and property under the jurisdiction of the ~~executive director~~ county manager; supervise all communications, and other ancillary services.

I. Seek outside funding sources for capital and special projects, prepare and submit grant proposals to obtain funding for service programs, and ensure that all grant guidelines, reports and services are provided in compliance with funding source requirements.

#### **2.06.080 Budgetary matters –Role of ~~executive director~~ county manager.**

The ~~executive director~~ county manager shall:

A. Administer the development of procedures for preparation of budgets; develop operating and capital budget estimates and targets to guide departments; recommend budgets and staffing levels to the board of county commissioners; project budget needs; review and comment on justifications for funding requests; account for variances between projected and actual expenditures;

B. Recommend to the board of county commissioners an annual county operating budget based upon long-range plans for acquiring, constructing or improving buildings, roads and other county facilities; make recommendation to the board on the acquisition and disposition of real property, easements and rights-of-way;

C. Establish a control system or systems to assure that the various county departments and other agencies under the jurisdiction of the board of county commissioners are operating within their respective budgets; make recommendations to the board regarding requests for unforeseen and unbudgeted expenditures; approve fund transfers and budget revisions within appropriations; establish policies for acquiring additional or replacement fixed assets;

D. Establish a budgetary allotment system and such other expenditure controls which

are necessary or desirable and may authorize department heads to approve fund transfers except those requiring approval of the board of county commissioners under state law;

E. In conjunction with other county staff, keep the board of county commissioners informed of the financial status of the county, and keep the board of county commissioners informed of other budgetary matters which affect the county.

**2.06.090 ~~Executive director~~ County manager – Departmental supervision.**

The ~~executive director~~ county manager shall:

A. Supervise the performance of county departments under the jurisdiction of the county commissioners, *except the public works division*, within the limitations established by state law or the board of county commissioners, by directing the establishment of standards, goals and objectives for quality and quantity of departmental performance and the measure of the performance of individual departments against those standards and goals; assign projects and scrutinize departmental expenditures to assure that they are necessary and proper;

B. *Except with respect to the public works division*, ~~E~~valuate all proposed departmental budgets, staffing levels and programs and recommend those to the board of county commissioners that he/she feels should be approved or modified; periodically evaluate existing department budgets, staffing levels and programs and recommend changes to the board where they are indicated;

C. *Except with respect to the public works division*, ~~E~~valuate departmental organization on a continuing basis; subject to the limitations of state law or the directives of the board of county commissioners, initiate changes in interdepartmental organization, structure, duties or responsibilities when warranted, including authorizing the transfer of equipment between departments; assign space to county departments in county facilities and authorize budgeted out-of-county travel and in-county business expense in accordance with rules and regulations prepared, based upon policies established by the board; recommend to the board of county commissioners the transfer of positions between departments and consolidation or combining of county offices, departments, positions or units;

D. *Except with respect to the public works division*, ~~E~~valuate appointed department head performance, under the direction of the board of county commissioners, and recommend compensation in accordance with demonstrated performance; confer with department heads as necessary to discuss any shortcomings noted and suggest remedial action;

E. *Except with respect to the public works division*, ~~A~~ppoint qualified candidates to fill any vacancies occurring in a department head position, subject to ratification by the county commissioners; transfer, discipline or dismiss appointed department heads, when appropriate, subject to ratification by the county commissioner (all appointed departments heads shall work at will for and report to the ~~executive director~~ county manager);

F. When necessary or upon a department's request, assist department heads in solving problems which inhibit efficient operation within a department or which create friction between departments and be responsible to the board of county commissioners for ensuring that coordination exists between and among the various county departments and offices;

G. Provide, under the direction of the boards of county commissioners, management training and develop leadership qualities among department heads, *excluding those within the public works division*, to build a county management team that can plan for and meet present and future

challenges.

**2.06.100 Employment policies and practices.**

*Except with respect to the public works division, ~~The executive director~~ county manager shall:*

- A. Review all requests to fill permanent and limited-term personnel positions to assure that the position is required and that salary funds are available; authorize advanced step recruitment upon recommendations by department heads; authorize and control the use of extra help and payment for overtime within available funds;
- B. Exercise general supervision over all public buildings and property, whether leased or owned by the county, and such other lands and facilities under the control and jurisdiction of the board of county commissioners;
- C. Supervise building construction, alterations, maintenance and the utilization of county vehicles and equipment;
- D. Supervise all support services.

**2.06.110 ~~Executive director~~ County Manager – General Services.**

*Except with the respect to the public works division, the ~~executive director~~ county manager shall be responsible for and exercise supervision and control over services provided to county departments as follows:*

- A. Direct the purchasing of supplies, materials and equipment through the procedures established by the board of county commissioners and the requirements of the Nevada Local Government Purchasing Act~~;~~.
- B. Exercise general supervision over all public buildings and property, whether leased or owned by the county, and such other lands and facilities under the control and jurisdiction of the board of county commissioners~~;~~.
- C. Supervise building construction, alterations, maintenance and the utilization of county vehicles and equipment~~;~~.
- D. Supervise all support services.

**2.06.120 ~~Executive Director~~ County Manager – Salary and benefits.**

*The salary of the ~~executive director~~ county manager shall be established by the board of county commissioners and be paid by the treasurer in the same manner as the salaries of the other county employees are paid. All benefits conferred upon other county management employees shall be granted to the ~~executive director~~ county manager unless a contract exists that dictates other terms in which case the contract is controlling.*

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**SECTION 2.** This ordinance shall be effective on \_\_\_\_\_, 2018

**Compliance with NRS 244.119.** Pursuant to the requirements of NRS 244.119, the Lander County Clerk is hereby directed to file three (3) copies in the office of the county clerk and two (2) copies of this ordinance with the Librarian of the Supreme Court Law Library.

PROPOSED on the \_\_\_\_\_ day of \_\_\_\_\_, 2018.

PROPOSED by Board Member \_\_\_\_\_

PASSED on the \_\_\_\_\_ day of \_\_\_\_\_, 2018.

AYES: Commissioners \_\_\_\_\_

NAYS: Commissioners \_\_\_\_\_

ABSENT: Commissioners \_\_\_\_\_

By: \_\_\_\_\_  
Doug Mills, Chairperson

**ATTEST:**

By: \_\_\_\_\_  
Sadie Sullivan, County Clerk and Ex-Officio  
Clerk of the Board of Commissioners of Lander  
County, Nevada

**APPROVED AS TO FORM AND LEGALITY:**

By: \_\_\_\_\_  
Theodore C. Herrera  
Lander County District Attorney

EXPLANATION – Matter in blue ***bolded italics*** is new; matter in red strikethrough ~~omitted material~~ is material to be omitted.

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_7\_\_

***THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:***

Discussion for possible action regarding the proposal and reading by Title of Ordinance No. 2018-04 amending Title 2 Chapter 07 of the Lander County code deleting references to supervisors and defining all matters relating thereto, and to modify the duties and powers of the Public Works Director position, and all other matters properly related thereto.

Public Comment:

Background: **attached**

Recommended Action:

**SUMMARY:** AN ORDINANCE AMENDING TITLE 2, CHAPTER 07 OF THE LANDER COUNTY CODE DELETING REFERENCES TO SUPERVISORS AND DEFINING ALL MATTERS RELATING TO, AND TO MODIFY THE DUTIES AND POWERS OF THE PUBLIC WORKS DIRECTOR POSITION; AND OTHER RELATED MATTERS.

**TITLE:** AN ORDINANCE AMENDING TITLE 2, CHAPTER 07 OF THE LANDER COUNTY CODE DELETING REFERENCES TO SUPERVISORS AND DEFINING ALL MATTERS RELATING TO, AND TO MODIFY THE DUTIES AND POWERS OF THE PUBLIC WORKS DIRECTOR POSITION; AND OTHER MATTERS PROPERLY RELATED THERETO.

**THE BOARD OF COUNTY COMMISSIONERS OF THE  
COUNTY OF LANDER, NEVADA DO ORDAIN:**

**SECTION 1:** Lander County Code, Title 2, Chapter 07 is hereby amended to hereafter read as follows:

**Chapter 2.06**

**PUBLIC WORKS DIRECTOR**

**Sections:**

- 2.07.010 Purpose.
- 2.07.020 Public works ~~office~~ *director* – Generally.
- 2.07.030 Appointment – Qualifications – Removal from Office.
- 2.07.040 Limitations on appointment of former elected officer.
- 2.07.050 Administrative powers and duties.
- 2.07.060 Limitation on administrative powers and duties of county commissioners.
- 2.07.070 County administration.
- 2.07.080 ~~Reserved~~ *Public works director – Departmental supervision.*
- 2.07.090 Employment policies and practices.
- 2.07.100 Public works ~~supervisor~~ *director* – General services.
- 2.07.110 Public works ~~supervisors~~ *director* – Salary and benefits.

#### **2.07.010 Purpose.**

It is the intent of the board of county commissioners, in adopting this chapter, to create the position of Lander County public works ~~supervisor~~ *director* to provide the public works and recreation division of the Lander County government with ~~supervisors~~ *a director* who, under the direction of the ~~executive director~~ *board of county commissioners*, shall provide effective, centralized administration for such public works and recreation division and to define the duties, responsibilities, authority and qualifications thereof. *The county manager will have authority over public works director for day to day operations.*

#### **2.07.020 Public works ~~office~~ *director* – Generally.**

A. There shall be in the county a public works and recreation division, under *the* public works ~~supervisors~~ *director*, who shall be appointed by and serve at the pleasure of the ~~executive director~~ *board of county commissioners* and/or on such other contractual terms as may be agreed upon by the parties.

B. The public works ~~supervisors are~~ *director* is a public officers as classified by the Nevada Revised Statutes.

#### **2.07.030 Appointment – Qualifications – Removal from office.**

A. The public works ~~supervisors~~ *director* shall:

1. Be chosen upon the basis of any combination of training, education and experience that would provide the required knowledge, skills and abilities to perform the duties set forth in this chapter which would typically include, as an example, graduation from high school or equivalent with a minimum of ten years experience in ~~construction~~, road maintenance ~~and~~ *or* construction, or experience in water and sewer operations in a supervisory capacity for a minimum of five years. Possession of an Associate's degree with major course work in engineering or business administration is an advantage;

2. Be appointed by and serve at the pleasure of the ~~executive director~~ *board of county commissioners* and may be removed from office by a majority vote of the board of county commissioners. ~~A~~ *The* public works ~~supervisor~~ *director* shall provide thirty days' notice to the county of his/her intent to resign from office;

3. Maintain residence within the county during his/her tenure in office.

B. The board of commissioners may contract with the ~~a~~ *the* public works ~~supervisor~~ *director* to receive severance pay. No severance shall be paid in the event of termination for good cause as defined in the county's policy manual *and/or contract if pertinent.*

#### **2.07.040 Limitations on appointment of former elected officer.**

No person who is or has been an elected officer of Lander County shall be appointed public works ~~supervisor~~ *director* unless he/she has been out of office for at least six months prior to the date of appointment.

#### **2.07.050 Administrative powers and duties.**

A. The public works ~~supervisors~~ *director* shall be the administrative officers of the public works division of the county and shall be responsible to the ~~executive director~~ *board of county*

*commissioners* for the proper and efficient administration of ~~their particular~~ *his/her* department. To this end, the public works ~~supervisors~~ *director* shall have those powers and duties set forth in this chapter and as reasonably implied therefrom and shall be authorized to assign or delegate the administration of these duties to any department or person under that public works ~~supervisor's~~ *director's* control, subject to the ~~executive director's~~ *lander county commissioners* instructions and any limitations imposed by law.

B. This declaration of powers and duties shall not be interpreted to authorize the public works ~~supervisors~~ *director* to manage or control performance of the duties of elected or appointed county officials whose duties and authority are expressly declared by statute or necessarily implied therefrom.

~~C. The public works supervisors shall have a division of responsibilities as may from time to time be determined by resolution of the county commissioners. The initial division of authority and duty shall be by departments as follows:~~

~~1 One supervisor shall be in charge of the Northern Road and Bridge department and the Battle Mountain airport. This supervisor shall be known as the Northern Road and Bridge Supervisor.~~

~~2 One supervisor shall be in charge of the Southern Road and Bridge department and the Kingston and Austin airports. This supervisor shall be known as the Southern Road and Bridge Supervisor.~~

~~3 One supervisor shall be in charge of the Battle Mountain Water and Sewer district, the recreation department, and the county's landfills and trash collection centers. This supervisor shall be known as the Public Works Supervisor.~~

#### **2.07.060 Limitation on administrative powers and duties of county commissioners.**

The board of county commissioners, by enactment of this chapter having delegated administrative responsibilities over certain county governmental activities to the public works ~~supervisors~~ *director*, shall not intervene or detract from this delegation without prior notification to the public works ~~supervisors~~ *director* from the board. No individual commissioner may give instructions or orders to any county employee. Orders or instructions shall be given by majority action of the board to the ~~executive director~~ *county manager* or public works ~~supervisors~~ *director* for implementation. This subsection shall not be interpreted to prevent any county commissioner from seeking and obtaining information about the functioning of county government from any employee.

#### **2.07.070 County administration.**

Within ~~their~~ *his/her* respective departments, the public works ~~supervisors~~ *director* shall:

A. Plan, organize, coordinate and direct the activities and programs of the Northern and Southern Road and Bridge departments and Town of Battle Mountain Water and Sewer department, known as the Public Works Department, and ensure that County roads, bridges, signs, drainage channels, water and sewer systems and airport runways are maintained, operational and in compliance with established specifications.

B. Be responsible for the testing of water and sewer systems in the Town of Battle Mountain.

C. Plan, organize and coordinate and direct the activities and programs of the Battle

Mountain Landfill, and ensure that the Battle Mountain Landfill is maintained, operational and in compliance with established state and federal regulations.

D. Implement and oversee recycling programs, review financial information and recommend rate structure for the Battle Mountain Landfill.

E. Oversee the Austin and Kingston Landfill programs by inspecting landfill sites, responding to complaints, recommending necessary changes in the landfill program, and reviewing landfill regulatory issues, contractors' activities regarding compliance with federal and state regulations.

F. Implement and oversee recycling programs, review financial information and recommend rate structures for the Austin and Kingston Landfills.

G. Be responsible for the appropriate care and maintenance of county owned or controlled public works equipment and facilities, and develop policies and procedures for maintenance and inventory of materials and supplies, including the implementation of loss control measures.

H. Plan, organize and oversee the parks and recreation activities and programs, including parks, ~~pools~~, golf course maintenance, ~~and Battle Mountain Civic Center~~, and cemeteries.

I. Ensure that parks and recreational facilities and cemeteries are maintained, operational and in compliance with established specifications.

J. Plan, organize, schedule and oversee paving of county roads and other capital projects; coordinate capital projects with project engineer, district attorney's office, county departments and other sources as required; recommend to the board of county commissioners and regional transportation board, if necessary, priority road and other capital projects.

K. Determine the need for repair and maintenance of existing public work facilities and equipment; recommend to the county commissioners when purchase of new equipment or construction of new facilities is indicated; consult with engineers and other sources as required.

L. Draft and update public works policies and procedures for review by the ~~executive director~~ *county manager*, board of county commissioners and regional transportation commission, if necessary, to meet program goals and objectives; develop and implement safety standards for the operation of public works equipment and for the construction and maintenance of public works projects; ensure that all employees in the public works are trained and adhere to safety standards.

M. Prepare ~~their~~ *his/her* respective departmental budgets for review and approval by the ~~executive director and~~ *board of* county commissioners; monitor and approve expenditures to ensure compliance with the approved budget and account for variances between projected and actual expenditures.

N. Hire, supervise and evaluate the performance of employees, recommend salary adjustments as needed; ensure employees are trained in their respective areas of responsibilities; investigate and resolve complaints and concerns regarding department services; and draft and update job descriptions.

O. Make written and oral presentations regarding public works services; and represent ~~their individual~~ *his/her* department and the county with other government agencies and in meetings with the public, as requested by ~~the executive director or~~ the *board of* county commissioners.

P. Develop, evaluate, and implement administrative policies and procedures to meet board of county commissioners goals and objectives; supervise and evaluate the performance of

county departments under the jurisdiction of the public works director; direct the establishment of administrative standards, goals, and objectives; coordinate the activities of county departments under the jurisdiction of the public works director to ensure timely, efficient, and effective delivery of programs and services.

Q. Select, direct, and evaluate appointed department heads and other staff; develop and take disciplinary action as authorized by the ~~executive director or~~ board of county commissioners with respect to employees under the jurisdiction of the ~~supervisor~~ *public works director*; develop and implement training programs to enhance the capabilities of staff and to improve the delivery of services; instruct and train staff under the jurisdiction of the ~~supervisor~~ *public works director*; hear, respond to, (and) supervise human resource functions and resolve employee problems, concerns, complaints, and grievances of employees under the supervision of the ~~supervisor~~ *public works director*, and administer discipline (as needed).

R. Analyze proposals and develop recommendations to the ~~executive director~~ *county manager* and board of county commissioners regarding policies, programs and services; analyze information pertaining to county services and operations including policies, programs, methods, budgets, staffing, organization, and capital needs; write reports and correspondence for government agencies, members of the community, and the board as directed.

S. With respect to the employees under the jurisdiction of the ~~supervisor~~ *public works director*, provide direction and support to staff; provide advice and consultation to the members of the board; investigate and resolve complaints and concerns regarding county programs, services, and facilities; act as liaison with other regional, state, and federal agencies on a broad range of matters.

T. Direct the purchasing of supplies, materials, and equipment for the departments under the jurisdiction of the ~~supervisor~~ *public works director*; administer all public buildings and property under the jurisdiction of the ~~supervisor~~ *public works director*; supervise all communications, and other ancillary services within his/her department.

U. With respect to the departments under the jurisdiction of the ~~supervisor~~ *public works director*, seek outside funding sources for capital and special projects, prepare and submit grant proposals to obtain funding for service programs. Ensure that all grant guidelines, reports and services are provided in compliance with funding source requirements.

*V. The public works director will give updates of reports, contracts, projects, etc. to the board of county commission, and provide any necessary day to day operational information to the county manager. The county manager will have authority over the public works director for day to day operations.*

#### **2.07.080**      ~~Reserved~~ *Public works director – Departmental supervision.*

*The public works director shall:*

A. *Supervise the performance of departments within the public works division, within the limitations established by state law or the board of county commissioners, by directing the establishment of standards, goals and objectives for quality and quantity of departmental performance and the measure of the performance of individual departments against those standards and goals; assign projects and scrutinize departmental expenditures to assure that they are necessary and proper;*

B. *Evaluate all proposed departmental budgets, staffing levels and programs, within the*

*public works division, and recommend those to the board of county commissioners that he/she feels should be approved or modified; periodically evaluate existing departmental budgets, staffing levels and programs and recommend changes to the board where they are indicated;*

*C. Evaluate departmental organization within the public works division on a continuing basis; subject to the limitations of state law or the directives of the board of county commissioners, initiate changes in interdepartmental organization, structure, duties or responsibilities when warranted, including authorizing the transfer of equipment between departments; authorize budgeted out-of-county travel and in-county business expense in accordance with rules and regulations prepared, based upon policies established by the board; recommend to the board of county commissioners the transfer of positions between departments within the public works division and consolidation or combining of county offices, departments, positions or units within the public works division;*

*D. Evaluate appointed department head performance within the public works division, under the direction of the board of county commissioners, and recommend compensation in accordance with demonstrated performance; confer with department heads as necessary to discuss any shortcomings noted and suggest remedial action;*

*E. Appoint qualified candidates to fill any vacancies occurring in a department head position with the public works division, subject to ratification by the county commissioners; transfer, discipline or dismiss appointed department heads, when appropriate, subject to ratification by the county commissioners; (all appointed department heads shall work at will for and report to the public works director);*

*F. When necessary or upon a department's request, assist department heads in solving problems which inhibit efficient operation within a department or create friction between departments and be responsible to the board of county commissioners for ensuring that coordination exists between and among the various county departments and offices;*

*G. Provide, under the direction of the board of county commissioners, management training and develop leadership qualities among department heads within the public works division, to build a county management team that can plan for and meet present and future challenges.*

#### **2.07.090      Employment policies and practices.**

The ~~supervisor~~ *public works director* shall within the public works division:

A. Review all requests to fill permanent and limited-term personnel positions to assure that the position is required and that salary funds are available; authorize advanced step recruitment upon recommendations by department heads; authorize and control the use of extra help and payment for overtime within available funds;

B. Supervise the administration of employee relations, classifications, recruitment and selection, affirmative action and management, employee training, personnel policies and procedures and other performance programs.

#### **2.07.100      Public works ~~supervisors~~ *director* – General services.**

The public works ~~supervisors~~ *director* shall be responsible for and exercise supervision and control over services provided within their respective county departments of the public works division as follows:

A. Direct the purchasing of supplies, materials and equipment through the procedures established by the ~~executive director~~ *county manager* and the board of county commissioners and

the requirements of the Nevada Local Government Purchasing Act;

- B. Supervise the utilization of county vehicles and equipment;
- C. Supervise all support services.

**2.07.110 Public works ~~supervisors~~ *director* – Salary and benefits.**

The salary of the public works ~~supervisors~~ *director* shall be established by the board of county commissioners and be paid by the treasurer in the same manner as the salaries of the other county employees are paid. All benefits conferred upon other county management employees shall be granted to the public works ~~supervisors~~ *director unless a contract exists that dictates other terms in which case the contract is controlling.*

**SECTION 2.** This ordinance shall be effective on \_\_\_\_\_, 2018

**Compliance with NRS 244.119.** Pursuant to the requirements of NRS 244.119, the Lander County Clerk is hereby directed to file three (3) copies in the office of the county clerk and two (2) copies of this ordinance with the Librarian of the Supreme Court Law Library.

PROPOSED on the \_\_\_\_\_ day of \_\_\_\_\_, 2018.

PROPOSED by Board Member \_\_\_\_\_

PASSED on the \_\_\_\_\_ day of \_\_\_\_\_, 2018.

AYES: Commissioners \_\_\_\_\_

NAYS: Commissioners \_\_\_\_\_

ABSENT: Commissioners \_\_\_\_\_

By: \_\_\_\_\_  
Doug Mills, Chairperson

**ATTEST:**

By: \_\_\_\_\_  
Sadie Sullivan, County Clerk and Ex-Officio  
Clerk of the Board of Commissioners of Lander  
County, Nevada

**APPROVED AS TO FORM AND LEGALITY:**

By: \_\_\_\_\_  
Theodore C. Herrera  
Lander County District Attorney

EXPLANATION – Matter in blue ***bolded italics*** is new; matter in red strikethrough ~~omitted material~~ is material to be omitted.

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_8\_\_

*THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:*

Discussion and possible action regarding an employment contract for the Lander County Manager, and all other matters properly related thereto.

Public Comment:

Background: **attached**

Recommended Action:

## **Lander County, Nevada County Manager**

### **Employment Agreement**

THIS AGREEMENT is made and entered into this\_\_\_ day of August, 2018 by and between Lander County, Nevada hereinafter referred to as "County", and Keith Westengard, hereinafter referred to as "Employee", both of whom agree and understand as follows:

WHEREAS, County desires to formalize by contract the employment of Employee as the County Manager, who holds office at the pleasure of the Board of the County Commissioners;

WHEREAS, Employee desires to accept such contract with County, under the terms and conditions specified in this Agreement;

WHEREAS, Employee has the education, training, experience, ethics and desire to serve as the County Manager; and

WHEREAS, it is the desire of County to retain the services of Employee as County Manager and to provide proper and legal inducement for him to remain in such employment and to provide, if necessary, a just cause for termination.

NOW, THEREFORE, in consideration of the recitals contained above and the mutual covenants contained herein, the County and Employee agree as follows;

### **AGREEMENT**

#### ***1 Duties***

Employee shall serve as the County Manager of Lander County, Nevada and use his best efforts and devote his full time to perform the functions and duties specified in the Lander County Ordinance LC-2018-03 section 2.06, attached hereto as Exhibit A.

## **2 Term**

2.1 The effective date of this Agreement is August\_\_\_\_, 2018. The term of this Agreement is three (3) years. The term of this Agreement may be unilaterally renewed for another three (3) years by either County or Employee by giving written notice of their intent to renew to the other party at least sixty (60) days prior to the expiration of this contract.

2.2 If either the County or Employee chooses to allow the contract to expire then said party shall give written notice of their intent at least sixty (60) days prior to the expiration date of this contract.

2.3 If County refuses to comply with any provision benefiting Employee under this Agreement, then Employee may, at his option, deem this Agreement terminated at the date of such reduction or refusal to comply and County shall be obligated to pay severance as required under Section 3 of this Agreement. Such severance shall be in addition to any other compensation, including any vacation accrued and sick accrued.

## **3 Compensation**

3.1 Employee shall be paid \$118,091.48 for year 2018, not inclusive of benefits.

3.2 Employee may receive up to a 5% increase in salary for each subsequent year worked pursuant to this Agreement or extension in Section 2.1 of this Agreement, based on yearly evaluations.

3.3 The County shall provide for membership and licensure fees in organizations. The County shall provide tuition, fees and expenses to include travel, accommodations and meals for attending such conferences, seminars, meeting and training.

3.4 Employee's salary shall not be reduced or altered from that set forth in Sections 3.1 and 3.2 without a signed, addendum to this Agreement between the Parties.

#### **4 Termination**

4.1 The County may terminate Employee's employment under this Agreement at any time for Just Cause. For purposes of this Agreement, termination for just cause is defined as conduct that constitutes a crime, except for misdemeanor traffic citations; conduct that constitutes a knowing and willful violation of a law governing the conduct of public officers or employees; conduct that violates the Lander County policies; or the breach of this Agreement by Employee. In such event, County shall give written notice of its desire to terminate Employee for just cause and the effective date of the termination shall be specified. The notice shall be given in accordance with Section 5 below. If Employee is terminated for just cause, Employee shall not be entitled to receive Severance Pay, but will be entitled to all other benefits that are accrued and paid out subject to this agreement.

4.2 In the event the County terminates Employee for no cause and Employee is willing and able to perform his duties as County Manager, then County shall pay severance equivalent to one (1) year salary calculated at the time employment ends and paid in a lump sum. Such severance shall be in addition to any other compensation, including any vacation accrued and sick accrued.

4.3 If the County reduces Employees salary, or if the County refuses to comply with any provision benefiting Employee under this Agreement, then Employee may, at his option, deem this Agreement terminated at the date of such reduction or refusal to comply and the County shall be obligated to pay severance as required under Section 3.1 of this Agreement. Such severance shall be in addition to compensation for any annual leave and sick and disability leave accrued.

4.4 Nothing in this Agreement shall prevent, limit or otherwise interfere with the right of Employee to resign at any time from his position with the County subject only to the provision that Employee gives a thirty (30) day written notice to the County Commissioner(s). If Employee resigns, Employee shall not be entitled to receive Severance Pay, but will be entitled to all other benefits that are accrued and paid out subject to this agreement.

## ***5 Personal Days***

5.1 Employee shall be entitled to all accrued annual leave commencing on the execution date of this Agreement to continue for each subsequent year and/or extension in Section 2.1 of this Agreement.

5.2 Employee shall be entitled to carry over any annual leave to the following year. At no time shall Employee lose annual leave for failure to take such leave in a calendar year. In the event of resignation, retirement or termination of Employee, Employee shall be paid the cash equivalent in a lump sum for all accrued annual leave.

## ***6 Sick and Disability Leave***

6.1 Employee shall be entitled to 720 hours of sick or disability leave commencing on the execution date of this Agreement to continue for each subsequent year and/or extension in Section 2.1 of this Agreement.

6.2 Employee shall be entitled to carry over sick and disability leave to the following year. At no time shall Employee lose sick and disability leave for failure to take such leave in a calendar year. In the event of resignation, retirement or termination of Employee, Employee shall be paid the cash equivalent in a lump sum for sick or disability leave.

## ***7 Health and Life Insurance***

7.1 Employee shall be eligible for health insurance benefits as provided other County employees, and the County shall pay the premiums in full.

7.2 Employee shall be eligible for County disability and life insurance benefits similar to those provided by County for other management employees of the County.

## **8 Retirement**

8.1 Employee shall be eligible for Public Employee Retirement System (PERS), employer's share of contribution to FICA and Medicare, and an employee paid deferred compensation plan according to the terms as made available to other management employees of the County. County agrees to pay PERS retirement for Employee including employer share and employee share, as is allowed by state law by contract. If PERS benefits are increased for other management employees of the County, then Employee shall receive the same benefit of any such increase at the same rate and interval.

## **9 Other Terms and Conditions of Employment**

9.1 Employee shall be eligible for all holidays and other employee benefits not specifically set forth herein for which other management employees of the County are eligible.

9.2 Employee may hold a job with another organization and/or business as long as he performs his job responsibilities set forth in Section 1 of this Agreement.

## **10 Bonding**

10.1 County shall bear the full cost of fidelity or other bonds required of Employee.

## **11 Indemnification**

11.1 County agrees to defend, hold harmless, and indemnify Employee from any and all demands, claims, suits, actions and legal proceedings brought against Employee in his official capacity as agent and Employee of the County to the extent Employee was acting within the scope of his employment or duties.

## ***12 General Provisions***

12.1 This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter contained herein, and there are no covenants, terms or conditions, express or implied, other than as set forth or referred to herein. This Agreement supersedes all prior agreements between the parties hereto relating to all or part of the subject matter herein. No representations, oral or written, modifying or contradicting the terms of this Agreement have been made by any party except as contained herein. This Agreement may not be amended, modified or canceled except as provided herein or by written agreement of the parties signed by the party against whom enforcement is sought.

12.2 If any provision, or any portion thereof, contained in this Agreement is held unconstitutional, invalid or unenforceable, the remainder of this Agreement, or portion thereof, shall be deemed severable, shall not be affected, and shall remain in full force and effect.

12.3 This Agreement shall be governed by and construed in accordance with the laws of the State of Nevada, without reference to principles governing choice or conflicts of laws.

**INTENTIONALLY LEFT BLANK**

IN WITNESS WHEREOF the Employer has caused this agreement to be executed by its duly authorized officers and the Employee has set his hand as of the date first above written. SIGNED, SEALED AND DELIVERED in the presence of:

\_\_\_\_\_  
Date  
Keith Westengard

\_\_\_\_\_  
Date  
Chair Commissioner

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_9\_\_

***THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:***

Discussion and possible action regarding an employment contract for the Lander County Public Works Director, and all other matters properly related thereto.

Public Comment:

Background: **attached**

Recommended Action:

**Lander County, Nevada Public Works Director**

**Employment Agreement**

THIS AGREEMENT is made and entered into this\_\_\_ day of August, 2018 by and between Lander County, Nevada hereinafter referred to as "County", and Bartolo Ramos, hereinafter referred to as "Employee", both of whom agree and understand as follows:

WHEREAS, County desires to formalize by contract the employment of Employee as the Public Works Director, who holds office at the pleasure of the Board of the County Commissioners;

WHEREAS, Employee desires to accept such contract with County, under the terms and conditions specified in this Agreement;

WHEREAS, Employee has the education, training, experience, ethics and desire to serve as the County Public Works Director; and

WHEREAS, it is the desire of County to retain the services of Employee as County Public Works Director and to provide proper and legal inducement for him to remain in such employment and to provide, if necessary, a just cause for termination.

NOW, THEREFORE, in consideration of the recitals contained above and the mutual covenants contained herein, the County and Employee agree as follows;

**AGREEMENT**

***1 Duties***

Employee shall serve as the Public Works Director of Lander County, Nevada and use his best efforts and devote his full time to perform the functions and duties specified in the Lander County Ordinance LC-2018-04 section 2.07, attached hereto as Exhibit A.

## **2 Term**

2.1 The effective date of this Agreement is August\_\_\_\_\_, 2018. The term of this Agreement is three (3) years. The term of this Agreement may be unilaterally renewed for another three (3) years by either County or Employee by giving written notice of their intent to renew to the other party at least sixty days (60) prior to the expiration of this contract.

2.2 If either the County or Employee chooses to allow the contract to expire then said party shall give written notice of their intent at least sixty (60) days prior to the expiration date of this contract.

2.3 If County refuses to comply with any provision benefiting Employee under this Agreement, then Employee may, at his option, deem this Agreement terminated at the date of such reduction or refusal to comply and County shall be obligated to pay severance as required under Section 3 of this Agreement. Such severance shall be in addition to any other compensation, including any vacation accrued and sick accrued.

## **3 Compensation**

3.1 Employee shall be paid \$97,101.94 for year 2018, not inclusive of benefits.

3.2 Employee may receive up to a 5% increase in salary for each subsequent year worked pursuant to this Agreement or extension in Section 2.1 of this Agreement, based on yearly evaluations.

3.3 The County shall provide for membership and licensure fees in organizations. The County shall provide tuition, fees and expenses to include travel, accommodations and meals for attending such conferences, seminars, meeting and training.

3.4 Employee's salary shall not be reduced or altered from that set forth in Sections 3.1 and 3.2 without a signed, addendum to this Agreement between the Parties.

#### **4 Termination**

4.1 The County may terminate Employee's employment under this Agreement at any time for Just Cause. For purposes of this Agreement, termination for just cause is defined as conduct that constitutes a crime, except for misdemeanor traffic citations; conduct that constitutes a knowing and willful violation of a law governing the conduct of public officers or employees; conduct that violates the Lander County policies; or the breach of this Agreement by Employee. In such event, County shall give written notice of its desire to terminate Employee for just cause and the effective date of the termination shall be specified. The notice shall be given in accordance with Section 5 below. If Employee is terminated for just cause, Employee shall not be entitled to receive Severance Pay, but will be entitled to all other benefits that are accrued and paid out subject to this agreement.

4.2 In the event the County terminates Employee for no cause and Employee is willing and able to perform his duties as Public Works Director, then County shall pay severance equivalent to one (1) year salary calculated at the time employment ends and paid in a lump sum. Such severance shall be in addition to any other compensation, including any vacation accrued and sick accrued.

4.3 If the County reduces Employees salary, or if the County refuses to comply with any provision benefiting Employee under this Agreement, then Employee may, at his option, deem this Agreement terminated at the date of such reduction or refusal to comply and the County shall be obligated to pay severance as required under Section 3.1 of this Agreement. Such severance shall be in addition to compensation for any annual leave and sick and disability leave accrued.

4.4 Nothing in this Agreement shall prevent, limit or otherwise interfere with the right of Employee to resign at any time from his position with the County subject only to the provision that Employee gives a thirty (30) day written notice to the County Commissioner(s). If EMPLOYEE resigns, EMPLOYEE shall not be entitled to receive Severance Pay, but will be entitled to all other benefits that are accrued and paid out subject to this agreement.

## ***5 Personal Days***

5.1 Employee shall be entitled to all accrued annual leave commencing on the execution date of this Agreement to continue for each subsequent year and/or extension in Section 2.1 of this Agreement.

5.2 Employee shall be entitled to carry over any annual leave to the following year. At no time shall Employee lose annual leave for failure to take such leave in a calendar year. In the event of resignation, retirement or termination of Employee, Employee shall be paid the cash equivalent in a lump sum for all accrued annual leave.

## ***6 Sick and Disability Leave***

6.1 Employee shall be entitled to 720 hours of sick or disability leave commencing on the execution date of this Agreement to continue for each subsequent year and/or extension in Section 2.1 of this Agreement.

6.2 Employee shall be entitled to carry over sick and disability leave to the following year. At no time shall Employee lose sick and disability leave for failure to take such leave in a calendar year. In the event of resignation, retirement or termination of Employee, Employee shall be paid the cash equivalent in a lump sum for sick or disability leave.

## ***7 Health and Life Insurance***

7.1 Employee shall be eligible for health insurance benefits as provided other County employees, and the County shall pay the premiums in full.

7.2 Employee shall be eligible for County disability and life insurance benefits similar to those provided by County for other management employees of the County.

## **8 Retirement**

8.1 Employee shall be eligible for Public Employee Retirement System (PERS), employer's share of contribution to FICA and Medicare, and an employee paid deferred compensation plan according to the terms as made available to other management employees of the County. County agrees to pay PERS retirement for Employee including employer share and employee share, as is allowed by state law by contract. If PERS benefits are increased for other management employees of the County, then Employee shall receive the same benefit of any such increase at the same rate and interval.

## **9 Other Terms and Conditions of Employment**

9.1 Employee shall be eligible for all holidays and other employee benefits not specifically set forth herein for which other management employees of the County are eligible.

9.2 Employee may hold a job with another organization and/or business as long as he performs his job responsibilities set forth in Section 1 of this Agreement.

## **10 Bonding**

10.1 County shall bear the full cost of fidelity or other bonds required of Employee.

## **11 Indemnification**

11.1 County agrees to defend, hold harmless, and indemnify Employee from any and all demands, claims, suits, actions and legal proceedings brought against Employee in his official capacity as agent and Employee of the County to the extent Employee was acting within the scope of his employment or duties.

## ***12 General Provisions***

12.1 This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter contained herein, and there are no covenants, terms or conditions, express or implied, other than as set forth or referred to herein. This Agreement supersedes all prior agreements between the parties hereto relating to all or part of the subject matter herein. No representations, oral or written, modifying or contradicting the terms of this Agreement have been made by any party except as contained herein. This Agreement may not be amended, modified or canceled except as provided herein or by written agreement of the parties signed by the party against whom enforcement is sought.

12.2 If any provision, or any portion thereof, contained in this Agreement is held unconstitutional, invalid or unenforceable, the remainder of this Agreement, or portion thereof, shall be deemed severable, shall not be affected, and shall remain in full force and effect.

12.3 This Agreement shall be governed by and construed in accordance with the laws of the State of Nevada, without reference to principles governing choice or conflicts of laws.

**INTENTIONALLY LEFT BLANK**

IN WITNESS WHEREOF the Employer has caused this agreement to be executed by its duly authorized officers and the Employee has set his hand as of the date first above written. SIGNED, SEALED AND DELIVERED in the presence of:

\_\_\_\_\_  
Date  
Bartolo Ramos

\_\_\_\_\_  
Date  
Chair Commissioner

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_10\_\_

***THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:***

Discussion and possible action to appoint/reappoint two individuals to serve on the Lander County Economic Development Authority Board with terms expiring June 30, 2020 and to consider the following applicants:

a) George Fennemore;

b) Sarah Edgar;

And all other matters properly related thereto.

Public Comment:

Background: There are currently three vacancies on LEDA, an 8 member board consisting of 6 public and 2 State/Federal members. NRS 274 (Resolution 2008-05) See letters of interest attached.

Recommended Action: Appoint Sarah Edgar and George Fennemore to fill two vacancies on the Lander County Economic Development Authority Board with terms expiring June 30, 2020.

LANDER COUNTY  
ADMINISTRATION

2018 JUL -5 AM 8:36



CORTEZ GOLD MINES  
HC66 Box 1250  
Crescent Valley, Nevada  
USA 89821-1250

Tel (775) 468-4400  
Fax (775) 468-4496

June 29, 2018

Ms. Kyla Bright  
Lander County Planning Coordinator  
50 State Route 305  
Battle Mountain, NV 89820

**Re: Interest in serving on the Lander County Economic Development Authority (LEDA)**

Dear Ms. Bright:

I would be interested in serving another term as a board member on the Lander County Economic Development Authority (LEDA).

I am an employee of Barrick Cortez, Inc., a large gold mining operation located in Lander County, and would be participating on the LEDA Board as part of my job responsibility for Barrick Cortez. I am currently a resident of Elko County.

I have served on the LEDA Board for the past seven years and have participated in several economic development projects with Lander County over the past 14 years. I would be available to participate in the monthly meetings, but may need to occasionally participate via phone because I do not work or reside in Battle Mountain.

I look forward to hearing from LEDA regarding serve as a board member. If you have any questions regarding this request, please contact me at 775-397-8458.

Sincerely,

A handwritten signature in blue ink, appearing to read "G. Fennemore".

George Fennemore

LANDER COUNTY  
ADMINISTRATION

11 July 2018

2018 JUL 10 PM 2:38

Lander County Commissioners  
50 State Route 305  
Battle Mountain, NV 89820

**Re: Interest in serving on the Lander County Economic Development authority (LEDA)**

Dear Commissioners:

I am interested in serving my community for another term as a board member of the Lander County Economic Development Authority (LEDA). I am also an employee of Barrick Cortez, Inc. and would like to continue to participate on the LEDA Board as part of my job responsibility. I have served on the LEDA board for many years and desire to continue my contributions to our community in this capacity.

I look forward to hearing from LEDA regarding service as a board member. If you have any questions regarding this request, please contact me at 775.397.0508.

Sincerely,

A handwritten signature in black ink, appearing to be 'SE', with a long horizontal line extending to the right.

Sarah Edgar

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_11\_\_

*THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:*

Update on budget review, contracts, financial update, and all other matters properly related thereto.

Public Comment:

Background:

Recommended Action: **This is a non-action item.**

## AGENDA REQUEST FORM

MEETING DATE: August 9, 2018

NAME: Cindy Benson

ADDRESS: 50 State Route 305, Battle Mountain, NV 89820

PHONE (H): \_\_\_\_\_ WORK: 775-635-2573 FAX: 775-635-5332

WHICH NUMBER SHOULD WE CALL DURING NORMAL BUSINESS HOURS: Work

WHO WILL BE ATTENDING THE MEETING: Cindy Benson

JOB TITLE: Lander County Fiscal Officer

SPECIFIC REQUEST TO BE PLACED ON THE AGENDA: Update on financials.

WHAT ACTION WOULD YOU LIKE THE BOARD TO TAKE TO RESOLVE THIS ISSUE?

ARE THERE ANY COSTS ASSOCIATED WITH YOUR REQUEST? YES \_\_\_\_\_ NO X

AMOUNT: \_\_\_\_\_

HAS THIS ISSUE BEEN DISCUSSED AT A PRIOR COMMISSION MEETING? YES \_\_\_\_\_ NO \_\_\_\_\_

WHEN? \_\_\_\_\_

WILL YOU BE PRESENTING WRITTEN INFORMATION AT THE MEETING? YES \_\_\_\_\_ NO X

HAVE YOU DISCUSSED THIS ISSUE WITH THE AFFECTED DEPT HEAD? YES \_\_\_\_\_ NO \_\_\_\_\_

**FOR REVIEW BY:**

CLERK _____	SHERIFF _____	JUSTICE COURT _____
ASSESSOR _____	WELFARE _____	DISTRICT ATTORNEY _____
BUILDING _____	PLANNING DEPT. _____	TREASURER _____
AIRPORT _____	FINANCE DEPT. _____	SWIM. POOL _____
ROAD & BRIDGE _____	RECORDER _____	HOSPITAL _____
EXEC DIRECTOR _____	WATER & SEWER _____	CIVIC CENTER _____
FAIR & REC. _____	GOLF COURSE _____	COMMISSIONERS _____

THE EXECUTIVE DIRECTOR RESERVES THE RIGHT TO REJECT OR RECOMMEND TABLING ALL AGENDA REQUESTS FOR INSUFFICIENT INFORMATION.

ALL INFORMATION STATED IS CORRECT AND TRUE TO MY KNOWLEDGE.

SIGNATURE: Cindy Benson

***Lander County Finance Department***  
***Cindy Benson Fiscal Officer***



August 9, 2018

- 1) Accounts Receivable for the 4<sup>th</sup> Quarter of FY 17/18 are as follows:

Water	186,142.77
Sewer	200,881.70
W&S Misc.	98.00
<u>Landfill</u>	<u>35,644.15</u>
Total A/R	422,766.62

- 2) Outstanding balances as of July 2018 are:

Water	(2,760.89)
Sewer	(1,049.34)
W&S Misc.	500.98
<u>Landfill</u>	<u>14,273.75</u>
Total O/S	10,964.50

- 3) Quarterly Fund Balance Report for the 4<sup>th</sup> Quarter of FY 17/18 is as follows:

The total revenue for the 4<sup>th</sup> quarter is \$32,002,532 which is up 310% compared to last year's 4<sup>th</sup> quarter. Total expenses for the 4<sup>th</sup> quarter is \$8,778,149 which is down by .29% compared to last year's 4<sup>th</sup> quarter. The total revenue for FY 17/18 is \$50,698,566 which is up 40% compared to FY 16/17. The total expenses for FY 17/18 is down 101% compared to FY 16/17.

- 4) Fund Balance Report for FY 17/18 shows that there is an increase of 13% For the Estimated Ending Fund Balance compared to the Beginning Fund Balance.
- 5) I have also included a 5 Year Comparison on Revenue and Expenditures Report for your review.
- 6) Adjusting Budget entries were made for fiscal year 2017/2018 to clean up Over-expenditures. They are follows:  
District Attorney-I moved \$10,220.00 from the Unemployment line to the

Salaries & Wages line.

Health Nurse-I moved \$8,800.00 from the Public Health Nurse Contract line to the Salaries & Wages line.

B.M. Pool-I moved \$30,000.00 from the Unemployment line to the Utilities line.

Building & Maintenance-I moved \$200.00 from the PACT line to the Salaries & Wages line.

QUARTERLY FUND BALANCE REPORT  
FY 2017-2018  
100%

	Revenue									Expenses											Net Revenue - Expense	Net Revenue - Expense
	1st Quarter Ending 09/30/16	1st Quarter Ending 09/30/17	2nd Quarter 12/31/16	2nd Quarter 12/31/17	3rd Quarter 03/31/17	3rd Quarter 03/31/18	4th Quarter 06/30/17	4th Quarter 06/30/18	Total Revenue FY 2016-2017	Total Revenue FY 2017-2018	1st Quarter 09/30/16	1st Quarter 09/30/17	2nd Quarter 12/31/16	2nd Quarter 12/31/17	3rd Quarter 03/31/17	3rd Quarter Ending 03/31/18	4th Quarter 06/30/17	4th Quarter Ending 06/30/18	Total Expenses FY 2016-2017	Total Expenses FY 2017-2018		
PER Monthly Cost Reports																						
Governmental Funds:																						
General Fund	1,924,614	1,906,638	3,147,343	1,727,797	5,721,129	7,140,110	1,436,081	3,679,917	12,229,167	14,454,462	2,629,115	2,730,246	2,539,856	(2,570,165)	2,501,905	15,314	2,855,280	502,857	10,526,156	678,252	1,703,011	13,776,210
Road & Bridge	282,142	414,971	427,759	299,427	803,755	897,108	822,908	408,169	2,336,564	2,019,675	338,002	347,278	441,109	458,740	436,618	485,781	482,171	574,620	1,697,900	1,866,419	638,664	153,256
Indigent	76,382	96,408	67,989	59,481	251,012	254,533	194,452	103,979	589,835	514,401	90,670	63,894	40,336	66,870	39,172	(101,391)	37,326	205,440	207,504	234,813	382,331	279,588
State Medical Indigent	81,542	107,257	556,715	49,768	267,594	267,436	207,318	1,095,915	1,113,169	1,520,376	8,737	9,050	34,509	49,642	33,579	25,832	95,181	435,098	172,006	519,622	941,163	1,000,754
AG Extension	15,272	19,155	13,481	10,101	49,821	49,831	38,623	2,623	117,197	81,710	11,798	15,527	17,856	18,893	17,580	15,322	25,929	33,831	73,163	83,573	44,034	(1,864)
Aged Services	109,826	123,230	109,765	74,256	305,853	325,536	268,981	39,591	794,425	562,613	71,589	76,549	87,463	88,676	89,391	90,578	95,844	108,288	344,287	364,091	450,138	198,522
Lander County Landfill	83,797	97,190	367,498	78,223	184,640	192,139	155,587	717,830	791,522	1,085,382	51,250	75,090	78,549	90,331	72,658	81,320	200,440	140,418	402,897	387,159	388,625	698,223
LC Airport Fund	012 45,602	58,710	51,065	42,116	140,937	140,143	106,077	11,214	343,681	252,183	32,404	38,541	40,150	25,773	32,798	33,089	22,556	36,853	127,908	134,256	215,773	117,927
Austin Cap Acquisitions	019 191	(190)	181	(201)	3	(153)	(940)	1,952	(565)	1,408	0	0	0	0	0	0	0	0	0	0	(565)	1,408
Austin Town	020 6,200	5,291	49,356	10,543	7,188	10,212	7,296	8,078	70,040	34,124	14,181	20,052	6,027	16,020	5,328	7,472	7,539	7,555	33,075	51,099	36,965	(16,974)
Mt Lewis	023 450	3,075	675	8,175	2,700	2,475	4,450	7,075	8,275	20,800	36,338	1,566	368	5,937	2,909	820	1,250	1,467	40,865	9,790	(32,590)	11,010
BM Town	025 33,267	12,451	89,956	88,410	67,777	107,199	94,616	82,689	285,616	290,749	147,200	77,074	35,507	75,522	18,763	15,857	121,565	134,333	323,035	302,786	(37,419)	(12,038)
Building & Equip	029 0	0	618,134	0	0	0	3,442,034	8,021,562	4,060,168	8,021,562	169,143	140,433	146,806	437,708	273,565	381,129	545,374	773,337	1,134,888	1,732,607	2,925,280	6,288,955
Cap Acquisition Fund	031 30,428	39,979	207,459	18,547	99,694	99,666	77,260	408,416	414,841	566,608	6,564	(1,387)	1,583	(1,474)	21	11,931	(6,884)	14,185	1,284	23,255	413,557	543,353
Culture & Recreation	052 104,013	1,171,014	91,407	(916,503)	340,490	332,404	260,299	1,091,339	796,209	1,678,254	290,230	340,496	213,495	39,176	148,433	228,136	330,912	851,146	983,070	1,458,954	(186,861)	219,300
BM Aquisition	054 1,125	(1,116)	1,065	(1,185)	17	(904)	(5,536)	11,497	(3,329)	8,292	0	0	0	0	0	0	0	0	0	0	(3,329)	8,292
CCP Fund	055 2,550	0	9,562,933	55	175,000	1,149,614	0	15,693,923	9,740,483	16,843,592	1,911,604	249,585	6,236,263	2,123,057	3,263,256	150,919	3,348,609	4,395,068	14,759,732	6,918,629	(5,019,249)	9,924,963
Emergency Maint	056 0	0	0	0	0	0	0	0	0	0	13,425	5,700	0	74,303	56,236	167,421	0	62,823	69,661	310,247	(69,661)	(310,247)
Reserve Fund	057 53,081	48,437	83,474	58,694	0	74,546	128,626	115,866	265,181	297,543	0	0	0	0	0	0	0	0	0	0	265,181	297,543
Airport Capital	380 0	0	206,045	557,455	0	77,795	0	(174,608)	206,045	460,642	7,273	4,187	768,428	356,131	128,681	159,014	309,865	232,880	1,214,247	752,212	(1,008,202)	(291,570)
BM Water Operations	226 270,872	204,471	188,516	171,394	125,143	114,490	164,774	203,253	749,305	693,608	526,663	92,786	15,958	132,046	108,169	115,324	220,739	146,555	871,529	486,711	(122,224)	206,896
BM Sewer Dept	236 239,107	171,677	340,146	307,209	291,500	339,445	405,084	472,252	1,275,837	1,290,583	438,801	68,950	100,141	124,875	82,786	95,831	110,173	121,395	731,901	411,051	543,936	879,531
TOTAL QUARTERLY BALANCE	3,360,461	4,478,647	16,180,962	2,643,762	8,834,253	11,573,625	7,807,991	32,002,532	36,183,667	50,698,566	6,794,987	4,355,617	10,804,404	1,612,061	7,311,848	1,979,699	8,803,869	8,778,149	33,715,108	16,725,526	2,468,559	33,973,040

The following are Fiduciary Funds (established and held in trust for different purposes) or funds restricted for a special purpose.

Fund 015 Economic Development Grants	
Fund 016 DOE Grants	
Funds 34, 35, 36, 37, Kingston	
Fund 40 TV District	
Funds 45 & 46 Fair & Rec	
Fund 50 S&W#2	
Fund 60 Hospital	
Fund 70 School	
Fund 85 Admin Assessment	
Fund 88 & 89 Genetic Marker	
Fund 90 State	
Fund 91 92 93 94 95	
Funds 284 & 285 &286 Court Funds	
Fund 300 Tech Funds Funded by Net Proceeds	
Recorder fees and Assessor Fees	
Capital Funds for Infrastructure & Equip	
Proprietary Funds	

**FUND BALANCE REPORT**  
**FY 2017-2018**

100%		Audited Beginning					Est. Ending Fund
	Fund #	Balance 30-Jun-17	Budgeted Revenue	Received Revenue	Budgeted Expense	Current Expense	Balance FY18
<b>Governmental Funds:</b>							
General Fund	001	43,214,314	13,356,200	14,454,462	15,576,886	11,903,183	45,765,593
Road & Bridge	002	5,751,887	2,231,512	2,019,675	2,291,210	1,866,419	5,905,143
Indigent	003	1,795,409	484,358	514,401	727,860	234,813	2,074,997
State Medical Indigent	004	6,930,851	614,930	1,520,376	1,390,610	519,622	7,931,605
AG Extention	005	273,217	96,233	81,710	104,162	83,573	271,354
Aged Services	009	2,446,647	657,993	562,613	642,770	364,091	2,645,169
Lander County Landfill	011	7,289,140	391,778	1,085,352	592,665	387,159	7,987,333
LC Airport Fund	012	1,769,061	277,921	252,183	211,305	134,256	1,886,988
Austin Cap Acquisitions	019	32,286	1,626	1,408	12,000	-	33,694
Austin Town	020	126,246	34,686	34,124	63,395	51,099	109,271
Mt Lewis	023	238,693	13,500	20,800	46,772	9,790	249,703
BM Town	025	905,828	341,351	290,749	464,950	302,786	893,791
Building & Equip	029	10,060,283	-	8,021,562	4,622,000	1,732,607	16,349,238
Cap Acquisition Fund	031	3,704,066	193,759	566,608	142,500	23,255	4,247,419
Culture & Recreation	052	6,771,740	1,109,393	1,678,254	2,135,404	1,458,954	6,991,040
BM Acquisition	054	196,963	9,568	8,292	40,000	-	205,255
CCP Fund	055	35,602,697	447,790	16,843,592	17,511,117	6,918,630	45,527,659
Emergency Maint	056	3,137,222	-	-	800,000	310,247	2,826,975
Reserve Fund	057	1,120,543	85,000	297,543	485,000	-	1,418,086
Airport Capital	380	3,160,823	1,910,500	460,641	2,386,587	752,212	2,869,252
BM Water Operations	226	20,151,992	960,444	693,608	1,185,595	486,711	20,358,889
BM Sewer Dept	236	21,403,360	1,024,030	1,290,583	1,137,770	411,051	22,282,892
<b>AUDITED FUND BALANCES</b>		<b>176,083,268</b>	<b>24,242,572</b>	<b>50,698,536</b>	<b>52,570,558</b>	<b>27,950,458</b>	<b>198,831,346</b>

### 5 Year Comparison on Revenue & Expenditure Reports

Fiscal Year	Revenue	Expenses	Difference	Beginning Balance	Ending Balance
2013/2014	41,426,003	33,434,463	7,991,540	173,743,446	181,734,986
2014/2015	44,488,629	45,282,741	(794,112)	181,211,856	180,417,744
2015/2016	30,704,309	34,181,267	(3,476,958)	180,417,744	176,940,786
2016/2017	41,382,241	37,948,542	3,433,699	176,940,786	176,083,268
2017/2018	50,698,536	27,950,458	22,748,078	176,083,268	198,831,346

Subject to change due to Audit Adjustments

LANDER COUNTY COMMISSIONERS MEETING  
8/9/2018

Agenda Item Number \_\_12\_\_

*THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:*  
Correspondence/reports/potential upcoming agenda items.

Public Comment:

Background:

Recommended Action:

1. United States Department of the Interior. Bureau of Land Management. Mount Lewis Field Office. Communications Site Management Plan Amendment.
2. State of Nevada. Department of Conservation & Natural Resources. Notice of Proposed Action by the State of Nevada. Barrick Cortez Inc. Water Pollution Control Permit NEV2018109.
3. State of Nevada. Department of Conservation & Natural Resources. Notice of Proposed Action by the State of Nevada. Barrick Cortez Inc. Water Pollution Control Permit NEV2018107.
4. United States Department of the Interior. Bureau of Land Management. Mount Lewis Field Office. Interested Public. Environmental Assessment.
5. NDEP. Notice of Public Comment Period Beginning July 20, 2018 and a Public Hearing on August 29, 2018 if Requested.
6. State of Nevada. Off-Highway Vehicles Program. Let your voice be heard: Input sought to enhance Nevada's off-road adventures.
7. State of Nevada. Department of Conservation & Natural Resources. Notice of Proposed Action by the State of Nevada. Red Widow Mining Company, Inc. Water Pollution Control Permit NEV2008102.
8. State of Nevada. Department of Conservation & Natural Resources. Notice of Decision. Water Pollution Control Permit Number NEV0087061. Newmont USA Limited. Fortitude/Reona (Phoenix) Project.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Mount Lewis Field Office

50 Bastian Road

Battle Mountain, Nevada 89820

Phone: 775-635-4000

Fax: 775-635-4034

<http://www.blm.gov/nevada>



JUL 24 2018

In Reply Refer To:  
N-30308  
2800 (NVB0100)

CERTIFIED MAIL 7014 2870 0001 8509 5195 - RETURN RECEIPT REQUESTED

Lander County  
315 S. Humboldt St.  
Battle Mountain, NV 89820

Dear Sir:

The Bureau of Land Management (BLM) is currently working towards the development of a Communications Site Management Plan Amendment for the communications facilities located on Mt. Lewis at MDM, T. 29 N., R. 45 E., sec. 12 in Lander County, Nevada. We, along with a representative from our Washington, D.C., office, will be conducting a compliance inspection of your leased area on **August 21, 2018 at 9:00 a.m.**

As stipulated in your Communications Use Lease, N-30308 and in Federal Regulations contained in 43 CFR 2805.15, the United States is reserved the right to enter upon the lease and inspect all facilities to assure compliance with the conditions of the lease. Noncompliance with this requirement may lead to termination of the authorization. Please ensure that a representative who is familiar with the uses and equipment on the site is present during this inspection.

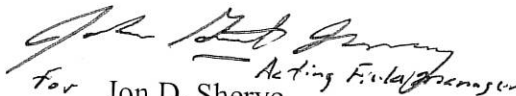
As part of our management goals, we are constantly striving to provide better customer service. The Communication Site Plan will help us achieve this goal. A Communication Site Plan has the following objectives:

- Document site management policy and development strategies, procedures and standards which are not already specified in the standard communications site lease.
- Present a program for future growth, development and operation within the site.
- Help fulfill the public need for adequate communication sites.
- Protect the interests of leaseholders and site users by preserving a safe and electronically "clean" environment.
- Encourage the efficient development and use of space and facilities within the designated site, subject to our goal to provide the best possible public service at reasonable cost.

- Achieve visual quality objectives by requiring design standards that are unobtrusive and by utilizing earth tone colors and non-reflective surface material.
- Describe the BLM policy for authorizing road construction, use, and maintenance.
- Establish the framework for a User's Association, which could provide recommendations to the BLM's authorized officer when there are two or more lessees.

Please respond to Ms. Cassie Ault, Realty Specialist, via e-mail at [cmault@blm.gov](mailto:cmault@blm.gov) by August 6, 2018, with the name and telephone number of the representative who will be at the site for this inspection. If you have any questions or concerns, please contact Ms. Ault, (775) 635-4083.

Sincerely,

  
for Jon D. Sherve  
Field Manager  
Mount Lewis Field Office



NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**

**STATE OF NEVADA**  
Department of Conservation & Natural Resources  
Brian Sandoval, Governor  
Bradley Crowell, Director  
Greg Lovato, Administrator

Notice of Proposed Action

By the

State of Nevada

The Administrator of the Division of Environmental Protection (the Division) gives notice that an application for a new Water Pollution Control Permit for the Pine Valley Infiltration Project, a mine dewatering management and infiltration facility, has been properly filed with the Division of Environmental Protection in Carson City. The Applicant for a new Water Pollution Control Permit NEV2018109 (Permit) is:

Barrick Cortez Inc.  
HC 66 Box 1250  
Crescent Valley, NV 89821

The facility is located on public and private land in Eureka and Lander Counties, within Sections 20, 29, and 32 - 36, T26N, R48E; Section 1, T25N, R48½E; and Section 6, T25N, R49E, MDB&M, approximately 43 miles southeast of the town of Battle Mountain.

The Project consists of a discharge to groundwater from the dewatering of a mine, pursuant to Nevada Administrative Code (NAC) 445A.232.2.

The Administrator is constrained to either issue the Permit or to deny the application. The Administrator has made the tentative decision to issue the new Permit.

Persons wishing to comment upon the proposed Permit, to recommend terms and conditions for consideration of incorporation into the Permit, or who request a public hearing pursuant to NAC 445A.238, must submit their written comments, objections, or requests by hand delivery or US Postal Service, or by facsimile or e-mail transmittal, no later than 5:00 PM on the 30<sup>th</sup> day following the date of publication of this notice (submittal end date 17 August 2018) to:

Division of Environmental Protection  
Bureau of Mining Regulation and Reclamation  
901 South Stewart Street, Suite 4001  
Carson City, NV 89701-5249

All comments, objections, or requests received during the public notice period will be considered in the final determination regarding the Permit. If the Division determines written comments or requests indicate a significant degree of public interest in this matter,

the Administrator shall schedule a public hearing in accordance with the requirements of NAC 445A.405.

The draft Permit and all application documents are on file at the Division and are available for public inspection and copying pursuant to Nevada Revised Statute 445A.665. For more information, contact Natasha Zittel at (775) 687-9413 or visit the Division public notice website at <https://ndep.nv.gov/posts/category/land>.

STATE OF NEVADA  
Department of Conservation and Natural Resources  
Division of Environmental Protection  
Bureau of Mining Regulation and Reclamation

**Water Pollution Control Permit**

Permittee: **Barrick Cortez Inc.  
Pine Valley Infiltration Project  
HC 66 BOX 1250  
Crescent Valley, NV 89821**

Permit Number: **NEV2018109**  
Review Type/Year/Revision: **New Permit 2018, Revision 00**

Pursuant to Nevada Revised Statutes (NRS) 445A.300 through 445A.730, inclusive, and regulations promulgated thereunder by the State Environmental Commission and implemented by the Division of Environmental Protection (the Division), this Permit authorizes the Permittee to construct, operate, and close the **Pine Valley Infiltration Project**, in accordance with the limitations, requirements, and other conditions set forth in this Permit. The Permittee is authorized to discharge to rapid infiltration basins (RIBs) up to **1,548,000 gallons per day**.

The facility is located in Eureka and Lander Counties, within Sections 20, 29, 32, 33, 34, 35, and 36, Township 26 North (T26N), Range 48 East (R48E); Section 1, T25N, R48½E; and Section 6, T25N, R49E, Mount Diablo Baseline and Meridian, approximately 43 miles southeast of the town of Battle Mountain, Nevada.

The Permittee must comply with all terms and conditions of this Permit and all applicable statutes and regulations.

This Permit is based on the assumption that the information submitted in the application of 2 May 2018, as modified by subsequent approved amendments, is accurate and that the facility has been constructed and is being operated as specified in the application. The Permittee must inform the Division of any deviation from, or changes in, the information in the application, which may affect the ability of the Permittee to comply with applicable regulations or Permit conditions.

This Permit is effective as of **Day Month Year**, and shall remain in effect until **Day-1 Month Year+5**, unless modified, suspended, or revoked.

Signed this \_\_\_\_\_ day of **Month Year**.

\_\_\_\_\_  
Joseph Sawyer, P.E.  
Chief, Bureau of Mining Regulation and Reclamation

Antimony	Copper	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Fluoride	pH ( $\pm 0.1$ SU) <sup>(4)</sup>	Zinc
Barium	Iron	Potassium	-
Beryllium	Lead	Selenium	-

- (2) The Cortez Hills Pipeline will be sampled near the DW-15 manifold tie in.
  - (3) In-line installation and operation of flow totalizers are required for determination of cumulative flow.
  - (4) All sample analyses resulting in a pH value less than or equal to 5.0 SU shall also be analyzed for acidity (mg/L, as CaCO<sub>3</sub> equivalent).
  - (5) A hazardous waste determination is required: a) Initially, for each PCS source prior to management under the PCS Management Plan; b) When a PCS waste stream is suspected to have changed character since the last determination; and c) When a hazardous constituent is detected during screening analyses at a concentration suggestive of hazardous waste. Determinations must be performed pursuant to 40 Code of Federal Regulations (CFR) 262.11 using operator knowledge and/or applicable analytical testing methods described in EPA publication SW-846. Operator knowledge must be adequately described and sufficient to justify the determination.
- E. Quarterly and annual monitoring reports and release reporting shall be in accordance with Part II.B.
- F. All sampling and analytical accuracy shall be in accordance with Part II.E.
- G. Permit Limitations:
1. Water at the point of discharge to the RIBs shall not exceed the following constituent concentrations based on background groundwater quality and the most recent predictive modeling results:

Aluminum	0.2 mg/L	Magnesium	150 mg/L
Antimony	0.006 mg/L	Manganese	0.10 mg/L
Arsenic	0.01 mg/L	Mercury	0.002 mg/L
Barium	2.0 mg/L	Nitrate + Nitrite (as N)	10 mg/L
Beryllium	0.004 mg/L	Nitrogen, Total (as N)	10 mg/L
Cadmium	0.005 mg/L	Field pH ( $\pm 0.1$ SU) <sup>(4)</sup>	6.5-8.5 SU
Chloride	400 mg/L	Selenium	0.05 mg/L
Chromium	0.1 mg/L	Silver	0.1 mg/L
Copper	1.0 mg/L	Sulfate	500 mg/L

Fluoride	4 mg/L	Total Dissolved Solids	1,000 mg/L
Iron	0.6 mg/L	Thallium	0.002 mg/L
Lead	0.015 mg/L	Zinc	5.0 mg/L

2. The total discharge rate to all RIBs shall not exceed 565,020,000 gallons per year.
3. The fluid management system shall be managed to prevent the following: overflow or surface discharge from RIBs; the formation of surface seeps, artificial springs, or other surface water bodies; or significant increases in water level or flow rate of existing surface water bodies.
4. A minimum 2-foot freeboard must be maintained in all RIBs.
5. All RIBs shall be excavated 20 feet or more below the surrounding native ground surface.
6. The facility shall not degrade waters of the State to the extent that applicable water quality standards and background concentrations are exceeded.
7. Failure to meet a Schedule of Compliance date or requirement.

Exceedances of these limitations may be Permit violations and shall be reported as specified in Part II.B.4.

- H. The Project shall maintain an automated or manual calibrated rain gauge, which shall be monitored at least daily to record precipitation (inches of water). A written and/or electronic record of all daily accumulations of precipitation shall be maintained on site.
- I. The Permittee shall inspect all control devices, systems, and facilities weekly, and also during, when possible, and after major storm events. These inspections are performed to detect evidence of:
  1. Deterioration, malfunction, or improper operation of control or monitoring systems;
  2. Sudden changes in the data from any monitoring device (if applicable);
  3. The presence of liquids in leak detection systems (if applicable);
  4. Unauthorized discharges; and
  5. Severe erosion or other signs of deterioration in RIBs, dikes, diversions, closure covers, or other containment devices.
- J. Prior to initiating permanent closure activities at the water management facility, or at any water management process component or other source within the facility, the Permittee must have an approved final plan for permanent closure.
- K. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 starting July 1 after the effective date of this Permit and every year

thereafter until the Permit is terminated or the facility has received final closure certification from the Division.

- L. The Permittee shall not dispose of or treat Petroleum-Contaminated Soil (PCS) on the mine site without first obtaining from the Division approval of a PCS Management Plan. The approved PCS Management Plan and the Division Guidance for Mine-Site PCS Management Plans are hereby incorporated into this Permit by reference.
- M. When performing dust suppression activities, the Permittee shall use best management practices and appropriate selection of water source and additives to prevent degradation of waters of the State. If a dust suppressant exceeds a water quality standard and the corresponding natural background water concentration in the area where dust suppression will occur, the Permittee shall demonstrate no potential to degrade waters of the State.
- N. Continuing Investigations:
  - 1. The Permittee shall submit to the Division for review and approval with each Permit renewal, and with any application to modify the Permit that could affect the water quality of the permitted discharge, an updated hydrogeochemical evaluation of current, and predicted future, water quality in the infiltration mound system above the pre-mining water elevation and in the underlying groundwater, the predicted future discharge volume and chemistry, and the resultant potential for degradation of groundwater in response to the permitted infiltration. If applicable, the hydrogeochemical evaluation must include additional proposed controls to eliminate any potential for groundwater degradation. Approval may require modification of the Permit and payment of modification fees.

## II. General Facility Conditions and Limitations

### A. General Requirements

- 1. The Permittee shall achieve compliance with the conditions, limitations, and requirements of the Permit upon commencement of each relevant activity. The Administrator may, upon the request of the Permittee and after public notice (if required), revise or modify a Schedule of Compliance in an issued Permit if he or she determines good and valid cause (such as an act of God, a labor strike, materials shortage, or other event over which Permittee has little or no control) exists for such revision.
- 2. The Permittee shall at all times maintain in good working order and operate as efficiently as possible, all devices, facilities, and systems installed or used by the Permittee to achieve compliance with the terms and conditions of this Permit.
- 3. Whenever the Permittee becomes aware that he or she failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Administrator, the Permittee shall

promptly submit such facts or correct information. Any inaccuracies found in this information may be grounds for revocation or modification of this Permit and appropriate enforcement action.

B. Reporting Requirements

1. The Permittee shall submit quarterly reports, in both hard copy and a Division-approved electronic format, which are due to the Division on or before the 28<sup>th</sup> day of the month following the quarter and must contain the following:
  - a. Analytical results of the solution collected from monitoring locations identified in Parts I.D.1 and I.D.3, reported on Nevada Division of Environmental Protection (NDEP) Form 0190 or equivalent;
  - b. Daily, weekly, and monthly measurements of volume, depth, elevation, and freeboard identified in Parts I.D.1, I.D.2, I.D.3, and I.D.4;
  - c. A record of releases, and the remedial actions taken in accordance with the approved Emergency Response Plan on NDEP Form 0490 or equivalent; and
  - d. Analytical results, copies of hazardous waste determinations, and monitoring results, identified in Parts I.D.5, pertaining to the approved PCS Management Plan.

Facilities which have not initiated mining, construction, or discharge, must submit a quarterly report identifying the status of mining, construction, and discharge. Subsequent to any noncompliance or any facility expansion which provides increased capacity, the Division may require an accelerated monitoring frequency.

2. The Permittee shall submit an annual report, in both hard copy and a Division-approved electronic format, by February 28<sup>th</sup> of each year, for the preceding calendar year, which contains the following:
  - a. A synopsis of releases on NDEP Form 0390 or equivalent;
  - b. A brief summary of site operations, including the total cumulative volume of water discharged from the fluid management system during the year, identified in Part I.D.1, construction and expansion activities, and major problems with the fluid management system;
  - d. A table of total monthly precipitation amounts recorded in accordance with Part I.H, reported for either a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter;
  - e. An updated version of the facility monitoring and sampling procedures and protocols;
  - f. An updated evaluation of the closure plans using specific characterization data for each process component with respect to achieving stabilization; and
  - g. Graphs of volume, elevation, freeboard, arsenic, antimony, chloride, fluoride, iron, manganese, nitrate + nitrite (as N), pH, sulfate, and total

dissolved solids (TDS) (as applicable), versus time for all fluid monitoring points. These graphs shall display either a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter. Additional parameters may be required by the Division, if deemed necessary.

3. Release Reporting Requirements: The following applies to facilities with an approved Emergency Response Plan. If a site does not have an approved Emergency Response Plan, then all releases must be reported as per NAC 445A.347 or NAC 445A.3473, as appropriate.

- a. A release of any quantity of hazardous substance, as defined at NAC 445A.3454, to surface water, or that threatens a vulnerable resource, as defined at NAC 445A.3459, must be reported to the Division as soon as practicable after knowledge of the release, and after the Permittee notifies any emergency response agencies, if required, and initiates any action required to prevent or abate any imminent danger to the environment or the health or safety of persons. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b.
- b. A release of a hazardous substance in a quantity equal to or greater than that which is required to be reported to the National Response Center pursuant to 40 Code of Federal Regulations Part 302 must be reported as required by NAC 445A.3473 and Part II.B.3.a.
- c. A release of a non-petroleum hazardous substance not subject to Parts II.B.3.a. or II.B.3.b., released to soil or other surfaces of land, and the total quantity is equal to or exceeds 500 gallons or 4,000 pounds, or that is discovered in or on groundwater in any quantity, shall be reported to the Division no later than 5:00 P.M. of the first working day after knowledge of the release. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b. Smaller releases, with total quantity greater than 25 gallons or 200 pounds and less than 500 gallons or 4,000 pounds, released to soil or other surfaces of land, or discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.
- d. Petroleum Products and Coolants: If a release is subject to Parts II.B.3.a. or II.B.3.b., report as specified in Part II.B.3.a. Otherwise, if a release of any quantity is discovered on or in groundwater, or if the total quantity is equal to or greater than 100 gallons released to soil or other surfaces of land, report as specified in Part II.B.3.c. Smaller releases, with total quantity greater than 25 gallons but less than 100 gallons, released to soil or other surfaces of land, or if discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

4. The Permittee shall report to the Administrator any noncompliance with the Permit.
  - a. Each such event shall be reported orally by telephone to (775) 687-9400, not later than 5:00 P.M. of the next regular work day from the time the Permittee has knowledge of the circumstances. This report shall include the following:
    - i. Name, address, and telephone number of the owner or operator;
    - ii. Name, address, and telephone number of the facility;
    - iii. Date, time, and type of incident, condition, or circumstance;
    - iv. If reportable hazardous substances were released, identify material and report total gallons and quantity of contaminant;
    - v. Human and animal mortality or injury;
    - vi. An assessment of actual or potential hazard to human health and the environment outside the facility; and
    - vii. If applicable, the estimated quantity of material that will be disposed and the disposal location.
  - b. A written summary shall be provided within 10 days of the time the Permittee makes the oral report. The written summary shall contain:
    - i. A description of the incident and its cause;
    - ii. The periods of the incident (including exact dates and times);
    - iii. If reportable hazardous substances were released, the steps taken and planned to complete, as soon as reasonably practicable, an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269;
    - iv. Whether the cause and its consequences have been corrected, and if not, the anticipated time each is expected to continue; and
    - v. The steps taken or planned to reduce, eliminate, and prevent recurrence of the event.
  - c. The Permittee shall take all available and reasonable actions, including more frequent and enhanced monitoring to:
    - i. Determine the effect and extent of each incident;
    - ii. Minimize any potential impact to the waters of the State arising from each incident;
    - iii. Minimize the effect of each incident upon domestic animals and all wildlife; and
    - iv. Minimize the endangerment of the public health and safety which arises from each incident.

- d. If required by the Division, the Permittee shall submit, as soon as reasonably practicable, a final written report summarizing any related actions, assessments, or evaluations not included in the report required in Part II.B.4.b., and including any other information necessary to determine and minimize the potential for degradation of waters of the State and the impact to human health and the environment. Submittal of the final report does not relieve the Permittee from any additional actions, assessments, or evaluations that may be required by the Division

#### C. Administrative Requirements

1. A valid Permit must be maintained until permanent closure and post closure monitoring is complete. Therefore, unless permanent closure and post closure monitoring have been completed and termination of the Permit has been approved in writing by the Division, the Permittee shall apply for Permit renewal not later than 120 days before the Permit expires.
2. Except as required by NAC 445A.419 for a Permit transfer, the Permittee shall submit current Permit contact information described in paragraphs (a) through (c) of subsection 2 of NAC 445A.394 within 30 days after any change in previously submitted information.
3. All reports and other information requested by the Administrator shall be signed and certified as required by NAC 445A.231.
4. All reports required by this Permit, including, but not limited to, monitoring reports, corrective action reports, and as-built reports, as applicable, and all applications for Permit modifications and renewals, shall be submitted in both hard copy and a Division-approved electronic format.
5. When ordered consistent with Nevada Statutes, the Permittee shall furnish any relevant information in order to determine whether cause exists for modifying, revoking and reissuing, or permanently revoking this Permit, or to determine compliance with this Permit.
6. The Permittee shall maintain a copy of, and all modifications to, the current Permit at the permitted facilities at all times.
7. The Permittee is required to retain during operation, closure and post-closure monitoring, all records of monitoring activities and analytical results, including all original strip chart or data logger recordings for continuous monitoring instrumentation, and all calibration and maintenance records. This period of retention must be extended during the course of any unresolved litigation.
8. The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not thereby be affected.
9. The Permittee is authorized to manage fluids and solid wastes in accordance with the conditions of this Permit. Issuance of this Permit does not convey

property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State, or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Water Pollution Control Statutes for releases or discharges from facilities or units not regulated by this Permit. NRS 445A.675 provides that any person who violates a Permit condition is subject to administrative or judicial action provided in NRS 445A.690 through 445A.705.

D. Division Authority

The Permittee shall allow authorized representatives of the Division, at reasonable times, and upon the presentation of credentials to:

1. Enter the premises of the Permittee where a regulated activity is conducted or where records are kept per the conditions of this Permit;
2. Have access to and copy any record that must be kept per the conditions of this Permit;
3. Inspect and photograph any facilities, equipment (including monitoring and control equipment), practices, or operations regulated by this Permit; and
4. Sample or monitor for any substance or parameter at any location for the purposes of assuring Permit and regulatory compliance.

E. Sampling and Analysis Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. For each measurement or sample taken pursuant to the conditions of this Permit, the Permittee shall record the following information:
  - a. The exact place, date, and time of the inspection, observation, measurement, or sampling; and
  - b. The person(s) who inspected, observed, measured, or sampled.
3. Samples must be taken, preserved, and labeled according to Division approved methods.
4. Standard environmental monitoring chain of custody procedures must be followed.
5. Samples shall be analyzed by a laboratory certified or approved by the State of Nevada, as applicable for the method(s) being performed. The Permittee must identify in all required reports the certified and approved laboratories used to perform the analyses, laboratory reference numbers, and sample dates, and for the electronic version of each report only, include all associated laboratory analytical reports, including test results, test methods, chain-of-custody forms, and quality assurance/quality control documentation.

6. The accuracy of analytical results, unless otherwise specified, shall be expressed in mg/L and be reliable to at least two significant digits. The analytical methods used must have a practical quantitation limit (PQL) equal to or less than one-half the reference value for Profile I parameters. Laboratories shall report the lowest reasonable PQL based on in-house method detection limit studies. Samples for Profile I parameters shall be filtered and analyzed for the dissolved fraction, unless otherwise required by the Division. Unless otherwise approved by the Division, analytical results that are less than the PQL shall be reported quantitatively by listing the PQL value preceded by the "<" symbol.

#### F. Permit Modification Requirements

1. Any material modification, as defined in NAC 445A.365, plan to construct a new water management process component, or proposed change to Permit requirements must be reported to the Division by submittal of an application for a Permit modification, or if such changes are in conformance with the existing Permit, by submittal of a written notice of the changes. The Permit modification application must comply with NAC 445A.391 through 445A.399, 445A.410, 445A.412, 445A.414, 445A.4155, 445A.416, 445A.417, 445A.440, and 445A.442, as applicable. The construction or modification shall not commence, nor shall a change to the Permit be effective, until written Division approval is obtained.
2. Prior to the commencement of mining activities at any site within the State which is owned or operated by the Permittee but not identified and characterized in a previously submitted application or report, the Permittee shall submit to the Division a report which identifies the locations of the proposed mine areas and waste disposal sites, and characterizes the potential of mined materials and areas to release pollutants. Prior to development of these areas the Division shall determine if any of these new sources will be classified as process components and require engineered containment as well as Permit modification.
3. The Permittee shall notify the Division in writing at least 30 days before the introduction of dewatering water into a new water management process component or into an existing water management process component that has been materially modified, or of the intent to commence active operation of that water management process component. Before introducing dewatering water or commencing active operation, the Permittee shall obtain written authorization from the Division.
4. The Permittee must obtain a written determination from the Administrator of any planned water management process component construction or material modification, or any proposed change to Permit requirements, as to whether it is considered a Permit modification, and if so, what type.

5. The Permittee must give advance notice to the Administrator of any planned changes or activities which are not material modifications in the permitted facility that may result in noncompliance with Permit requirements.

Prepared by: Natasha Zittel

Date: 11 July 2018

Revision 00: New Permit

DRAFT

## FACT SHEET

(Pursuant to Nevada Administrative Code (NAC) 445A.401)

Permittee Name: **Barrick Cortez Inc.**

Project Name: **Pine Valley Infiltration Project**

Permit Number: **NEV2018109**

Review Type/Year/Revision: **New Permit 2018, Fact Sheet Revision 00**

### **A. Location and General Description**

The facility is located in Eureka and Lander Counties, within Sections 20, 29, 32, 33, 34, 35, and 36, Township 26 North (T26N), Range 48 East (R48E); Section 1, T25N, R48½E; and Section 6, T25N, R49E, Mount Diablo Baseline and Meridian, approximately 43 miles southeast of the town of Battle Mountain, Nevada. The facility is located on both private land controlled by the Permittee and public land administered by the U.S. Bureau of Land Management (BLM), Mount Lewis Field Office in Battle Mountain, Nevada. The site may be accessed by traveling approximately 40 miles west from Elko, or 30 miles east from Battle Mountain, on Interstate Highway 80, then 31 miles south on Nevada State Route 306, then 9 miles southeast on Lander County Road 222.

**General Description:** The Pine Valley Infiltration Project consists of infiltration of mine dewatering water at a maximum rate of 1,075 gallons per minute (gpm; equivalent to 1,548,000 gallons per day (gpd)) via rapid infiltration basins (RIBs) located in Pine Valley. The Pine Valley infiltration site will contain four RIBs. The facility must be designed, constructed, operated, and closed without any discharge or release in excess of those standards established in regulation, except as authorized in the Permit and for meteorological events which exceed the 24-hour, 25-year design storm event.

### **B. Synopsis**

**General:** The Permittee mines gold ore from the Pipeline Project (Water Pollution Control Permit (WPCP) NEV0093109) and Cortez Hills deposit (WPCP NEV2007106) by open pit extraction methods, and conducts underground mining for the Cortez Hills deposit, all from elevations below the pre-mining groundwater table in the southern portion of Crescent Valley. Therefore, the operation requires a dewatering program to extract groundwater from within the excavations and from the periphery of the open pit and underground workings in advance of mining. Dewatering water from the Cortez mining operation is infiltrated under this Permit, the Pipeline Infiltration Project (WPCP NEV0095111), and Grass Valley Infiltration Project (WPCP NEV2018107). The Pine Valley facility will consist of four RIBs, a booster pump station, surface pipelines, and associated infrastructure and apparatuses.

The facility is located in the northern portion of Grass Valley and the southwestern portion of Pine Valley, on the southeast flank of the Cortez Mountains, between the

elevations of 5,710 feet above mean sea level (amsl) and 6,440 feet amsl. The facility provides for return of the Cortez Hills Mine dewatering water to Pine Valley in order to compensate inter-basin transfers of groundwater out of the Pine Valley basin.

**Infiltration System Design:** The Project begins at the flow control valve at the Grass Valley Infiltration RIBs (NEV2018107). The dewatering pipeline will extend southward in Grass Valley and be connected to the Grass Valley Booster Pump Station before continuing east and terminating at the Pine Valley RIBs approximately 7 miles southeast of the Grass Valley infiltration RIBs. The project is designed to infiltrate up to 1,075 gpm, and the dewatering delivery pipeline system is designed to convey an additional 3,225 gpm for a total of 4,300 gpm. The additional 3,225 gpm capacity is for potential future infiltration sites at the Project.

The dewatering pipeline from the Grass Valley RIBs to the Project will be approximately 39,500 feet in length. The conveyance pipeline from the Grass Valley RIBs to the Project will consist of the following: approximately 11,000 feet of 24-inch diameter high density polyethylene (HDPE) pipe (standard dimension ratio (SDR) 17), the Grass Valley Pump Station, 15,500 feet of 24-inch diameter steel pipe, a 72-inch manhole sump, 9,300 feet of 40-inch diameter HDPE pipe (SRD 17), a 72-inch manhole sump, 2,860 feet of 24-inch HDPE SDR 17, a stilling basin, and 800 feet of 24-inch HDPE SDR 17. At road crossings, the 24-inch pipe will be inserted into a 30-inch culvert and the 40-inch pipe will be inserted into a 48-inch culvert.

**Grass Valley Pump Station:** The Grass Valley Pump Station is located approximately 1.7 miles south of the Grass Valley RIBs. The station will consist of four vertical turbine pumps. The pumps will be mounted above a concrete sump.

**RIB Construction and Water Management:** The RIBs will be constructed on an alluvial fan. Each, of the four, Pine Valley RIBs will be 200 feet wide and 1,000 feet long at the crest. Basins are designed to be 20 feet deep with side slopes of 3 horizontal to 1 vertical. An infiltration enhancement trench will be constructed within the floor of each basin. These trenches are designed to be approximately 16 feet deep and four feet wide and will be filled with pit-run aggregate material. The aggregate material shall be sized with 50 percent passing 1 inch and without fines passing a number 200 mesh screen.

Within the infiltration site, the dewatering water is distributed to each RIB through dedicated 12-inch diameter HDPE RIB inlet pipes equipped with butterfly valves, which are used to manage flow amongst two or more RIBs. The RIB inlet pipe runs down the RIB sideslope to the bottom of the basin, typically near one end of the RIB. The inlet pipeline terminates into a 10-foot square by 3-foot thick layer of riprap having a mass median diameter ( $D_{50}$ ) of 9 inches. There are no totalizers or flow meters at individual RIBs as the flow is totalized at the Grass Valley Pump Station.

The RIBs are constructed in pairs, one upgradient and one downgradient, typically 100 to 200 feet apart. The upgradient RIB has a 5-foot diameter basin overflow manhole located within the lower sideslope of the RIB. The manhole is constructed of precast concrete rings to a height of 7 feet above a concrete base set into the floor of the RIB. If water in the RIB reaches the top of the manhole, it will overflow through a trash screen and flow by gravity through a 16-inch diameter HDPE overflow pipe that discharges into the downgradient RIB. Each downgradient RIB, therefore, includes two inlet pipes: the overflow pipeline for the upgradient RIB, and the normal RIB inlet distribution pipe. Both inlets are constructed to the same design as the RIB inlet pipe termination structure described above. The spillway connects to a surface riprap apron downgradient of the RIB. The spillway is a minimum of 10 feet wide and 2 feet deep, with a 12-inch thick layer of riprap over a base layer of geotextile. The Permit prohibits surface discharges from RIBs; spillways are constructed for emergency use only.

**Petroleum-Contaminated Soil Management:** No PCS storage or disposal is approved for the facility. The Permittee is required to remove all PCS from the facility for provisional storage and disposal at the approved Pipeline Project waste rock dump (WPCP NEV0093109) in accordance with the approved PCS Management Plan and the Division Guidance for Mine-Site PCS Management Plans.

**C. Receiving Water Characteristics**

In the Project area, groundwater is localized in structural bedrock aquifers with no substantial water-bearing zones in the alluvium. Groundwater flow is controlled by the numerous north-south and east-west trending faults and fractures. Local bedrock has generally low hydraulic conductivity.

Groundwater depths range from 100 feet below ground surface (bgs) to 300 feet bgs. Receiving waters are located in the southwestern portion of Pine Valley (State of Nevada Hydrographic Basin #53). Pine Valley is semi-closed topographically. The southern Cortez Mountains and northernmost section of the Simpson Park Range separates the western portion of Pine Valley from Grass Valley (State Hydrographic Basin #138). The Cortez Mountain Range separates Crescent Valley (State Hydrographic Basin #54) from Pine Valley.

Through hydraulic studies the Permittee determined that dewatering activities for the Cortez Complex in Crescent Valley is drawing small amounts of water from Pine Valley and Grass Valley. Baseline characteristics of several analyses periodically exceed Division Profile I reference values (drinking water standards) in the one location for antimony, arsenic, iron, manganese, and pH. Baseline information will be provided with three additional monitoring wells downgradient of the RIBs.

There are no seeps and springs within a mile radius of the project. Pine Creek is located approximately 0.6 miles from the Project and is intermittent.

**D. Procedures for Public Comment**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

### E. Proposed Determination

F. Proposed Limitations, Schedule of Compliance, Monitoring, Special Conditions

### G. Rationale for Permit Requirements

## H. Federal Migratory Bird Treaty Act

P:\BMRR\RegClos\Projects\Pine Valley Infiltration Project\PermitDocs\201805NZ-DRAFT Fact Sheet 2018 Rev00-PVRIB.docx

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g., by covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

Prepared by: Natasha Zittel

Date: 11 July 2018

Revision 00: New Permit



NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**

STATE OF NEVADA  
Department of Conservation & Natural Resources  
Brian Sandoval, Governor  
Bradley Crowell, Director  
Greg Lovato, Administrator

Notice of Proposed Action

By the

State of Nevada

The Administrator of the Division of Environmental Protection (the Division) gives notice that an application for a new Water Pollution Control Permit for the Grass Valley Infiltration Project, a mine dewatering management and infiltration facility, has been properly filed with the Division of Environmental Protection in Carson City. The Applicant for a new Water Pollution Control Permit NEV2018107 (Permit) is:

Barrick Cortez Inc.  
HC 66 Box 1250  
Crescent Valley, NV 89821

The facility is located on public and private land in Eureka and Lander Counties, within Sections 1, 12, and 13, T26N, R47E; Sections 6, 7, and 17-20, T26N, R48E; and Section 31, T27N, R48E, MDB&M, approximately 40 miles southeast of the town of Battle Mountain.

The Project consists of a discharge to groundwater from the dewatering of a mine, pursuant to Nevada Administrative Code (NAC) 445A.232.2.

The Administrator is constrained to either issue the Permit or to deny the application. The Administrator has made the tentative decision to issue the new Permit.

Persons wishing to comment upon the proposed Permit, to recommend terms and conditions for consideration of incorporation into the Permit, or who request a public hearing pursuant to NAC 445A.238, must submit their written comments, objections, or requests by hand delivery or US Postal Service, or by facsimile or e-mail transmittal, no later than 5:00 PM on the 30<sup>th</sup> day following the date of publication of this notice (submittal end date 17 August 2018) to:

Division of Environmental Protection  
Bureau of Mining Regulation and Reclamation  
901 South Stewart Street, Suite 4001  
Carson City, NV 89701-5249

All comments, objections, or requests received during the public notice period will be considered in the final determination regarding the Permit. If the Division determines written comments or requests indicate a significant degree of public interest in this matter,

the Administrator shall schedule a public hearing in accordance with the requirements of NAC 445A.405.

The draft Permit and all application documents are on file at the Division and are available for public inspection and copying pursuant to Nevada Revised Statute 445A.665. For more information, contact Natasha Zittel at (775) 687-9413 or visit the Division public notice website at <https://ndep.nv.gov/posts/category/land>.

STATE OF NEVADA  
Department of Conservation and Natural Resources  
Division of Environmental Protection  
Bureau of Mining Regulation and Reclamation  
**Water Pollution Control Permit**

Permittee: **Barrick Cortez Inc.  
Grass Valley Infiltration Project  
HC 66 Box 1250  
Crescent Valley, NV 89821**

Permit Number: **NEV2018107**  
Review Type/Year/Revision: **New Permit 2018, Revision 00**

Pursuant to Nevada Revised Statutes (NRS) 445A.300 through 445A.730, inclusive, and regulations promulgated thereunder by the State Environmental Commission and implemented by the Division of Environmental Protection (the Division), this Permit authorizes the Permittee to construct, operate, and close the **Grass Valley Infiltration Project**, in accordance with the limitations, requirements, and other conditions set forth in this Permit. The Permittee is authorized to discharge to rapid infiltration basins (RIBs) up to **12,240,000 gallons per day**.

The facility is located in Eureka and Lander Counties, within Sections 1, 12, and 13, Township 26 North (T26N), Range 47 East (R47E); Sections 6, 7, 17, 18, 19, and 20, T26N, R48E; and Section 31, T27N, R48E, Mount Diablo Baseline and Meridian, approximately 40 miles southeast of the town of Battle Mountain, Nevada.

The Permittee must comply with all terms and conditions of this Permit and all applicable statutes and regulations.

This Permit is based on the assumption that the information submitted in the application of 5 April 2018, as modified by subsequent approved amendments, is accurate and that the facility has been constructed and is being operated as specified in the application. The Permittee must inform the Division of any deviation from, or changes in, the information in the application, which may affect the ability of the Permittee to comply with applicable regulations or Permit conditions.

This Permit is effective as of **Day Month Year**, and shall remain in effect until **Day-1 Month Year+5**, unless modified, suspended, or revoked.

Signed this \_\_\_\_\_ day of **Month Year**.

\_\_\_\_\_  
Joseph Sawyer, P.E.  
Chief, Bureau of Mining Regulation and Reclamation

I. Specific Facility Conditions and Limitations

A. In accordance with operating plans and facility design plans reviewed and approved by the Division the Permittee shall:

1. Construct, operate, and close the facility in accordance with those plans;
2. Except for the discharge authorized by this Permit, and any other approved uses, contain within the fluid management system all dewatering water and all meteoric waters that enter the system as a result of the 25-year, 24-hour storm event; and
3. Not release or discharge any contaminants from the fluid management system that would result in degradation of waters of the State.

B. Schedule of Compliance:

1. Thirty days prior to initiation of operations, the Permittee shall submit to the Division a written notice of intention to begin operation pursuant to Nevada Administrative Code (NAC) 445A.426.
2. Thirty days prior to initiation of operations, the Permittee shall schedule a reasonable time for the Division to conduct a facility inspection at ascertain compliance of the constructed facility with the approved design and Permit.

The schedule of compliance items above are not considered completed until approved in writing by the Division.

C. The fluid management system covered by this Permit consists of the following water management process components:

1. Mine Dewatering Wells;
2. Cortez Hills Booster Pump Station;
3. Transfer pipes, valves, pumps, spillways, and other devices used to convey, control or monitor dewatering solution; and
4. Four rapid infiltration basins (RIBs) IB-3101, IB-3102, IB-3103, and IB-3104.

D. Monitoring Requirements:

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
1. <u>Infiltration Discharge Water:</u>  Cortez Hills Pipeline (INF-DIS-CH) <sup>(2)</sup>	Profile I <sup>(1)</sup> ;  pH, specific conductance (µS/cm);  Total cumulative volume discharged (MG) <sup>(3)</sup>	Quarterly;  Weekly;  Annually

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
2. <u>Rapid Infiltration Basins:</u> IB-3101, IB-3102, IB-3103, IB-3104	Available freeboard (ft)	Weekly
3. <u>Monitoring Wells:</u> RIB Upgradient: GVI-1 RIB Downgradient: GVI-2, GVI-3 Other Monitoring Wells: PD-06, CHPZ-48	Water and collar elevation (ft amsl); Profile I <sup>(1)</sup>	Weekly;  Quarterly
4. <u>Infiltration Mound</u> <u>Piezometers:</u> CHPZ-128, CHPZ-129	Water elevation (ft amsl)	Weekly
5. <u>PCS Hazardous Waste</u> <u>Determination</u> Each PCS source	Hazardous waste determination <sup>(5)</sup>	When required <sup>(5)</sup>

The Permittee may request a reduction of the monitoring frequency after four quarters of complete monitoring based on justification other than cost. Such reductions may be considered modifications to the Permit and require payment of modification fees.

#### **Abbreviations and Definitions:**

amsl = above mean sea level; CaCO<sub>3</sub> = calcium carbonate; EPA = Environmental Protection Agency; ft = feet; gal = gallons; MG = million gallons; mg/L = milligrams per liter; N = nitrogen; NAC = Nevada Administrative Code; NDEP = Nevada Division of Environmental Protection; PCS = Petroleum-Contaminated Soil; pH = the negative of the base 10 logarithm of the activity of the hydrogen ion; SU = standard units for pH measurement; > = greater than; ≥ = greater than or equal to; < = less than; °F = degrees Fahrenheit; μS/cm = microSiemens per centimeter

#### **Footnotes:**

(1) Profile I:

Alkalinity (as CaCO <sub>3</sub> )	Cadmium	Magnesium	Silver
Bicarbonate	Calcium	Manganese	Sodium
Total	Chloride	Mercury	Sulfate
Aluminum	Chromium	Nitrate + Nitrite (as N)	Thallium

Antimony	Copper	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Fluoride	pH ( $\pm 0.1$ SU) <sup>(4)</sup>	Zinc
Barium	Iron	Potassium	-
Beryllium	Lead	Selenium	-

- (2) The Cortez Hills Pipeline will be sampled near the DW-15 manifold tie in.
- (3) In-line installation and operation of flow totalizers are required for determination of cumulative flow.
- (4) All sample analyses resulting in a pH value less than or equal to 5.0 SU shall also be analyzed for acidity (mg/L, as CaCO<sub>3</sub> equivalent).
- (5) A hazardous waste determination is required: a) Initially, for each PCS source prior to management under the PCS Management Plan; b) When a PCS waste stream is suspected to have changed character since the last determination; and c) When a hazardous constituent is detected during screening analyses at a concentration suggestive of hazardous waste. Determinations must be performed pursuant to 40 Code of Federal Regulations (CFR) 262.11 using operator knowledge and/or applicable analytical testing methods described in EPA publication SW-846. Operator knowledge must be adequately described and sufficient to justify the determination.
- E. Quarterly and annual monitoring reports and release reporting shall be in accordance with Part II.B.
- F. All sampling and analytical accuracy shall be in accordance with Part II.E.
- G. Permit Limitations:
1. Water at the point of discharge to the RIBs shall not exceed the following constituent concentrations based on background groundwater quality and the most recent predictive modeling results:

Aluminum	0.2 mg/L	Magnesium	150 mg/L
Antimony	0.006 mg/L	Manganese	0.10 mg/L
Arsenic	0.01 mg/L	Mercury	0.002 mg/L
Barium	2.0 mg/L	Nitrate + Nitrite (as N)	10 mg/L
Beryllium	0.004 mg/L	Nitrogen, Total (as N)	10 mg/L
Cadmium	0.005 mg/L	Field pH ( $\pm 0.1$ SU)	6.5-8.5 SU
Chloride	400 mg/L	Selenium	0.05 mg/L
Chromium	0.1 mg/L	Silver	0.1 mg/L
Copper	1.0 mg/L	Sulfate	500 mg/L

Fluoride	4 mg/L	Total Dissolved Solids	1,000 mg/L
Iron	0.6 mg/L	Thallium	0.002 mg/L
Lead	0.015 mg/L	Zinc	5.0 mg/L

2. The total discharge rate to all RIBs shall not exceed 4,470,660,000 gallons per year.
3. The fluid management system shall be managed to prevent the following: overflow or surface discharge from RIBs; the formation of surface seeps, artificial springs, or other surface water bodies; or significant increases in water level or flow rate of existing surface water bodies.
4. A minimum 2-foot freeboard must be maintained in all RIBs.
5. All RIBs shall be excavated 20 feet or more below the surrounding native ground surface.
6. The facility shall not degrade waters of the State to the extent that applicable water quality standards and background concentrations are exceeded.
7. Failure to meet a Schedule of Compliance date or requirement.

Exceedances of these limitations may be Permit violations and shall be reported as specified in Part II.B.4.

- H. The Project shall maintain an automated or manual calibrated rain gauge, which shall be monitored at least daily to record precipitation (inches of water). A written and/or electronic record of all daily accumulations of precipitation shall be maintained on site.
- I. The Permittee shall inspect all control devices, systems, and facilities weekly, and also during (when possible) and after major storm events. These inspections are performed to detect evidence of:
  1. Deterioration, malfunction, or improper operation of control or monitoring systems;
  2. Sudden changes in the data from any monitoring device (if applicable);
  3. The presence of liquids in leak detection systems (if applicable);
  4. Unauthorized discharges; and
  5. Severe erosion or other signs of deterioration in RIBs, dikes, diversions, closure covers, or other containment devices.
- J. Prior to initiating permanent closure activities at the water management facility, or at any water management process component or other source within the facility, the Permittee must have an approved final plan for permanent closure.
- K. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 starting July 1 after the effective date of this Permit and every year

thereafter until the Permit is terminated or the facility has received final closure certification from the Division.

- L. The Permittee shall not dispose of or treat Petroleum-Contaminated Soil (PCS) on the mine site without first obtaining from the Division approval of a PCS Management Plan. The PCS is transported and treated at Pipeline Project WPCP NEV0093109 under the approved PCS Management Plan.
- M. When performing dust suppression activities, the Permittee shall use best management practices and appropriate selection of water source and additives to prevent degradation of waters of the State. If a dust suppressant exceeds a water quality standard and the corresponding natural background water concentration in the area where dust suppression will occur, the Permittee shall demonstrate no potential to degrade waters of the State.
- N. Continuing Investigations:
  - 1. The Permittee shall submit to the Division for review and approval with each Permit renewal, and with any application to modify the Permit that could affect the water quality of the permitted discharge, an updated hydrogeochemical evaluation of current, and predicted future, water quality in the infiltration mound system above the pre-mining water elevation and in the underlying groundwater, the predicted future discharge volume and chemistry, and the resultant potential for degradation of groundwater in response to the permitted infiltration. If applicable, the hydrogeochemical evaluation must include additional proposed controls to eliminate any potential for groundwater degradation. Approval may require modification of the Permit and payment of modification fees.

## II. General Facility Conditions and Limitations

### A. General Requirements

- 1. The Permittee shall achieve compliance with the conditions, limitations, and requirements of the Permit upon commencement of each relevant activity. The Administrator may, upon the request of the Permittee and after public notice (if required), revise or modify a Schedule of Compliance in an issued Permit if he or she determines good and valid cause (such as an act of God, a labor strike, materials shortage, or other event over which Permittee has little or no control) exists for such revision.
- 2. The Permittee shall at all times maintain in good working order and operate as efficiently as possible, all devices, facilities, and systems installed or used by the Permittee to achieve compliance with the terms and conditions of this Permit.
- 3. Whenever the Permittee becomes aware that he or she failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Administrator, the Permittee shall promptly submit such facts or correct information. Any inaccuracies found in

this information may be grounds for revocation or modification of this Permit and appropriate enforcement action.

B. Reporting Requirements

1. The Permittee shall submit quarterly reports, in both hard copy and a Division-approved electronic format, which are due to the Division on or before the 28<sup>th</sup> day of the month following the quarter and must contain the following:
  - a. Analytical results of the solution collected from monitoring locations identified in Parts I.D.1 and I.D.3, reported on Nevada Division of Environmental Protection (NDEP) Form 0190 or equivalent;
  - b. Daily, weekly, and monthly measurements of volume, depth, elevation, and freeboard identified in Parts I.D.1, I.D.2, I.D.3, and I.D.4; and
  - c. A record of releases, and the remedial actions taken in accordance with the approved Emergency Response Plan on NDEP Form 0490 or equivalent.
  - d. Analytical results, copies of hazardous waste determinations, and monitoring results, identified in Parts I.D.5, pertaining to the approved PCS Management Plan;

Facilities which have not initiated mining, construction, or discharge, must submit a quarterly report identifying the status of mining, construction, and discharge. Subsequent to any noncompliance or any facility expansion which provides increased capacity, the Division may require an accelerated monitoring frequency.

2. The Permittee shall submit an annual report, in both hard copy and a Division-approved electronic format, by February 28<sup>th</sup> of each year, for the preceding calendar year, which contains the following:
  - a. A synopsis of releases on NDEP Form 0390 or equivalent;
  - b. A brief summary of site operations, including the total cumulative volume of water discharged from the fluid management system during the year, identified in Part I.D.1, construction and expansion activities, and major problems with the fluid management system;
  - d. A table of total monthly precipitation amounts recorded in accordance with Part I.H, reported for either a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter;
  - e. An updated version of the facility monitoring and sampling procedures and protocols;
  - f. An updated evaluation of the closure plans using specific characterization data for each process component with respect to achieving stabilization; and
  - g. Graphs of volume, elevation, freeboard, arsenic, chloride, fluoride, iron, manganese, nitrate + nitrite (as N), pH, sulfate, and total dissolved solids (TDS) (as applicable), versus time for all fluid monitoring points. These graphs shall display either a five-year history previous to the date of

submittal or the history since initial Permit issuance, whichever is shorter. Additional parameters may be required by the Division, if deemed necessary.

3. Release Reporting Requirements: The following applies to facilities with an approved Emergency Response Plan. If a site does not have an approved Emergency Response Plan, then all releases must be reported as per NAC 445A.347 or NAC 445A.3473, as appropriate.
  - a. A release of any quantity of hazardous substance, as defined at NAC 445A.3454, to surface water, or that threatens a vulnerable resource, as defined at NAC 445A.3459, must be reported to the Division as soon as practicable after knowledge of the release, and after the Permittee notifies any emergency response agencies, if required, and initiates any action required to prevent or abate any imminent danger to the environment or the health or safety of persons. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b.
  - b. A release of a hazardous substance in a quantity equal to or greater than that which is required to be reported to the National Response Center pursuant to 40 Code of Federal Regulations Part 302 must be reported as required by NAC 445A.3473 and Part II.B.3.a.
  - c. A release of a non-petroleum hazardous substance not subject to Parts II.B.3.a. or II.B.3.b., released to soil or other surfaces of land, and the total quantity is equal to or exceeds 500 gallons or 4,000 pounds, or that is discovered in or on groundwater in any quantity, shall be reported to the Division no later than 5:00 P.M. of the first working day after knowledge of the release. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b. Smaller releases, with total quantity greater than 25 gallons or 200 pounds and less than 500 gallons or 4,000 pounds, released to soil or other surfaces of land, or discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.
  - d. Petroleum Products and Coolants: If a release is subject to Parts II.B.3.a. or II.B.3.b., report as specified in Part II.B.3.a. Otherwise, if a release of any quantity is discovered on or in groundwater, or if the total quantity is equal to or greater than 100 gallons released to soil or other surfaces of land, report as specified in Part II.B.3.c. Smaller releases, with total quantity greater than 25 gallons but less than 100 gallons, released to soil or other surfaces of land, or if discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

4. The Permittee shall report to the Administrator any noncompliance with the Permit.
  - a. Each such event shall be reported orally by telephone to (775) 687-9400, not later than 5:00 P.M. of the next regular work day from the time the Permittee has knowledge of the circumstances. This report shall include the following:
    - i. Name, address, and telephone number of the owner or operator;
    - ii. Name, address, and telephone number of the facility;
    - iii. Date, time, and type of incident, condition, or circumstance;
    - iv. If reportable hazardous substances were released, identify material and report total gallons and quantity of contaminant;
    - v. Human and animal mortality or injury;
    - vi. An assessment of actual or potential hazard to human health and the environment outside the facility; and
    - vii. If applicable, the estimated quantity of material that will be disposed and the disposal location.
  - b. A written summary shall be provided within 10 days of the time the Permittee makes the oral report. The written summary shall contain:
    - i. A description of the incident and its cause;
    - ii. The periods of the incident (including exact dates and times);
    - iii. If reportable hazardous substances were released, the steps taken and planned to complete, as soon as reasonably practicable, an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269;
    - iv. Whether the cause and its consequences have been corrected, and if not, the anticipated time each is expected to continue; and
    - v. The steps taken or planned to reduce, eliminate, and prevent recurrence of the event.
  - c. The Permittee shall take all available and reasonable actions, including more frequent and enhanced monitoring to:
    - i. Determine the effect and extent of each incident;
    - ii. Minimize any potential impact to the waters of the State arising from each incident;
    - iii. Minimize the effect of each incident upon domestic animals and all wildlife; and
    - iv. Minimize the endangerment of the public health and safety which arises from each incident.

- d. If required by the Division, the Permittee shall submit, as soon as reasonably practicable, a final written report summarizing any related actions, assessments, or evaluations not included in the report required in Part II.B.4.b., and including any other information necessary to determine and minimize the potential for degradation of waters of the State and the impact to human health and the environment. Submittal of the final report does not relieve the Permittee from any additional actions, assessments, or evaluations that may be required by the Division

#### C. Administrative Requirements

1. A valid Permit must be maintained until permanent closure and post closure monitoring are complete. Therefore, unless permanent closure and post closure monitoring have been completed and termination of the Permit has been approved in writing by the Division, the Permittee shall apply for Permit renewal not later than 120 days before the Permit expires.
2. Except as required by NAC 445A.419 for a Permit transfer, the Permittee shall submit current Permit contact information described in paragraphs (a) through (c) of subsection 2 of NAC 445A.394 within 30 days after any change in previously submitted information.
3. All reports and other information requested by the Administrator shall be signed and certified as required by NAC 445A.231.
4. Samples shall be analyzed by a laboratory certified or approved by the State of Nevada, as applicable for the method(s) being performed. The Permittee must identify in all required reports the certified and approved laboratories used to perform the analyses, laboratory reference numbers, and sample dates, and for the electronic version of each report only, include all associated laboratory analytical reports, including test results, test methods, chain-of-custody forms, and quality assurance/quality control documentation.
5. When ordered consistent with Nevada Statutes, the Permittee shall furnish any relevant information in order to determine whether cause exists for modifying, revoking and reissuing, or permanently revoking this Permit, or to determine compliance with this Permit.
6. The Permittee shall maintain a copy of, and all modifications to, the current Permit at the permitted facilities at all times.
7. The Permittee is required to retain during operation, closure and post-closure monitoring, all records of monitoring activities and analytical results, including all original strip chart or data logger recordings for continuous monitoring instrumentation, and all calibration and maintenance records. This period of retention must be extended during the course of any unresolved litigation.
8. The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held

invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not thereby be affected.

9. The Permittee is authorized to manage fluids and solid wastes in accordance with the conditions of this Permit. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State, or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Water Pollution Control Statutes for releases or discharges from facilities or units not regulated by this Permit. NRS 445A.675 provides that any person who violates a Permit condition is subject to administrative or judicial action provided in NRS 445A.690 through 445A.705.

#### D. Division Authority

The Permittee shall allow authorized representatives of the Division, at reasonable times, and upon the presentation of credentials to:

1. Enter the premises of the Permittee where a regulated activity is conducted or where records are kept per the conditions of this Permit;
2. Have access to and copy any record that must be kept per the conditions of this Permit;
3. Inspect and photograph any facilities, equipment (including monitoring and control equipment), practices, or operations regulated by this Permit; and
4. Sample or monitor for any substance or parameter at any location for the purposes of assuring Permit and regulatory compliance.

#### E. Sampling and Analysis Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. For each measurement or sample taken pursuant to the conditions of this Permit, the Permittee shall record the following information:
  - a. The exact place, date, and time of the inspection, observation, measurement, or sampling; and
  - b. The person(s) who inspected, observed, measured, or sampled.
3. Samples must be taken, preserved, and labeled according to Division approved methods.
4. Standard environmental monitoring chain of custody procedures must be followed.
5. Samples shall be analyzed by a laboratory certified or approved by the State of Nevada, as applicable for the method(s) being performed. The Permittee must identify in all required reports the certified and approved laboratories used to perform the analyses, laboratory reference numbers, and sample dates, and for

the electronic version of each report only, include all associated laboratory analytical reports, including test results, test methods, chain-of-custody forms, and quality assurance/quality control documentation.

6. The accuracy of analytical results, unless otherwise specified, shall be expressed in mg/L and be reliable to at least two significant digits. The analytical methods used must have a practical quantitation limit (PQL) equal to or less than one-half the reference value for Profile I parameters. Laboratories shall report the lowest reasonable PQL based on in-house method detection limit studies. Samples for Profile I parameters shall be filtered and analyzed for the dissolved fraction, unless otherwise required by the Division. Unless otherwise approved by the Division, analytical results that are less than the PQL shall be reported quantitatively by listing the PQL value preceded by the "<" symbol.

#### F. Permit Modification Requirements

1. Any material modification, as defined at NAC 445A.365, plan to construct a new water management process component, or proposed change to Permit requirements must be reported to the Division by submittal of an application for a Permit modification, or if such changes are in conformance with the existing Permit, by submittal of a written notice of the changes. The Permit modification application must comply with NAC 445A.391 through 445A.399, 445A.410, 445A.412, 445A.414, 445A.4155, 445A.416, 445A.417, 445A.440, and 445A.442, as applicable. The construction or modification shall not commence, nor shall a change to the Permit be effective, until written Division approval is obtained.
2. Prior to the commencement of mining activities at any site within the State which is owned or operated by the Permittee but not identified and characterized in a previously submitted application or report, the Permittee shall submit to the Division a report which identifies the locations of the proposed mine areas and waste disposal sites, and characterizes the potential of mined materials and areas to release pollutants. Prior to development of these areas the Division shall determine if any of these new sources will be classified as process components and require engineered containment as well as Permit modification.
3. The Permittee shall notify the Division in writing at least 30 days before the introduction of dewatering water into a new water management process component or into an existing water management process component that has been materially modified, or of the intent to commence active operation of that water management process component. Before introducing dewatering water or commencing active operation, the Permittee shall obtain written authorization from the Division.
4. The Permittee must obtain a written determination from the Administrator of any planned water management process component construction or material

modification, or any proposed change to Permit requirements, as to whether it is considered a Permit modification, and if so, what type.

5. The Permittee must give advance notice to the Administrator of any planned changes or activities which are not material modifications in the permitted facility that may result in noncompliance with Permit requirements.

Prepared by: Natasha Zittel

Date: 19 June 2018

Revision 00: New Permit

## FACT SHEET

(Pursuant to Nevada Administrative Code (NAC) 445A.236)

Permittee Name: **Barrick Cortez Inc.**

Project Name: **Grass Valley Infiltration Project**

Permit Number: **NEV2018107**

Review Type/Year/Revision: **New Permit 2018, Fact Sheet Revision 00**

### **A. Location and Description**

The facility is located in Eureka and Lander Counties, within Sections 1, 12, and 13, Township 26 North (T26N), Range 47 East (R47E); Sections 6, 7, 17, 18, 19, and 20, T26N, R48E; and Section 31, T27N, R48E, Mount Diablo Baseline and Meridian, approximately 40 miles southeast of the town of Battle Mountain, Nevada. The facility is located on both private land controlled by the Permittee and public land administered by the U.S. Bureau of Land Management (BLM), Mount Lewis Field Office in Battle Mountain, Nevada. The site may be accessed by traveling approximately 40 miles west from Elko, or 30 miles east from Battle Mountain, on Interstate Highway 80, then 31 miles south on Nevada State Route 306, then 9 miles southeast on Lander County Road 222.

General Description: The Grass Valley Infiltration Project consists of infiltration of mine dewatering water at a maximum rate of 8,500 gallons per minute (gpm; equivalent to 12,240,000 gallons per day (gpd)) via rapid infiltration basins (RIBs) located in Grass Valley. The Grass Valley infiltration site will contain four RIBs. The facilities must be designed, constructed, operated, and closed without any discharge or release in excess of those standards established in regulation, except as authorized in the Permit and for meteorological events which exceed the 24-hour, 25-year design storm event.

### **B. Synopsis**

**General:** The Permittee mines gold ore from the Pipeline Project (Water Pollution Control Permit (WPCP) NEV0093109) and Cortez Hills deposit (WPCP NEV2007106) by open pit extraction methods, and conducts underground mining for the Cortez Hills deposit, all from elevations below the pre-mining groundwater table in the southern portion of Crescent Valley. Therefore, the operation requires a dewatering program to extract groundwater from within the excavations and from the periphery of the open pit and underground workings in advance of mining. Dewatering water from the Cortez mining operation is infiltrated under this Permit, the Pipeline Infiltration Project (WPCP NEV0095111), and Pine Valley Infiltration Project (WPCP NEV2018109). The Grass Valley facility will consist of four RIBs, a booster pump station, surface pipelines, and associated infrastructure and apparatuses.

The facility is located in the northern portion of Grass Valley, on the southwest flank of the Cortez Mountains, between the elevations of 5,700 feet above mean sea level (amsl) and 5,980 feet amsl. The facility provides for return of the Cortez Hills Mine dewatering water to Grass Valley in order to compensate inter-basin transfers of groundwater out of the Grass Valley basin.

**Infiltration System Design:** The Project begins at the dewatering pipeline leading from the dewatering well DW-15 manifold at the western perimeter of the existing Cortez Hills open pit. The dewatering pipeline extends southward into Grass Valley and west of the Cortez hills Area 34 heap leach facility. South of the Grass Valley heap leach facility, the dewatering pipeline will be connected to the Cortez hills pump station before continuing towards the southeast and terminating at the Grass Valley Infiltration Basins approximately 2 miles south of the Cortez Hills open pit. The project is designed to infiltrate up to 8,500 gpm, the dewatering delivery pipeline system is designed to convey an addition of 4,300 gpm for a total of 12,800 gpm. The additional 4,300 gpm will be conveyed to the future infiltration sites proposed in Pine Valley (WPCP NEV2018109).

The dewatering pipeline will be approximately 26,000 feet in length and will consist of a single 30-inch diameter high-density polyethylene (HDPE) pipe with a standard dimension ratio of 17 or a 30-inch diameter steel pipe. At road crossings, the pipe will be inserted into a 36-inch diameter corrugated polyethylene pipe. The pipeline will be constructed with various air/vacuum valves, expansion joints, butterfly joints, and pipe drains.

**Cortez Hills Pump Station:** The Cortez Hills Pump Station is located approximately 2.5 miles south of the DW-15 manifold. The station will consist of three centrifugal split case pumps with the motor starters housed in an enclosed metal building. The pumps will be mounted on a 2-foot thick concrete foundation base.

**RIB Construction and Water Management:** The RIBs will be constructed on an alluvial fan. Each of the four Grass Valley RIBs will be 200 feet wide and 1,000 feet long at the crest. Basins are designed to be 20 feet deep with 3 horizontal to 1 vertical inside slopes. An infiltration enhancement trench will be constructed within the floor of each basin. These trenches are designed to be approximately 16 feet deep and 4 feet wide and are filled with pit-run aggregate material. The aggregate material shall be sized with 50-percent passing 1-inch and without fines passing a number 200-mesh screen.

Within the infiltration site, the dewatering water is distributed to each RIB through dedicated 14-inch diameter HDPE RIB inlet pipes equipped with butterfly valves, which are used to manage flow amongst two or more RIBs. The RIB inlet pipe runs down the RIB side slope to the bottom of the basin, typically near one end of the RIB. The inlet pipeline terminates into a 3-foot thick by 10-foot square layer of riprap having a mass median diameter ( $D_{50}$ ) of 9 inches. There are no totalizers or flow meters at individual RIBs as the flow is totalized at the Cortez Hills Pump Station.

The RIBs are constructed in pairs, one upgradient and one downgradient, typically 100 to 200 feet apart. The upgradient RIB has a 5-foot diameter basin overflow manhole located within the lower sideslope of the RIB. The manhole is constructed of precast concrete rings to a height of 7 feet above a concrete base set into the floor of the RIB. If water in the RIB reaches the top of the manhole, it will overflow through a trash screen and flow by gravity through a 16-inch diameter HDPE overflow pipe that discharges into the downgradient RIB. Each downgradient RIB, therefore, includes two inlet pipes: the overflow pipeline from the upgradient RIB, and the normal RIB inlet distribution pipe. Both inlets are constructed to the same design as the RIB inlet pipe termination structure described above. The spillway connects to a surface rip-rap apron downgradient of the RIB. The spillway is a minimum of 10 feet wide and 2 feet deep, with a 12-inch thick layer of riprap over a base layer of geotextile. The Permit prohibits surface discharges from RIBs; spillways are constructed for emergency use only.

**Petroleum-Contaminated Soil Management:** No PCS storage or disposal is approved for the facility. The Permittee is required to remove all PCS from the facility for provisional storage and disposal at the approved Pipeline Project waste rock dump (WPCP NEV0093109) in accordance with the approved PCS Management Plan and the Division Guidance for Mine-Site PCS Management Plans.

#### C. Receiving Water Characteristics

In the Project area, groundwater is localized in structural bedrock aquifers with no substantial water-bearing zones in the alluvium. Groundwater flow is controlled by the numerous north-south and east-west trending faults and fractures. Local bedrock has generally low hydraulic conductivity.

Groundwater depths range from 100 feet below ground surface (bgs) to 300 feet bgs. Receiving waters are located in the northern portion of Grass Valley (State of Nevada Hydrographic Basin #138). Grass Valley is closed topographically. The Toiyabe Range separates Grass Valley from the southernmost part of Crescent Valley (State Hydrographic Basin #54); the southern Cortez Mountains and northernmost section of the Simpson Park Range separate the northern part of Grass Valley from Pine Valley (State Hydrographic Basin #53) to the east.

Through hydraulic studies, the Permittee determined that dewatering activities for the Cortez Complex in Crescent Valley, is drawing small amounts of water from Grass Valley and Pine Valley. Baseline groundwater chemistry for Grass Valley is circum-neutral (pH). Baseline characteristics of several analyses periodically exceed Division Profile I reference values (drinking water standards) in one or more locations for arsenic, iron, and manganese.

There are no surface waterways, springs, and seeps within a mile of the Project.

**D. Procedures for Public Comment**

The Notice of the Division's intent to issue a Permit authorizing the discharge, subject to the conditions within the Permit, is being sent to the **Battle Mountain Bugle** for publication. The Notice is being mailed to interested persons on the Bureau of Mining Regulation and Reclamation mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date of public notice. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. The public hearing must be conducted in accordance with Nevada Revised Statutes (NRS) Chapter 233B, unless waived by the applicant.

**E. Proposed Determination**

The Division has made the tentative determination to issue the Permit.

**F. Proposed Limitations, Schedule of Compliance, Monitoring, Special Conditions**

See Section I of the Permit.

**G. Rationale for Permit Requirements**

The facility must not discharge a pollutant that would result in the degradation of existing or potential underground sources of drinking water, or that would cause an exceedance of an applicable surface water quality standard or regulation.

The primary methods for ensuring compliance will be required routine monitoring and reporting, augmented by Division site inspections. Specific monitoring requirements can be found in the Permit.

## **H. Federal Migratory Bird Treaty Act**

Under the Federal Migratory Bird Treaty Act, 16 U.S. Code 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 Code of Federal Regulations 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service is authorized to enforce the prevention of migratory bird mortalities at ponds. Compliance with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g., by covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

Prepared by: Natasha Zittel

Date: 25 June 2018

Revision 00: New Permit.



# United States Department of the Interior



## BUREAU OF LAND MANAGEMENT

Mount Lewis Field Office

50 Bastian Road

Battle Mountain, Nevada 89820

Phone: 775-635-4000

Fax: 775-635-4034

<https://www.blm.gov/nevada>

In Reply Refer To:  
3809 (NVB0100)  
NVN-96144

JUL 18 2018

Dear Interested Public:

BATTLE MOUNTAIN, Nev. – The Bureau of Land Management, Mount Lewis Field Office, has completed its analysis of U.S. Gold Corporation's (U.S. Gold) Keystone Exploration Project and has provided the Environmental Assessment for a 30-day public comment period.

U.S. Gold is proposing to conduct surface exploration drilling operations on its Keystone Exploration Project to explore for precious metal mineral resources on public lands located in Eureka County, Nevada, approximately 54 miles southeast of Battle Mountain.

The Environmental Assessment included coordination with the Nevada Department of Wildlife, as well as U.S. Fish and Wildlife Service, tribal governments and other interested parties. Alternatives in the EA examined the range of potential issues such as cultural resources, soils, water resources, air quality, hazardous or solid wastes, vegetation, grazing, noise, visual resources, invasive and non-native species, wetlands and riparian zones, wildlife, migratory birds, special status species, recreation, wilderness, and cumulative effects

The EA and other relevant documents are available on the BLM ePlanning webpage at <https://go.usa.gov/xU5up> and hardcopies of these documents are available for review at the MLFO at the above address during regular business hours, 7:30 a.m. to 4:30 p.m., Monday through Friday.

If you have any questions or require clarification on this EA, please call Kevin Hurrell, Planning and Environmental Coordinator at (775) 635-4000.

Sincerely

Jon D. Sherve  
Field Manager  
Mount Lewis Field Office



## NOTICE OF PUBLIC COMMENT PERIOD BEGINNING JULY 20, 2018 AND A PUBLIC HEARING ON August 29, 2018, IF REQUESTED

Conducted by the Nevada Division of Environmental Protection  
Bureau of Air Quality Planning

Pursuant to the public hearing requirements in Title 40 of the Code of Federal Regulations Part 51 section 102, the Nevada Division of Environmental Protection (NDEP) is issuing the following notice and is taking comment on a proposal to certify that the existing Nevada State Implementation Plan (SIP) is adequate for implementation of the 2015 8-hour ozone national ambient air quality standards (NAAQS).

On October 26, 2015, the United States Environmental Protection Agency (USEPA) revised the 8-hour primary and secondary ozone NAAQS to a level of 0.070 parts per million (ppm) (80 FR 65292). When the USEPA promulgates a new standard or revises an existing standard, Clean Air Act (CAA) section 110(a)(1) requires each state to submit a plan showing it has the authority and programs needed to implement, maintain, and enforce the standard, regardless of designation status; section 110(a)(2) lists the elements that must be addressed in the plan. Because many of the section 110(a)(2) elements relate to the general information and authorities that constitute the infrastructure of a state's air quality management program, the 110(a) plans are generally referred to as "infrastructure SIPs." Nevada's 2015 ozone NAAQS infrastructure SIP is a compilation of Nevada's existing authorities and programs to demonstrate that Nevada has a plan in place to address the 2015 ozone NAAQS. Nevada's ozone infrastructure SIP will be submitted to the USEPA by October 1, 2018.

The NDEP is responsible for developing and implementing state plans in the 15 rural counties of Nevada. Clark County and Washoe County have their own air quality agencies, which are responsible for their respective counties. The NDEP adopted the revised 2015 ozone NAAQS as the State air quality standard and prepared a draft ozone plan demonstrating that with the adoption of the federal standard Nevada's existing authority and programs meet the requirements of the Clean Air Act. The NDEP's portion of the Nevada ozone infrastructure SIP and related materials are available on the NDEP website at <https://ndep.nv.gov/posts>. Access to the draft document may also be obtained by contacting Sig JaunaraJs at NDEP, 901 S. Stewart Street, Suite 4001, Carson City, NV 89701; (775) 687-9392; or e-mail to [sjaunara@ndep.nv.gov](mailto:sjaunara@ndep.nv.gov).

Persons wishing to comment on the proposed Nevada Clean Air Act section 110(a)(2) submittal or to request a public hearing should submit their comments or request in writing either in person or by mail to Sig JaunaraJs at the above address. ***A request for a hearing must be received by August 21, 2018. Written comments will be received by the NDEP until 5:00 PM PST, August 29, 2018 and will be retained and considered.***

Upon receipt of a valid written request, the NDEP will hold a public hearing in Carson City with video conference to Las Vegas on:

**August 29, 2018  
9:00 a.m. to 12:00 p.m.**

**Great Basin Conference Room  
4<sup>th</sup> Floor  
901 S. Stewart Street  
CARSON CITY**

**Video Conference to  
NDEP Red Rock Conference Room  
2030 E. Flamingo Road, Ste. 230  
LAS VEGAS**

An agenda will be posted on the NDEP web site at least 3 working days before the hearing. Oral comments will be received at the Hearing. If no request for a public hearing is received by August 21, 2018, the hearing will be cancelled. Persons may check on the status of the hearing on the NDEP web site at <https://ndep.nv.gov/posts> or you may call the NDEP Bureau of Air Quality Planning at (775) 687-9349.

*This notice has been posted at the NDEP offices in Carson City and Las Vegas, at the State Library in Carson City and at County libraries throughout Nevada. Members of the public who are disabled and require special accommodations or assistance at the hearing are requested to notify Sig JaunaraJs (775-687-9392) or Ann McKnight (775-687-9349) no later than 3 working days before the hearing.*

BRIAN SANDOVAL  
Governor

Department of Conservation and Natural Resources  
Bradley Crowell, Director  
James Lawrence, Deputy Director  
Dominique Etchegoyhen, Deputy Director

Nevada Commission on Off-Highway Vehicles  
Greg McKay, Chair  
Sue Baker, Vice Chair



**STATE OF NEVADA**  
**Off-Highway Vehicles Program**

901 South Stewart Street, Suite 1003  
Carson City, Nevada 89701  
Telephone (775) 684-2794  
[ohv.nv.gov](http://ohv.nv.gov)



## Let your voice be heard: Input sought to enhance Nevada's off-road adventures

July 2, 2018

To whom it may concern:

The Nevada Department of Conservation and Natural Resources and the Nevada Commission on Off-Highway Vehicles are pleased to offer Nevada municipalities and residents the opportunity to provide input and help shape the future of Nevada's vast off-highway recreational experiences. By completing a quick online survey, you can help guide recommendations for upcoming off-highway vehicle (OHV) legislation, and assist in prioritizing projects to be funded by OHV registration fees. Please take a moment to complete the survey at: <https://www.surveymonkey.com/r/L58NBY7>. The survey results and recommendations will be available online at [ohv.nv.gov](http://ohv.nv.gov) by January 1, 2019.

In Nevada, numerous OHV recreationists and law enforcement professionals have expressed that the current language in NRS 490 is confusing and often misinterpreted. As part of our dedication to engaging and empowering our residents and municipalities, in every corner of Nevada, the survey results will help us understand if and how Nevada's OHV laws should be revised to better serve the needs of our communities. In addition to taking the survey, if the following statutes are of special interest to your town, county, and/or department/office, please send written comments on how you feel the statutes should be revised and/or clarified to: (insert address and/or email address)

In 2017, the 79th Session of the Nevada Legislature passed Assembly Bill 29, , directing the Commission on Off-Highway Vehicles to evaluate the presumption set forth in NRS 490.090 to NRS 490.130 inclusive, "that the operation of an off-highway vehicle on a paved highway is prohibited unless authorized by a governmental entity." (See attached Exhibits A and B).

Please take the opportunity to consider the question of statute revision as it relates to economic vitality for our rural communities. Here, we've provided additional information on the concept of OHV-friendly communities:

*"If you're familiar with the ATV community, you may have heard of the Paiute Trail System in Utah," states Jenny Scanland, Nevada Off-Highway Vehicles Program. "Riders frequently travel to these communities, spend the night at local hotels, dine at local restaurants, and spend money in these rural OHV destinations. We have the unique opportunity to make OHV tourism a hallmark in Nevada. Visitors from around the nation can enjoy hundreds of miles of vibrant OHV trails statewide, and stay at our hotels or camp at a Nevada State Park. Our municipalities and counties can help bring this vision to life by identifying how and where OHVs can travel safely and legally within their jurisdictions. It's important that these routes are mapped and available to the local residents and out-of-state visitors."*

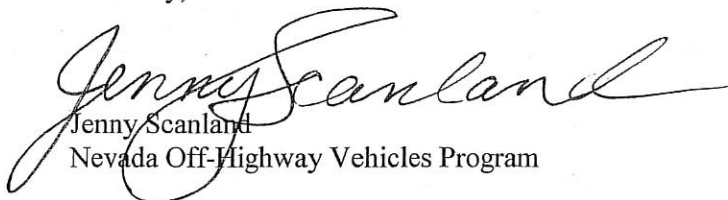
Several towns and counties in Nevada are passing resolutions to make their communities more "OHV Friendly". Examples of materials from western OHV Friendly Communities, including the Moapa Valley area, are attached to this letter.. These municipal resolutions by local municipalities specify which roads are

open and closed to OHVs. . Through planning and passing resolutions, municipalities can enable OHV riders to better understand where they can and cannot ride. If municipalities do not complete planning and resolutions, the confusion concerning the presumption that all paved highways in their jurisdictional area are prohibited for use by OHVs remains an issue.

As you may know, the opportunity exists for Nevada OHV registration dollars to assist communities in their efforts to become OHV Friendly Communities through the Nevada Off-Highway Vehicles Program. The Commission on Off-Highway Vehicles has voted to include Economic Integration as a criteria for selecting future grant recipients and requests applications for projects that develop outdoor recreation opportunities that help local, regional, and/or state economies grow and thrive. Eligible tasks include the planning, mapping, purchase, installation, and maintenance of signs for implementing resolutions.

If you have any questions or would like further information, please contact Jenny Scanland at (775-684-2794) or email at [jscanland@ohv.nv.gov](mailto:jscanland@ohv.nv.gov)). Thank you for supporting Nevada's extraordinary off-highway recreational opportunities, which will continue to benefit our residents and visitors for generations to come.

Sincerely,



Jenny Scanland  
Nevada Off-Highway Vehicles Program

Attachments:

EXHIBIT A – NV-AB29 Sec. 11.5.

EXHIBIT B – NRS 490, exhibit B Rules of Operation

EXHIBIT C – Resolution example



## Silverton OHV Routes



# Moapa Valley OHV Roundup

November 13-15, 2015



**F  
R  
E  
E**

Help celebrate Moapa Valley's designation as Clark County's First  
**OHV FRIENDLY COMMUNITY**



**FREE Trail Maps**

**Hill Climb**

**3D Targets**

**Vendor Booths**

**Live Music and Games**

**RV Camping Available**



**Clark County Fairgrounds**  
**1301 Whipple Ave**  
**Logandale, NV 89021**

**playinourdirt.com**

## EXHIBIT A – NV-AB29 Sec. 11.5.

**As soon as practicable after July 1, 2017, the Commission on Off-Highway Vehicles shall:**

1. Evaluate whether the statutory presumption set forth in NRS 490.090 to NRS 490.130, inclusive, that the operation of an off-highway vehicle on a paved highway is prohibited unless authorized by a governmental entity should be amended.
2. Conduct a survey of local governmental entities and other interested parties to solicit input for the evaluation required pursuant to subsection 1.
3. Develop recommendations for legislation to make any such amendments as may be proposed based on the evaluation made pursuant to subsection 1.
4. On or before January 1, 2019, submit the recommendations developed pursuant to Subsection 3 to the Director of the Legislative Counsel Bureau for transmission to the 80th Session of the Nevada Legislature.

## EXHIBIT B - RULES OF OPERATION

**NRS 490.090 Operation on undesignated paved highways generally prohibited; exceptions; operation on public land, trails, ways or unpaved county roads authorized unless prohibited by governmental entity having jurisdiction; authority of governmental entities having jurisdiction to distribute information concerning prohibited areas and to erect signs designating prohibited areas.** Except as otherwise provided in NRS 490.100 or 490.110:

1. A person shall not, except as otherwise provided in subsection 2 or 3, operate an off-highway vehicle on a paved highway that is not otherwise designated for use by off-highway vehicles.

2. A person may operate an off-highway vehicle on a paved highway that is not otherwise designated for use by off-highway vehicles:

(a) If the off-highway vehicle is operated on the highway for the purpose of crossing the highway, comes to a complete stop before crossing and crosses as close as practicable to perpendicular to the direction of travel on the highway;

(b) If the off-highway vehicle is operated on the highway for the purpose of loading or unloading the off-highway vehicle onto or off of another vehicle or trailer, if the loading or unloading is as close as practicable to the place of operation of the off-highway vehicle;

(c) During an emergency if it is impossible or impracticable to use another vehicle or if a peace officer directs the operation of the off-highway vehicle; or

(d) If the off-highway vehicle is operated on a portion of a highway that is designated as a trail connector for a trail authorized for use by off-highway vehicles for not more than 2 miles.

3. A person may operate an off-highway vehicle on any public land, trail, way or unpaved county road unless prohibited by the governmental entity which has jurisdiction over the public land, trail, way or unpaved county road.

4. A governmental entity specified in subsection 3 may:

(a) Prepare and distribute upon request a map or other document setting forth each area of public land, trail, way or unpaved county road that is prohibited for the operation off-highway vehicles; and

(b) Erect and maintain signs designating each area of public land, trail, way or unpaved county road that is prohibited for the operation off-highway vehicles.

(Added to NRS by 2005, 2027)

**NRS 490.100 Authority of city or county to designate portion of highway for off-highway vehicle use; approval of Department of Transportation regarding state highways; interstate highways excluded; supervision of certain minors; limitation on purpose of use.**

1. Except as otherwise provided in subsection 2, a city or county may designate any portion of a highway within the city or county as permissible for the operation of off-highway vehicles for the purpose of allowing off-highway vehicles to reach a private or public area that is open for use by off-highway vehicles. If a city or county designates any portion of a state highway as permissible for the operation of off-highway vehicles pursuant to this subsection, the city or county must obtain approval for the designation from the Department of Transportation. The Department of Transportation shall issue a timely decision concerning the request for approval and must not unreasonably deny the request.

2. The highway designated for operation of off-highway vehicles pursuant to subsection 1 may not consist of any portion of an interstate highway.

3. If a city or county designates a highway for the operation of off-highway vehicles, the city or county may adopt an ordinance requiring a person who is less than 16 years of age and who is operating the off-highway vehicle on a designated highway to be under the direct visual supervision of a person who is at least 18 years of age.

4. A person operating an off-highway vehicle on a highway designated for operation of off-highway vehicles pursuant to subsection 1 may not operate the off-highway vehicle on the highway for any purpose other than to travel to or from the private or public area as described in subsection 1.

(Added to NRS by 2005, 2027; A 2009, 3103; 2011, 293)

**NRS 490.105 Large all-terrain vehicle: Operation on certain roads authorized; conditions; local governing body may prohibit by ordinance or resolution.**

1. Except as otherwise provided in subsection 2, a person may operate a large all-terrain vehicle on any portion of a highway that has been designated in accordance with NRS 403.170 as a general county road or minor county road if the large all-terrain vehicle:

(a) Meets the requirements set forth in NRS 490.120; and

(b) Is registered by the Department in accordance with NRS 490.0825 as a motor vehicle intended to be operated upon the highways of this State.

2. The governing body of a city or county within which is located a highway or portion of a highway that has been designated in accordance with NRS 403.170 as a general county road or minor county road may by ordinance or resolution prohibit the operation of large all-terrain vehicles on any portion of such a road.

(Added to NRS by 2013, 704)

**NRS 490.110 Authorized and unauthorized operation on highway.**

1. Except as otherwise provided in subsection 2, if an off-highway vehicle meets the requirements of this chapter and the operator holds a valid driver's license and operates the off-highway vehicle in accordance with the requirements of those sections, the off-highway vehicle may be operated on a highway in accordance with NRS 490.090 to 490.130, inclusive.

2. An off-highway vehicle may not be operated pursuant to this section:

(a) On an interstate highway;

(b) On a paved highway in this State for more than 2 miles;

(c) Unless the highway is specifically designated for use by off-highway vehicles in a city whose population is 100,000 or more; or

(d) Unless it is a large all-terrain vehicle registered pursuant to NRS 490.0825 and being operated in accordance with NRS 490.105.

(Added to NRS by 2005, 2028; A 2013, 709)

**NRS 490.120 Required equipment for operation on highway; exception.**

1. Except as otherwise provided in subsection 2 and in addition to the requirements set forth in NRS 490.070, a person shall not operate an off-highway vehicle on a highway pursuant to NRS 490.090 to 490.130, inclusive, unless the off-highway vehicle has:

- (a) At least one headlamp that illuminates objects at least 500 feet ahead of the vehicle;
- (b) At least one tail lamp that is visible from at least 500 feet behind the vehicle;
- (c) At least one red reflector on the rear of the vehicle, unless the tail lamp is red and reflective;
- (d) A stop lamp on the rear of the vehicle; and
- (e) A muffler which is in working order and which is in constant operation when the vehicle is running.

2. The provisions of paragraphs (a) and (b) of subsection 1 do not apply to an off-highway vehicle which is operated during daylight hours on a highway designated by a county pursuant to NRS 490.100 for the operation of the off-highway vehicle without at least one headlamp specified in paragraph (a) of subsection 1 or without at least one tail lamp specified in paragraph (b) of that subsection.

(Added to NRS by 2005, 2028; A 2013, 2871)

**NRS 490.125 Authorized operation by off-highway vehicle dealer, long-term or short-term lessor or manufacturer for purposes of display, demonstration, maintenance, sale or exchange; special plate requirements; exceptions.**

1. Except as otherwise provided in NRS 490.160, an off-highway vehicle dealer, long-term or short-term lessor or manufacturer who has an established place of business in this State and who owns or controls any new or used off-highway vehicle that is otherwise required to be registered pursuant to NRS 490.082, may operate that vehicle or allow it to be operated for purposes of display, demonstration, maintenance, sale or exchange if there is displayed thereon a special plate issued to the off-highway vehicle dealer, long-term or short-term lessor or manufacturer as provided in NRS 490.0827. Owners or officers of the corporation, managers, heads of departments and salespersons may be temporarily assigned and operate an off-highway vehicle displaying the special plate.

2. A special plate which is issued to an off-highway vehicle dealer, long-term or short-term lessor or manufacturer pursuant to NRS 490.0827 may be attached to an off-highway vehicle specified in subsection 1 by a secure means. The plate must not be displayed loosely in the window or by any other unsecured method in or on an off-highway vehicle.

3. The provisions of this section do not apply to:

(a) Work or service off-highway vehicles owned or controlled by an off-highway vehicle dealer, long-term or short-term lessor or manufacturer.

(b) Off-highway vehicles leased by off-highway vehicle dealers, long-term or short-term lessors or manufacturers, except off-highway vehicles rented or leased to off-highway vehicle salespersons in the course of their employment.

(c) Off-highway vehicles which are privately owned by the owners, officers or employees of the off-highway vehicle dealer, long-term or short-term lessor or manufacturer.

(d) Off-highway vehicles which are being used for personal reasons by a person who is not licensed by the Department or otherwise exempted in subsection 1.

(e) Off-highway vehicles which have been given or assigned to persons who work for an off-highway vehicle dealer, long-term or short-term lessor or manufacturer for services performed.

(f) Off-highway vehicles purchased by an off-highway vehicle dealer, long-term or short-term lessor or manufacturer for personal use which the off-highway vehicle dealer, long-term or short-term lessor or manufacturer is not licensed or authorized to resell.

(Added to NRS by 2013, 2867)

**NRS 490.130 Duties of operator when operating off-highway vehicle on highway.** The operator of an off-highway vehicle that is being driven on a highway in this State in accordance with NRS 490.090 to 490.130, inclusive, shall:

1. Comply with all traffic laws of this State;

2. Ensure that the registration of the off-highway vehicle is attached to the vehicle in accordance with NRS 490.083 or a special plate issued pursuant to NRS 490.0827 is attached to the vehicle; and

3. Wear a helmet.

(Added to NRS by 2005, 2028; A 2009, 3104; 2011, 292; 2013, 2871)

## EXHIBIT C – Resolution example

Sterling Codifiers, Inc.

Page 1 of 1

### HIGHWAY VEHICLES

#### 8-6-1: STATE OFF HIGHWAY VEHICLE LAWS ADOPTED:

#### 8-6-2: DESIGNATION OF COUNTY HIGHWAYS AND ROADS:

#### 8-6-3: DESIGNATION OF STATE HIGHWAYS:

#### 8-6-4: RESTRICTIONS:

#### **8-6-1: STATE OFF HIGHWAY VEHICLE LAWS ADOPTED:**

All laws governing and regulating certification and operation of off highway vehicles as set forth in chapter 490 of Nevada Revised Statutes are adopted and hereby incorporated herein. (Ord. 2006-04, 8-7-2006)

#### **8-6-2: DESIGNATION OF COUNTY HIGHWAYS AND ROADS:**

All county highways and roads within the unincorporated towns of Alamo, Panaca, and Pioche are designated as permissible for the operation of off highway vehicles for the limited purpose of allowing off highway vehicles ingress and egress to private or public areas that are open for the use of off highway vehicles. Off highway vehicles shall not be operated on designated highways or roads for any purpose other than travel to or from (ingress and egress) the private or public area open for the use of off highway vehicles. (Ord. 2006-04, 8-7-2006)

#### **8-6-3: DESIGNATION OF STATE HIGHWAYS:**

- A. Within the town of Alamo, U.S. Highway 93 from northern town limits to southern town limits.
- B. Within the town of Panaca, U.S. Highway 93 from Airport Road Intersection to intersection with State Route ("SR") 319. SR 319 from intersection with U.S. Highway 93 to eastern boundaries of town limits.
- C. Within the town of Pioche, SR 321 from intersection with SR 322 to northern town limits. SR 322 from intersection with SR 321 to eastern town limits. (Ord. 2006-04, 8-7-2006)

#### **8-6-4: RESTRICTIONS:**

A person who is less than sixteen (16) years of age is prohibited from operating the off highway vehicle on a designated highway unless supervised by a person who is at least eighteen (18) years of age. (Ord. 2006-04, 8-7-2006)



NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**

STATE OF NEVADA  
Department of Conservation & Natural Resources  
Brian Sandoval, Governor  
Bradley Crowell, Director  
Greg Lovato, Administrator

Notice of Proposed Action

By the

State of Nevada

The Administrator of the Division of Environmental Protection (the Division) gives notice that an application for renewal of a Water Pollution Control Permit for the May Turquoise Mine, a mining and beneficiation facility, has been properly filed with the Division of Environmental Protection in Carson City. The Applicant for renewal of Water Pollution Control Permit NEV2008102 (Permit) is:

Red Widow Mining Company, Inc.  
633 6<sup>th</sup> Street  
Crescent Valley, NV 89821

The facility is located on public land in Lander County, within Section 28, T29N, R47E, MDB&M, approximately 6 miles southwest of the town of Crescent Valley.

The Project consists of an open pit mining and physical separation facility, pursuant to Nevada Administrative Code (NAC) 445A.414.

The Administrator is constrained to either issue the renewed Permit or to deny the application. The Administrator has made the tentative decision to issue the renewed Permit.

Persons wishing to comment upon the proposed Permit, to recommend terms and conditions for consideration of incorporation into the Permit, or who request a public hearing pursuant to NAC 445A.403, must submit their written comments, objections, or requests by hand delivery or US Postal Service, or by facsimile or e-mail transmittal, no later than 5:00 PM on the 30<sup>th</sup> day following the date of publication of this notice (submittal end date 24 August 2018) to:

Division of Environmental Protection  
Bureau of Mining Regulation and Reclamation  
901 South Stewart Street, Suite 4001  
Carson City, NV 89701-5249

All comments, objections, or requests received during the public notice period will be considered in the final determination regarding the Permit. If the Division determines written comments or requests indicate a significant degree of public interest in this matter,

the Administrator shall schedule a public hearing in accordance with the requirements of NAC 445A.405.

The draft Permit and all application documents are on file at the Division and are available for public inspection and copying pursuant to Nevada Revised Statute 445A.665. For more information, contact Natasha Zittel at (775) 687-9413 or visit the Division public notice website at <https://ndep.nv.gov/posts/category/land>.

STATE OF NEVADA  
Department of Conservation and Natural Resources  
Division of Environmental Protection  
Bureau of Mining Regulation and Reclamation

**Water Pollution Control Permit**

Permittee: **Red Widow Mining Company, Inc.  
May Turquoise Mine  
633 6<sup>th</sup> Street  
Crescent Valley, NV 89821**

Permit Number: **NEV2008102**  
Review Type/Year/Revision: **Renewal 2018, Revision 00**

Pursuant to Nevada Revised Statutes (NRS) 445A.300 through 445A.730, inclusive, and regulations promulgated thereunder by the State Environmental Commission and implemented by the Division of Environmental Protection (the Division), this Permit authorizes the Permittee to construct, operate, and close the **May Turquoise Mine**, in accordance with the limitations, requirements, and other conditions set forth in this Permit. The Permittee is authorized to process up to **10,000** tons of ore per year.

The facility is located in Lander County, within the southwest quarter of Section 28, Township 29 North, Range 47 East, Mount Diablo Baseline and Meridian, approximately six miles southwest of the town of Crescent Valley, Nevada.

The Permittee must comply with all terms and conditions of this Permit and all applicable statutes and regulations.

This Permit is based on the assumption that the information submitted in the application of 7 April 2008, as modified by subsequent approved amendments, is accurate and that the facility has been constructed and is being operated as specified in the application. The Permittee must inform the Division of any deviation from, or changes in, the information in the application, which may affect the ability of the Permittee to comply with applicable regulations or Permit conditions.

This Permit is effective as of **Day Month 2018**, and shall remain in effect until **09 October 2023**, unless modified, suspended, or revoked.

Signed this \_\_\_\_\_ day of **Month 2018**

\_\_\_\_\_  
Joseph Sawyer, P.E.  
Chief, Bureau of Mining Regulation and Reclamation

I. Specific Facility Conditions and Limitations

A. In accordance with operating plans and facility design plans reviewed and approved by the Division the Permittee shall:

1. Construct, operate, and close the facility in accordance with those plans; and
2. Not release or discharge any process or non-process contaminants from the fluid management system.

B. Schedule of Compliance:

1. Thirty (30) days prior to commencement of the trommel operation of the approved facility the Permittee shall schedule a reasonable time for the Division to conduct a facility inspection, to ascertain compliance of the constructed facility with the approved design and the Permit. Material changes to or departure from the approved designs may require additional engineering review, modification of the Permit, and payment of Permit modification fees.

C. The fluid management system covered by this Permit consists of the following process components:

1. A portable trommel and conveyor;
2. A water storage truck, Settling Pond, and Recirculation Pond; and
3. All associated tanks, chutes, pipes, hoses, valves, and pumps used in storage, conveyance, or control of process water and process solids.

D. Monitoring Requirements

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
1. <u>Make-up Water</u> Hot Spring Fish Pond (MW)	Profile I <sup>(1)</sup>	Annually in any year of operation
2. <u>Process Water</u> At Recirculation Pond (RP)	Profile I <sup>(1)</sup>	Quarterly in any quarter of operation
3. <u>Mined Materials</u> Composite sample of combined waste rock, coarse reject, and fine reject material (WR)	MWMP <sup>(2)</sup> - Profile I <sup>(1)</sup>	Annually in any year of operation

The Permittee may request a reduction of the monitoring frequency after four quarters of complete monitoring based on justification other than cost. Such reductions may be considered modifications to the Permit and require payment of modification fees.

**Abbreviations and Definitions:**

ASTM = American Society for Testing and Materials ;  $\text{CaCO}_3$  = calcium carbonate; EPA = U.S. Environmental Protection Agency; mg/L = milligrams per liter; MWMP = Meteoric Water Mobility Procedure N = nitrogen; NAC = Nevada Administrative Code; NDEP = Nevada Division of Environmental Protection; pH = the negative of the base 10 logarithm of the activity of the hydrogen ion; SU = standard units;

**Footnotes:**

(1) Profile I:

Alkalinity (as $\text{CaCO}_3$ )	Cadmium	Magnesium	Silver
Bicarbonate	Calcium	Manganese	Sodium
Total	Chloride	Mercury	Sulfate
Aluminum	Chromium	Nitrate + Nitrite (as N)	Thallium
Antimony	Copper	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Fluoride	pH ( $\pm 0.1$ SU) <sup>(3)</sup>	Zinc
Barium	Iron	Potassium	-
Beryllium	Lead	Selenium	-

(2) The Meteoric Water Mobility Procedure (MWMP) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method E 2242 (or the most current method).

(3) All sample analyses resulting in a pH value less than or equal to 5.0 SU shall also be analyzed for acidity (mg/L, as  $\text{CaCO}_3$  equivalent).

E. Quarterly and annual monitoring reports and release reporting shall be in accordance with Part II.B.

F. All sampling and analytical accuracy shall be in accordance with Part II.E.

G. Permit Limitations

1. Failure to meet a Schedule of Compliance date.
2. Except as otherwise allowed by this Permit, a minimum 2-foot freeboard shall be maintained in all ponds to avoid overtopping.
3. The use of any beneficiation chemical not approved in writing by the Division is prohibited.

4. The beneficiation of material other than that derived from sources within the boundaries of the May Claim must be approved in writing by the Division. Approval may require characterization of any new source material, modification of Permit monitoring requirements, and payment of Permit modification fees.
5. Use of make-up water from a source other than the Hot Spring Fish Pond, which was characterized in the Permit application, must be approved in writing by the Division. Approval may require characterization of any new source, modification of Permit monitoring requirements, and payment of Permit modification fees.

Exceedances of these limitations may be Permit violations and shall be reported as specified in Part II.B.4.

- H. The facility shall maintain automated or manual calibrated rain and snow gauge, which shall be monitored every day the site is manned to record precipitation (inches of water, including snow water equivalent). A written and/or electronic record of precipitation data, and any other weather data required in Part I.D, shall be maintained on site and shall be submitted to the Division upon request, with each Permit renewal application, and pursuant to Parts II.B.1 and II.B.2, as applicable, in a Division-approved electronic format.
- I. The Permittee shall inspect all control devices, systems, and facilities weekly, and during (when possible) and after major storm events. These inspections are performed to detect evidence of:
  1. Deterioration, malfunction, or improper operation of control or monitoring systems;
  2. Sudden changes in the data of any monitoring device; and
  3. Severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.
- J. Prior to initiating permanent closure activities at the facility, or any process component or other source within the facility, the Permittee must have an approved final plan for permanent closure.
- K. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 starting July 1 after the effective date of this Permit and every year thereafter until the Permit is terminated or the facility has received final closure certification from the Division.
- L. The Permittee shall not dispose of or treat Petroleum-Contaminated Soil (PCS) on the mine site without first obtaining from the Division approval of a PCS Management Plan.
- M. When performing dust suppression activities, the Permittee shall use best management practices and appropriate selection of water source and additives to prevent degradation of waters of the State. If a dust suppressant exceeds a water

quality standard and the corresponding natural background water concentration in the area where dust suppression will occur, the Permittee shall demonstrate no potential to degrade waters of the State.

N. Continuing Investigations: None Required

II. General Facility Conditions and Limitations

A. General Requirements

1. The Permittee shall achieve compliance with the conditions, limitations, and requirements of the Permit upon commencement of each relevant activity. The Administrator may, upon the request of the Permittee and after public notice (if required), revise or modify a Schedule of Compliance in an issued Permit if he or she determines good and valid cause (such as an act of God, a labor strike, materials shortage or other event over which Permittee has little or no control) exists for such revision.
2. The Permittee shall at all times maintain in good working order and operate as efficiently as possible, all devices, facilities, or systems installed or used by the Permittee to achieve compliance with the terms and conditions of this Permit.
3. Whenever the Permittee becomes aware that he or she failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Administrator, the Permittee shall promptly submit such facts or correct information. Any inaccuracies found in this information may be grounds for revocation or modification of this Permit and appropriate enforcement action

B. Reporting Requirements

1. The Permittee shall submit quarterly reports which are due to the Division on or before the 28<sup>th</sup> day of the month following the quarter and must contain the following:
  - a. Analytical results of the water quality sample collected from the monitoring location identified in Part I.D.2, reported on NDEP Form 0190 or equivalent;
  - b. A record of releases, and the remedial actions taken in accordance with the approved Emergency Response Plan on NDEP Form 0490 or equivalent; and
  - c. A brief summary of site operations, including dates of operation.

Facilities which have not initiated mining or construction, must submit a quarterly report identifying the status of mining or construction. Subsequent to any noncompliance or any facility expansion which provides increased capacity, the Division may require an accelerated monitoring frequency.

2. The Permittee shall submit an annual report by February 28<sup>th</sup> of each year, for the preceding calendar year, which contains the following:

- a. Analytical results for the water quality sample collected from the Make-up Water supply location identified in Part I.D.1, reported on NDEP Form 0190 or equivalent;
  - b. Analytical results of the MWMP testing for the materials identified in Part I.D.3, reported on NDEP Form 0190 or equivalent;
  - c. A synopsis of releases on NDEP Form 0390 or equivalent;
  - d. A brief summary of site operations, including the number of tons of ore mined during the year, construction and expansion activities, and any major problems with the fluid management system;
  - e. A table of total monthly precipitation amounts and other weather data, as applicable, recorded in accordance with Part I.H, reported for either a five-year history previous to the date of submittal or the history since the initial Permit issuance, whichever is shorter;
  - f. An updated version of the facility monitoring and sampling procedures and protocols;
  - g. An updated evaluation of the closure plan using specific characterization data for each process component with respect to achieving stabilization; and
  - h. Graphs of pH, total dissolved solids (TDS), sulfate, chloride, nitrate + nitrite (as N), aluminum, fluoride, zinc, and arsenic concentration, versus time for all fluid sampling points. These tables shall display a five-year history previous to the date of submittal or the history since the initial Permit, whichever is shorter. Additional parameters may be required by the Division if deemed necessary.
3. Release Reporting Requirements: The following applies to facilities with an approved Emergency Response Plan. If a site does not have an approved Emergency Response Plan, then all releases must be reported as per NAC 445A.347 or NAC 445A.3473, as appropriate.
- a. A release of any quantity of hazardous substance, as defined at NAC 445A.3454, to surface water, or that threatens a vulnerable resource, as defined at NAC 445A.3459, must be reported to the Division as soon as practicable after knowledge of the release, and after the Permittee notifies any emergency response agencies, if required, and initiates any action required to prevent or abate any imminent danger to the environment or the health or safety of persons. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b.
  - b. A release of a hazardous substance in a quantity equal to or greater than that which is required to be reported to the National Response Center pursuant to 40 Code of Federal Regulations (CFR) Part 302 must be reported as required by NAC 445A.3473 and Part II.B.3.a.

- c. A release of a non-petroleum hazardous substance not subject to Parts II.B.3.a. or II.B.3.b., released to soil or other surfaces of land, and the total quantity is equal to or exceeds 500 gallons or 4,000 pounds, or that is discovered in or on groundwater in any quantity, shall be reported to the Division no later than 5:00 P.M. of the first working day after knowledge of the release. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b. Smaller releases, with total quantity greater than 25 gallons or 200 pounds and less than 500 gallons or 4,000 pounds, released to soil or other surfaces of land, or discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.
  - d. Petroleum Products and Coolants: If a release is subject to Parts II.B.3.a. or II.B.3.b., report as specified in Part II.B.3.a. Otherwise, if a release of any quantity is discovered on or in groundwater, or if the total quantity is equal to or greater than 100 gallons released to soil or other surfaces of land, report as specified in Part II.B.3.c. Smaller releases, with total quantity greater than 25 gallons but less than 100 gallons, released to soil or other surfaces of land, or if discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.
4. The Permittee shall report to the Administrator any noncompliance with the Permit.
- a. Each such event shall be reported orally by telephone to (775) 687-9400, not later than 5:00 P.M. of the next regular work day from the time the Permittee has knowledge of the circumstances. This report shall include the following:
    - i. Name, address, and telephone number of the owner or operator;
    - ii. Name, address, and telephone number of the facility;
    - iii. Date, time, and type of incident, condition, or circumstance;
    - iv. If reportable hazardous substances were released, identify material and report total gallons and quantity of contaminant;
    - v. Human and animal mortality or injury;
    - vi. An assessment of actual or potential hazard to human health and the environment outside the facility; and
    - vii. If applicable, the estimated quantity of material that will be disposed and the disposal location.
  - b. A written summary shall be provided within 10 days of the time the Permittee makes the oral report. The written summary shall contain:
    - i. A description of the incident and its cause;

- ii. The periods of the incident (including exact dates and times);
  - iii. If reportable hazardous substances were released, the steps taken and planned to complete, as soon as reasonably practicable, an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269;
  - iv. Whether the cause and its consequences have been corrected, and if not, the anticipated time each is expected to continue; and
  - v. The steps taken or planned to reduce, eliminate, and prevent recurrence of the event.
- c. The Permittee shall take all available and reasonable actions, including more frequent and enhanced monitoring to:
- i. Determine the effect and extent of each incident;
  - ii. Minimize any potential impact to the waters of the State arising from each incident;
  - iii. Minimize the effect of each incident upon domestic animals and all wildlife; and
  - iv. Minimize the endangerment of the public health and safety which arises from each incident.
- d. If required by the Division, the Permittee shall submit, as soon as reasonably practicable, a final written report summarizing any related actions, assessments, or evaluations not included in the report required in Part II.B.4.b., and including any other information necessary to determine and minimize the potential for degradation of waters of the State and the impact to human health and the environment. Submittal of the final report does not relieve the Permittee from any additional actions, assessments, or evaluations that may be required by the Division.

#### C. Administrative Requirements

1. A valid Permit must be maintained until permanent closure and post closure monitoring are complete. Therefore, unless permanent closure and post closure monitoring have been completed, the Permittee shall apply for Permit renewal not later than 120 days before the Permit expires.
2. Except as required by NAC 445A.419 for a Permit transfer, the Permittee shall submit current Permit contact information described in paragraphs (a) through (c) of subsection 2 of NAC 445A.394 within 30 days after any change in previously submitted information.
3. All reports and other information requested by the Administrator shall be signed and certified as required by NAC 445A.231.
4. When ordered consistent with Nevada Statutes, the Permittee shall furnish any relevant information in order to determine whether cause exists for modifying,

revoking and reissuing, or permanently revoking this Permit, or to determine compliance with this Permit.

5. The Permittee shall maintain a copy of, and all modifications to, the current Permit at the permitted facilities at all times.
6. The Permittee is required to retain during operation, closure and post-closure monitoring, all records of monitoring activities and analytical results, including all original strip chart or data logger recordings for continuous monitoring instrumentation, and all calibration and maintenance records. This period of retention must be extended during the course of any unresolved litigation.
7. The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not thereby be affected.
8. The Permittee is authorized to manage fluids and solid wastes in accordance with the conditions of this Permit. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Water Pollution Control Statutes for releases or discharges from facilities or units not regulated by this Permit. NRS 445A.675 provides that any person who violates a Permit condition is subject to administrative or judicial action provided in NRS 445A.690 through 445A.705.

#### D. Division Authority

The Permittee shall allow authorized representatives of the Division, at reasonable times, and upon the presentation of credentials to:

1. Enter the premises of the Permittee where a regulated activity is conducted or where records are kept per the conditions of this Permit;
2. Have access to and copy any record that must be kept per the conditions of this Permit;
3. Inspect and photograph any facilities, equipment (including monitoring and control equipment), practices, or operations regulated by this Permit; and
4. Sample or monitor for any substance or parameter at any location for the purposes of assuring Permit and regulatory compliance.

#### E. Sampling and Analysis Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. For each measurement or sample taken pursuant to the conditions of this Permit, the Permittee shall record the following information:

- a. The exact place, date, and time of the inspection, observation, measurement, or sampling; and
  - b. The person(s) who inspected, observed, measured, or sampled.
3. Samples must be taken, preserved, and labeled according to Division approved methods.
  4. Standard environmental monitoring chain of custody procedures must be followed.
  5. Samples shall be analyzed by a laboratory certified or approved by the State of Nevada, as applicable for the method(s) being performed. The Permittee must identify in all required reports the certified and approved laboratories used to perform the analyses, laboratory reference numbers, and sample dates, and for the electronic version of each report only, include all associated laboratory analytical reports, including test results, test methods, chain-of-custody forms, and quality assurance/quality control documentation.
  6. The accuracy of analytical results, unless otherwise specified, shall be expressed in mg/L and be reliable to at least two significant digits. The analytical methods used must have a practical quantitation limit (PQL) equal to or less than one-half the reference value for Profile I parameters. Laboratories shall report the lowest reasonable PQL based on in-house method detection limit studies. Samples for Profile I parameters shall be filtered and analyzed for the dissolved fraction, unless otherwise required by the Division. Unless otherwise approved by the Division, analytical results that are less than the PQL shall be reported quantitatively by listing the PQL value preceded by the "<" symbol.

F. Permit Modification Requirements

1. Any material modification, as defined at NAC 445A.365, plan to construct a new process component, or proposed change to Permit requirements must be reported to the Division by submittal of an application for a Permit modification, or if such changes are in conformance with the existing Permit, by submittal of a written notice of the changes. The Permit modification application must comply with NAC 445A.391 through 445A.399, 445A.410, 445A.412, 445A.414, 445A.415, 445A.416, 445A.417, 445A.440, and 445A.442, as applicable. The construction or modification shall not commence, nor shall a change to the Permit be effective, until written Division approval is obtained.
2. Prior to the commencement of mining activities at any site within the State which is owned or operated by the Permittee but not identified and characterized in a previously submitted application or report, the Permittee shall submit to the Division a report which identifies the locations of the proposed mine areas and waste disposal sites, and characterizes the potential of mined materials and areas to release pollutants. Prior to development of these areas the Division shall determine if any of these new sources will be classified as

process components and require engineered containment as well as Permit modification.

3. The Permittee shall notify the Division in writing at least 30 days before the introduction of process solution into a new process component or into an existing process component that has been materially modified, or of the intent to commence active operation of that process component. Before introducing process solution or commencing active operation, the Permittee shall obtain written authorization from the Division.
4. The Permittee must obtain a written determination from the Administrator of any planned process component construction or material modification, or any proposed change to Permit requirements, as to whether it is considered a Permit modification, and if so, what type.
5. The Permittee must give advance notice to the Administrator of any planned changes or activities which are not material modifications in the permitted facility that may result in noncompliance with Permit requirements.

Prepared by: Natasha Zittel

Date: 27 June 2018

Revision 00: 2018 Renewal, effective Day Month 2018

## FACT SHEET

(Pursuant to Nevada Administrative Code (NAC) 445A.401)

Permittee Name: **Red Widow Mining Company, Inc.**

Project Name: **May Turquoise Mine**

Permit Number: **NEV2008102**

Review Type/Year/Revision: **Renewal 2018, Fact Sheet Revision 00**

### **A. Location and General Description**

**Location:** The **May Turquoise Mine** is located on the west side of Crescent Valley, along the eastern pediment of the Shoshone Range, in the Bullion Mining District of east central Lander County, Nevada, within a portion of the southwest  $\frac{1}{4}$  of Section 28, Township 29 North, Range 47 East, Mount Diablo Baseline and Meridian, approximately 6 miles southwest of the town of Crescent Valley. The Project may be accessed by traveling approximately 40 miles west from Elko, on Interstate Highway 80, to the Beowawe interchange exit #261; then southwest on paved Nevada State Route 306 approximately 26 miles, through the communities of Beowawe and Crescent Valley, to Indian Creek; continuing west approximately 2 miles on a dirt road along Indian Creek; and then north about 1 mile on a dirt road to the Project site.

**General Description:** The Project is permitted as a physical separation facility in accordance with Nevada Administrative Code 445A.414 to extract turquoise-bearing material from an existing small open pit. Production will be weather dependent and will total less than 10,000 tons of turquoise ore per year. Portable equipment will be used for beneficiation. No chemicals are approved for use in the process and make-up water will be transported to the site and recovered from the process in clay-lined ponds prior to recirculation through the process circuit. The proposed Project will create approximately 1.5 acres of new surface disturbance over an estimated mine life of 10 years.

### **B. Synopsis**

The entire project is within the May claim on public land administered by the Bureau of Land Management, Battle Mountain District Office. The May Turquoise Mine was originally operated in the 1960's by Elmer Shroeder. The new mining operation proposed, by Red Widow Mining Company, Inc. (the Permittee), will consist of expanding the existing open pit using 30-pound and 90-pound jackhammers and possibly a bulldozer. No blasting of pit material is anticipated. Ore and waste rock will be removed from the pit floor with a backhoe. Over the life of the proposed operation, the pit footprint will be expanded, as a lay-back into the hillside, from approximately 0.3 acres to about 0.9 acres. The May Turquoise Mine

will be operated seasonally, at a rate of less than 10,000 tons of turquoise ore per year.

Waste rock will be placed adjacent to an existing waste rock storage facility (WRSF) located immediately southeast of the open pit. During the proposed project life, the footprint of the existing WRSF is anticipated to increase from approximately 0.4 acres to approximately 0.9 acres. The maximum height of the WRSF is anticipated to reach 30 feet. The WRSF slopes will be re-graded to 3 horizontal to 1 vertical at closure. Meteoric Water Mobility Procedure, Profile I analytical results for an ore sample indicate a slight exceedance of Profile I reference values for aluminum and arsenic. Data from adjacent sites indicate these constituents occur at naturally elevated concentrations in regional background samples. Based on the analytical test results provided and the depth to groundwater in the area (see below), the ore and waste are not anticipated to pose a potential to degrade waters of the State.

Ore will be fed with the backhoe to a portable trommel located within the open pit. The trommel has a design capacity of 15 cubic yards per hour. Make-up water to rinse the ore is transported to the site and stored in a 5,000-gallon water truck, and is fed to the trommel at a rate of approximately 100 gallons per minute (gpm). No chemicals are approved for use in the process.

The coarse ore fraction will be carried from the trommel on a 40-foot long conveyor to the hand-sorting area where the turquoise will be collected. Process water and fine reject material will discharge from the trommel through a chute to a Settling Pond where the suspended solids can settle out.

The approved Settling Pond measures approximately 15 feet wide, 10 feet long, and 5 feet deep. The native soils exhibit percolation rates ranging from  $7 \times 10^{-4}$  centimeter per second (cm/sec) to  $1.6 \times 10^{-8}$  cm/sec. Confirmation of the permeability during construction is not required by the Division. Additionally, the pond will include a 3- to 4-inch thick layer of bentonite clay as an amendment to minimize fluid loss from the pond for recirculation in the process.

From the Settling Pond, the clarified process water will decant to the Recirculation Pond. The proposed Recirculation Pond measures approximately 15 feet wide, 10 feet long, and 5 feet deep. Like the Settling Pond, the Recirculation Pond will include a 3- to 4-inch thick layer of bentonite clay to minimize fluid loss. Make-up water can be added at the pond prior to pumping, at a rate of up to 100 gpm, back into the process circuit at the trommel.

Coarse reject material from the turquoise hand-sorting operation and fines material removed from the Settling Pond will be placed on the WRSF with the backhoe. No backfilling of the open pit is anticipated, although historic underground workings that may be encountered during open pit mining will be backfilled at closure.

Operations will generally cease during winter due to lack of access. During any temporary closure period, the ponds will be emptied as practical and the trommel and other portable equipment will be removed from the site. The access road will be bermed to prevent public access.

A stormwater diversion will be constructed upgradient of the open pit to divert any stormwater surface flow away from the approved facility. Other Best Management Practices will be incorporated as necessary to protect the integrity of the facility and to prevent degradation of waters of the state.

**C. Receiving Water Characteristics**

There are no surface waters within one-half mile downgradient of the project area. The nearest surface water is Indian Creek, which is located 1 mile to the south and exhibits ephemeral flow.

The closest downgradient groundwater well is located 1.5 miles to the east and the next closest is approximately 2 miles to the southeast. Static water levels in the wells have been measured at 162 and 176 feet below ground surface (bgs), respectively. Based on the available information, groundwater in the Project area is estimated to be at a depth of at least 150 to 200 feet bgs.

Until a nearer water source can be obtained, make-up water will be transported from the Hot Spring Fish Pond located in Crescent Valley. Analysis of the water for the NDEP Profile I constituents reports the water has a slightly alkaline pH and elevated fluoride. Regional water quality data in Division files indicates fluoride at elevated levels is a natural occurrence in local groundwater.

**D. Procedures for Public Comment**

The Notice of the Division's intent to issue a Permit authorizing the facility to construct, operate, and close, subject to the conditions within the Permit, is being sent to the **Battle Mountain Bugle** for publication. The Notice is being mailed to interested persons on the Bureau of Mining Regulation and Reclamation mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date of public notice. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must

indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.403 through NAC 445A.406.

**E. Proposed Determination**

The Division has made the tentative determination to issue the renewed Permit.

**F. Proposed Limitations, Schedule of Compliance, Monitoring, Special Conditions**

See Section I of the Permit.

**G. Rationale for Permit Requirements**

The facility is located in an area where annual evaporation is greater than annual precipitation. Therefore, it must operate under a standard of performance which authorizes no discharge(s) except for those accumulations resulting from a storm event beyond that required by design for containment.

The primary method for identification of escaping process solution will be placed on required routine monitoring of the process water. Specific monitoring requirements can be found in the Water Pollution Control Permit.

**H. Federal Migratory Bird Treaty Act**

Under the Federal Migratory Bird Treaty Act, 16 U.S. Code 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 Code of Federal Regulations 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service (the Service) is authorized to enforce the prevention of migratory bird mortalities at ponds and tailings impoundments. Compliance with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

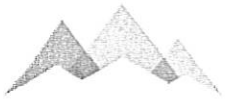
Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g., by covering with netting), and 2) chemical detoxification. These

approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

Prepared by: Natasha Zittel

Date: 27 June 2018

Revision 00: 2018 Renewal; Effective Day Month 2018.



NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**

STATE OF NEVADA  
Department of Conservation & Natural Resources  
Brian Sandoval, Governor  
Bradley Crowell, Director  
Greg Lovato, Administrator

30 July 2018

**NOTICE OF DECISION**

**WATER POLLUTION CONTROL PERMIT  
NUMBER NEV0087061**

**Newmont USA Limited  
Fortitude/Reona (Phoenix) Project**

The Administrator of the Nevada Division of Environmental Protection (the Division) has decided to issue the Major Modification of Water Pollution Control Permit NEV0087061 (Permit) to Newmont USA Limited (the Permittee). This Permit authorizes the construction, operation, and closure of approved mining facilities in Lander County, Nevada. This Major Modification approves the mining of Phase IV of the Greater Phoenix Project and the implementation of a previously approved closure strategy requiring the backfilling of the expanded pits to preclude formation of a pit lake. The revised Permit includes Schedule of Compliance items requiring the Permittee to collect and submit to the Division additional information in support of the future Phase V and Life-of-Mine expansions prior to the next permitting renewal (Permit expires 1 February 2021). This permit decision does not provide approval for Phase V and Life-of-Mine phases and does not deny approval for those phases. After Schedule of Compliance items are provided, including those related specifically to Phase V and Life-of-Mine phases, the Division will schedule a public comment period at the time of renewal for all facilities, including Phase V and Life-of-Mine phases. After that public comment period, NDEP will make a decision as part of the renewal regarding approval of Phase V and Life-of-Mine phases.

The Division has been provided with sufficient information for Phase IV of the Greater Phoenix Pit expansion, in accordance with Nevada Administrative Code (NAC) 445A.350 through 445A.447, to assure that the waters of the State will not be degraded by this operation, and that public safety and health will be protected.

The Permit will become effective 14 August 2018. The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to Nevada Revised Statute (NRS) 445A.605 and NAC 445A.407. All requests for appeals must be filed by 5:00 PM, 9 August 2018, on Form 3, with the State Environmental Commission, 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701-5249. For more information, contact Natasha Zittel at (775) 687-9413 or Rob Kuczynski, P.E. at (775) 687-9441 or visit the Division website at <https://ndep.nv.gov/posts/category/land>.

Written comments were received during the public comment period from Mr. John Hadder, Director, Great Basin Resource Watch (GBRW), Reno, Nevada (e-mail received 25 May 2018). The text of all comments, in some cases excerpted, and the Division responses (in *italics*) are included below as part of this Notice of Decision.

**GBRW, Written Comment #1:**

Great Basin Resource Watch appreciates the assistance of NDEP staff in our acquiring data on this project and for arranging a face-to-face meeting at the NDEP offices with your staff and Newmont to discuss concerns and address technical questions.

We also acknowledge the assistance of Newmont staff and contractors to provide information to GBRW and take time to discuss various aspects of the Phoenix mine, associated technical analysis, and proposed change in the long-term treatment approach.

**Division Response 1:**

*Comment noted.*

**GBRW, Written Comment #2:**

The Phoenix mine is arguably the most acid generating mine site in Nevada with ~80% waste rock being considered acid generating. Currently, Newmont is proposing to treat mine acidified toxic drainage and mine impacted groundwater for potentially hundreds of years. To our knowledge there is no end date for the treatment of the toxic water. The fact sheet ... does not mention there is no end date for treatment. ... [T]here is no discussion of the long-term treatment expectation ... The fact sheet is not accurately representing the situation at the site. The fact sheet needs to contain more information ... on how contaminated the water is and how much will need to be treated on an annual basis. ... [I]t is vital that the fact sheet provide more detail on how the treatment is to proceed. The fact sheet should also summarize the existing plan for long-term treatment ...

**Division Response 2:**

*The Fact Sheet has been updated to include additional details regarding the tentative closure plans for the mine site (page 5, 6, 36, and 38) and additional details on the volume and quality of water expected to be collected by the pump back system and seepage collection systems (pages 6, 45, and 46). If more information is requested on the seepage water volume and quality the monitoring reports are available for public review per NRS 445A.665.*

**GBRW, Written Comment #3:**

The treatment in perpetuity aspect...creates a lack of clarity on the "Permanent Closure" of the mine. ... [Per NAC 445A.446] "Permanent closure is complete when the requirements contained in NAC 445A.429, 445A.430 and 445A.431 have been achieved." NAC 445A.429 requires that, "The holder of the permit must institute appropriate procedures to ensure that all mined areas do not release contaminants that have the potential to degrade the waters of the State." Under both the existing plan and the proposed [plan of operations] there will be "mined areas" that will result in degrading the waters of the State unless actively treated. GBRW seriously questions whether Newmont can "ensure" that there will be no release of contaminants when there is no end-date for active treatment. There is no example of sustained treatment for hundreds of years, and GBRW assumes (given the likely time scale for active treatment) that significant interruptions and failure of the active treatment system will occur and thus degrade the waters of the State. In our view this mine falls outside of the ability of the state of Nevada to regulate and thus cannot be properly permitted.

... GBRW has asked that analysis be done pertaining to the affect [sic] on the regional environment and communities assuming treatment interruption and failure occur in the future after 100 years, 200 years, and so on. If interruption/failure occurs will the effect on the environment and communities be more severe under the current plan of operations or under the major modification? Newmont uses proprietary software tailored for the Phoenix site, so the public does not have the ability to run that kind of analysis, and Newmont seems unwilling to perform such an analysis. Without this analysis GBRW will not support permit renewal.

**Division Response 3:**

*Based on the data available at this time, the need for perpetual treatment will be required at this mine site, even if this major modification is not approved. At this time the Division is approving only the initial phase of the Greater Phoenix Pit expansion (Phase IV of the Phoenix Mine). For the initial phase of mining, Phase IV, the approved tentative closure plan is to backfill to 40 feet above the groundwater table with lime-amended backfill. This closure methodology is unchanged from the currently approved tentative closure plan. The Division is focused on evaluating the potential of the proposed Phase V and the life-of-mine tentative closure plans and their adequacy to protect the waters of the State, while separately ensuring that sufficient reclamation bonding is posted to implement the reclamation and closure plan approved for Phase IV.*

**GBRW, Written Comment #4:**

NDEP must compel Newmont to aggressively pursue detailed analysis of approaches to close the mine site without the need for perpetual treatment... It is important for the public to be informed about this option (in the NDEP fact sheet as well) and decide for themselves if perpetual care is acceptable.

**Division Response 4:**

*The Permit requires additional detailed analysis of the Phase V and life-of-mine proposed closure methods before the tentative closure plans can be considered for approval; however, the Division is unaware of any feasible methods to close the mine site without perpetual treatment. The Fact Sheet has been updated to reflect more information on the tentative closure plan (page 5, 6, 36, and 38).*

**GBRW, Written Comment #5:**

GBRW would like a justification beyond “Due to the complexity of the Phoenix Project” ... why NDEP will allow this SOC [Subsection 4] instead of requiring these items before approving the major modification. At this time GBRW does not support the major modification of water pollution control permit containing the schedule of compliance items in subsection 4.

**Division Response 5:**

*SOC item number 4 ensures that the Permittee will update the models with the next permitting renewal as a continuing investigation of the proposed tentative closure strategy for Phase V and life-of-mine. The Major Modification approves of the mining of Phase IV only and a closure strategy which has been previously approved of backfilling the expanded pits to preclude formation of a pit lake. The SOC item language has been updated to read: “Within 120 days prior to the 1 February 2021 expiration date of this Permit (by 1 October 2020), the Permittee shall submit revised predictive models to assess: ...”*

**GBRW, Written Comment #6:**

GBRW recommends that NDEP require Newmont to complete the data collection and analysis in subsection 3 prior to approving the permit.

**Division Response 6:**

*As noted above, at this time the Division is approving only Phase IV and is requiring the additional data collection and analysis as part of the review process for Phase V and life-of-mine.*

**GBRW, Written Comment #7:**

Newmont appears to be focused on the biphasic treatment and the unproven backend use. ... [The] project relies on “Carbonate Rock Drainage Blankets” (Crdbbs) to neutralize acidity and provide some attenuation ... of metals and other solutes in the solutions percolating through waste rock. ... [S]ulfate concentration in seepage ... exceeds the solubility of gypsum. ... [W]hen the Crdbbs underlying waste rock...receive waste rock

seepage ... the carbonate will ... be coated with ... gypsum ... which will reduce and eventually eliminate neutralization of acid and attenuation of metals.... [T]he design and cost of the water system proposed for ... treatment of acidic seepage ... should assume ... carbonate rock drainage blankets do not effectively reduce acid or metal concentrations in seepage.

**Division Response 7:**

*The Major Modification only authorizes mining through the Phase IV pit expansion and implementation of the previously approved pit-backfill closure strategy to preclude the formation of pit lake. The Division has not authorized any future pit expansions or tentative closure plans utilizing drainage blankets (or any other methodologies) beginning with Phase V through the life-of-mine plan, though during the permitting process it was determined that the carbonate drainage blanket would not provide long-term treatment benefits. Lime quantities were recalculated and increased for the tentative future closure plans. These future expansions and updated tentative closure plans will be reviewed and evaluated by the Division as they are received. The Permittee must demonstrate that the waters of the State are protected from degradation and adequate reclamation bonding has been posted to implement the reclamation and closure plans as modified and approved for future phases of pit expansion.*

**GBRW, Written Comment #8:**

The text of the Hydrochemical Characterization ... appears to be incorrect about presenting mass balance results. Appendix H of the Hydrochemical Characterization report includes graphs of predicted concentration versus time in waste rock and waste rock backfill, and tables listing predicted versus simulated hydraulic head in the study area. ... Appendix H does not present any figures or tables that list mass of anything in general ... no tables or figures indicating solute mass of pollutants mobilized by oxidation and water flow in relation to the total pollutant mass in the waste rock and pit walls that are the long-term sources of these constituents. ... [T]here needs to be a presentation showing the model mass balance ... over time, in comparison to the total amount of pollutants in each source.

The "chemical release functions" (CRFs) modeling approach ... appears to contain a calculation error. ... CRFs estimate solute concentration, in mg/L, versus pore volume, using humidity cell tests. ... [The] humidity cell test leaches a fixed mass of rock with a fixed volume of water over a set time interval in a laboratory setting. Solute concentrations in these laboratory tests reflect ... specific test conditions ... [can't] be applied directly to estimate solute concentration and associated leaching rates under field conditions.

The error in the solute release model [illustrated in Equation 5-2] ... calculates the solute release from rock by integrating the CRF [mg/L/Pore Volume] over the number of pore volumes of water, where pore volumes relate directly back to humidity cell tests. The assumption ... that during the humidity tests ... all of the sulfide is oxidized, which is not

the case. ... [D]eclining constituent concentrations is ... a short-term result that does not reflect field behavior. Under field conditions, the solute release from the rock is related to the duration over which it oxidizes, not the volume of water.

[W]hen a humidity cell is stopped and the rock temporarily stored, it continues to oxidize ... when the test starts ... the first effluent has a higher concentration than before it was stored. The same effect happens to waste rock under field condition—sulfide minerals oxidize continuously over time, but the solubilized pollutants mobilize only when they are flushed with water. Solute concentrations in effluent from waste rock [under acidic conditions] varies ... depending on the duration of oxidation between flushing events. [A] monotonic decrease in solute concentrations, as assumed in the chemical release function approach used (as appearing the Draft Environmental Impact Statement), is .. inaccurate. ... [R]elatively short-duration humidity cell tests is likely to oxidize only a small fraction of the total sulfide ... fitting a curve to leachate concentration without regard to the total leachable mass of each constituent ... underestimate ... actual leachable solute in the waste rock. ... [The] accounting for each pollutant, including total mass in the source material and cumulative mass leached out over time, would help clarify the model design and simplify the evaluation of the model reliability.

NDEP needs to review this analysis to ensure that indeed there is not an underestimate of the chemical releases. These estimates need to be truly conservative so that the level of treatment can be reasonable bracketed, and very importantly to accurately assess [sic] consequences of active treatment failure even if temporary.

#### **Division Response 8:**

*The Major Modification only authorizes mining through the Phase IV pit expansion and implementation of the previously approved pit-backfill closure strategy to preclude the formation of a pit lake. The Division has not authorized any future pit expansions or tentative closure plans utilizing drainage blankets (or any other methodologies) beginning with Phase V through the life-of-mine plan. These future expansions and updated tentative closure plans will be reviewed and evaluated by the Division as they are received. The Permittee must demonstrate that the waters of the State are protected from degradation and that adequate reclamation bonding has been posted by the Permittee to implement the revised reclamation and closure plans for future phases of pit expansion.*

*The Division agrees with Great Basin Resource Watch that mass balance is a key factor in simulating solute release from waste rock. However, the Division does not concur with several of the statements and assumptions described in the comment.*

*First, the Division does not concur with the assessment that sulfide oxidation and subsequent solute release are unrelated to the volume of water and that predictions cannot be made using the results of humidity cell tests. The Division agrees with GBRW that the release of many solutes is tied to oxidation of sulfides. However, GBRW asserts that the rate of sulfide oxidation is only controlled by the duration of oxidation and not the*

*volume of water flushed through the sample. This assertion is in contrast to recent research on humidity cell tests (Maest and Nordstrom, 2017). In their analysis of testing results from several projects, Maest and Nordstrom (2017) concluded that water-to-rock ratios impacted the overall solute leaching, which was presumably related to sulfide oxidation. Therefore, these results indicate that the volume of water leached through the rock does impact sulfide oxidation and solute release. In reference to the related concern of periods of unsaturated conditions and the results on solute release, this aspect will be evaluated using Schedule of Compliance item 4.c which requires advanced testing methods (beyond standard humidity cell tests) designed to mimic field conditions.*

*Second, the Division does not concur that the use of chemical release functions (CRFs) includes an assumption of complete oxidation of all sulfides in the testing materials. On the contrary, the major assumption inherent in the application of CRFs is that the volume of water leached through the humidity cell test samples can be related to the flux of water through the subsurface in the vicinity of the pits. In this instance the volume of water leached through the testing samples was measured and the flux through the subsurface was simulated using a groundwater flow model. Although this approach does contain uncertainty, the Division has determined that the approach does not result in a systematic underestimate of solute release.*

**GBRW, Written Comment #9:**

[T]he description of the WROC [(Waste Rock Oxidation Code)] Model Calibration (Geomega Section 5.1.3) appears to be a comparison rather than a calibration and is difficult to understand. ... [T]he description of the WROC model indicates that it considers chemical heat production, advection, diffusion, and convection of oxygen ... there is no discussion of how the model results compare to indicative parameters, such as pore-space oxygen concentration and temperature, measured in the existing waste rock facilities. ... [T]he discussion of "Model Calibration" on pages 5-31 and 5-32 [appears] to indicate ... how the model results compare to observed sulfate leaching from the North Fortitude waste rock facility, but the discussion does not lead to a conclusion. ... [U]sing seepage from an existing waste rock facility to calibrate an oxidation model of a waste-rock facility would involve adjust[ing] model parameters so that the model results matched observed sulfate concentrations and/or sulfate mass release rates.

Not all flow/mass reports to the North Fortitude waste rock seep (Figure 5-4b). Comparing the mass at the seep with the predicted total infiltration (the product of seep  $\text{SO}_4^{2-}$  and the total flow predicted from the 1-D unsaturated flow model) demonstrates that only ~10% of the modeled  $\text{SO}_4^{2-}$  mass reports to the seep (Figure 5-4b)." (Geomega, p. 31 & 32). Why did the model calibration calculate "the mass at the seep" as "the product of seep concentration and modeled flow"? The term "mass at the seep" apparently means the load rate of sulfate leaving the waste rock facility, but this is calculated here as the product of a measured seep concentration and the "modeled flow."

The meaning of “the predicted total infiltration” is unclear. The phrase seems to suggest a water flux, but it is defined as “the product of seep  $\text{SO}_4^{2-}$  and the total flow predicted from the 1-D unsaturated flow model.” It is unclear why the analysis is multiplying a concentration of sulfate (measured sulfate?) in the seep and the flow predicted by the unsaturated zone hydraulic model.

[T]here is no discussion of mass balance on sulfate production. ...[W]hat does the model predict for the rate of sulfate production from a single Kg of waste rock as it completely oxidizes under atmospheric conditions ...what fraction of the total mass of sulfide  $\text{S}^{2-}$  in the calibration waste-rock facility simulation is oxidized over the 500-year simulation period?

[T]he report concludes that “only ~10% of the modeled  $\text{SO}_4^{2-}$  mass reports to the seep.” It is not clear about how this conclusion is reached. The model appears to be over-estimating sulfate by a factor of 9 ...is this a reasonable estimate for uncertainty in model predictions? [I]s 90% of the net-infiltration to the existing waste rock facility recharging bedrock, and not appearing as seepage (a violation of Nevada law)? Or is there another explanation? This simply needs to be described using more clear language. ... Predictions of long-term water quality seeping from the Greater Phoenix Project waste rock provides the basis for assessing impacts on water resources and the associated cost estimates for funding long-term water treatment. ... [The] water-quality model report ... should describe most clearly how the model predictions compare to field scale measurements of solute leaching from existing waste rock facilities. Newmont ... never clarified this despite out [sic] request to address these issues in communication with Newmont in advance of the March 8 [2018] meeting.

#### **Division Response 9:**

*The Division concurs with much of the Great Basin Resource Watch assessment regarding incomplete explanation of the applicability of the WROC predictions to observations of the site. Much of the clarification to the WROC simulations was provided to the Division in subsequent correspondence related to Geomega (2015). As such, the Division has outlined where additional study is required and has outlined these requirements in Schedule of Compliance item 4. Because the approval of the Major Modification only allows mining of Phase IV of the Phoenix Mine, and the currently approved closure strategy of backfilling the pits will remain in effect, the updated geochemical studies will allow for additional analysis of the impacts of the full expansion. As mentioned above the additional information will be provided during the next renewal (1 February 2021) and the Division will evaluate the information provided for Phase V and provide a 30 day public comment period.*

#### **GBRW, Written Comment #10:**

Under the major modification the mine plan boundary is increased significantly. The need for an extension of the boundary in the northeastern part (see area circled in the figure to

the right) of the mine is unclear. There appears to be no expansion of facilities in this section. GBRW would like an explanation of the need to extend the boundary in this section.

**Division Response 10:**

*The mine plan boundary shown in the Figure is the plan of operation (POO) boundary, which was provided by the Permittee to the U.S. Bureau of Land Management as part of the National Environmental Policy Act (NEPA) review process. The Division has no regulatory involvement in the selection or review of the POO boundary and it is unrelated to the Water Pollution Control regulations and Permit.*

**GBRW, Written Comment #11:**

The factsheet [sic] contains significant engineering detail on some aspects of the Phoenix Mine, but misses the mark as a public information document. The draft permit lists all of the monitoring aspects, but there is no associated map for people to clearly understand where the monitoring is relative to the various facilities.

**Division Response 11:**

*Per NAC 445A.401(b), the Fact Sheet at a minimum must include facility location, proposed sources, a description of the facility and monitoring systems, identify probable receiving water and procedures for public comment. It is not intended to be an all-inclusive document or a reiteration of the application. Should the public require or request additional information the application and Permit are public record and are available for public access per NRS 445A.665. The Compliance Sampling Locations Map is located in Appendix D: Water Sampling and Monitoring Plan of the Major Modification Application.*

**GBRW, Written Comment #12:**

The factsheet [sic] needs to provide data on ... acidic drainage (volume and constituent concentrations) ... occurring so the public ... [is] aware of the extent of the problem at the site. ... [V]olume data was ... provided on the North Fortitude Waste Rock Seep. ... [T]erminology such as *low-quality* [italics and hyphen added] does not capture the extent of the toxic release; numerical data is needed, especially as compared to background water quality or standards of water quality.

**Division Response 12:**

*The low pH and high metal seepage from the WRF seeps are collected in dedicated seepage collection systems. The Fact Sheet has been updated to include additional details on the volume and quality of the seepage water (page 45 and 46). The WPCP requires quarterly monitoring of the seeps and the monitoring reports are available for public access per NRS 445A.665.*

**GBRW, Written Comment #13:**

Page 45 of the factsheet [sic] states, "The pit design and final reclamation of the remaining NF WRDF should eliminate the potential for future seepage in this area." The factsheet [sic] should clarify that the Greater Phoenix Pit will redirect the flow and not eliminate the toxic release.

**Division Response 13:**

*The Greater Phoenix Pit Expansion, life-of-mine pit, will mine through the NF WRDF (North Fortitude Waste Rock Disposal Facility) removing the waste rock and source of the seepage, effectively removing the seepage source. Although, with the approval of Phase IV the NF WRDF seepage collection system will continue to function as currently approved. Additional information has been provided in the Fact Sheet for clarification (page 46 and 47).*

**GBRW, Written Comment #14:**

[There is no] mention of the groundwater contamination plume ... from the historic gold tailings facility. This aspect requires its own section including the origin of the plume, extent of the contamination and the pumping mitigation process, and how the major modification will affect the plume and its clean-up. ... [T]here are a series of plume monitoring wells that will be removed as a result of the expanded tailings facility on the south end of the mine complex. ... NDEP needs to address this in the factsheet [sic] as well: clarify the existing monitoring, discuss how the contaminant concentrations have been changing in time, and how the plume monitoring will change as a result of the tailings expansion.

**Division Response 14:**

*The groundwater contamination plume from the historic gold tailings is not impacted with the Greater Phoenix Major Modification. The tailings expansion that was included in the NEPA process completed by U.S Bureau of Land Management is not part of this modification. If in the future the tailings expansion is submitted to the Division, it would be considered a major modification and a 30-day public comment period will be completed as part of the Division's review. Additional information has been provided in the Fact Sheet (page 49 and 50).*

**GBRW, Written Comment #15:**

The factsheet [sic] should also include a discussion of the pumpback system on the east side of the site that is also part of the tentative closure plan under the major modification. Water captured from the line of wells will also require treatment that needs to be acknowledged as part of the closure strategy. Including this aspect will clarify that not all of the contaminated groundwater will flow into the combined Greater Phoenix pit.

**Division Response 15:**

*The Fact Sheet has been updated within the Tentative Plan for Permanent Closure Section (page 5 and 6).*

**GBRW, Written Comment #16:**

Great Basin Resource Watch cannot at this time support the major modification proposed by Newmont on the Phoenix mine due to the lack of regulatory clarity for permitting the site, lack of complete analysis, and no analysis on the comparison of the current plan of operations versus the proposed if there is a failure of the treatment system.

**Division Response 16:**

*Comment noted.*

**References:**

*Geomega, 2015, Hydrogeochemical characterization of the Greater Phoenix Project, Technical report prepared by Geomega Inc. for Newmont Mining Corporation, 19 February 2015.*

*Maest, A. and Nordstrom, D.K., 2017, A geochemical examination of humidity cell tests, Applied Geochemistry, vol. 81, pp. 109-131, DOI: 10.1016/j.apgeochem.2017.03.016.*

## FACT SHEET

(Pursuant to Nevada Administrative Code [NAC] 445A.401)

Permittee Name: **Newmont USA Limited**

Project Name: **Fortitude/Reona (Phoenix) Project**

Permit Number: **NEV0087061**

Review Type/Year/Revision: **Renewal 2016, Fact Sheet Revision 01**

### **A. Location and General Description**

**Location:** The **Fortitude/Reona (Phoenix) Project** is located in Lander County on private land (approximately 5,027 acres) and public land (approximately 3,315 acres) administered by the U.S. Bureau of Land Management (BLM) Battle Mountain District-Mt. Lewis Field Office. The Project is located in the historic Battle Mountain Mining District, within all or portions of Sections 15, 16, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, and 36, Township 31 North (T31N), Range 43 East (R43E); and Sections 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, and 22, T30N, R43E, Mount Diablo Baseline and Meridian, approximately 13 miles south of the town of Battle Mountain, Nevada.

**Site Access:** From central Battle Mountain, proceed south approximately 12 miles on State Route (S.R.)-305 to Buffalo Valley Road. Turn west on Buffalo Valley Road and proceed to the mine site, a distance of approximately 6 miles.

**General Description:** The Fortitude/Reona (Phoenix) Project is authorized to process up to 20,000,000 tons of ore annually. The facilities at the Phoenix Project site are required to be designed, constructed, operated, and closed without any release or discharge from the fluid management system except for meteorological events which exceed the design storm event.

The Phoenix Project consists of the following:

1. Two open pit mines (Phoenix and Iron Canyon Pits) with an average mining rate of approximately 110,000 tons per day (tpd);
2. Five active waste rock disposal facilities (Natomas, Philadelphia Canyon, Box Canyon, Bonanza In-Pit and Fortitude In-Pit);
3. Five inactive and reclaimed waste rock disposal facilities (North Fortitude, Butte Canyon, East Iron Canyon, North Iron Canyon, and South Iron Canyon);
4. A multi-stage 48,000 tpd and 20,000,000 ton per year (tpy) gold, silver, and copper ore beneficiation facility comprised of the following:
  - a. A crushing and grinding circuit for size reduction.
  - b. A gravity separation facility and a dedicated cyanide leaching facility for gold and silver.

- c. A three-stage flotation circuit for concentrating copper, gold, and silver, followed by filtration for shipment and subsequent off-site processing.
  - d. A cyanide vat leaching circuit followed by carbon-in-pulp (CIP) circuit for beneficiating the remaining ore fraction and production of a precious metal doré through carbon stripping, electrowinning, and retorting that will be transported off site for further refining.
5. Run-of-mine (ROM) gold and silver heap leaching operation. Heap leach ore is delivered as ROM or crushed to the Reona Gold Heap Leach Pad (HLP);
  6. ROM copper heap leaching operation (Phoenix Copper Leach Project) consisting of two ROM copper HLPs (Phoenix and Reona) and a solvent extraction and electrowinning (SX-EW) facility;
  7. A synthetic-lined tailings storage facility (TSF) constructed over the existing, historic copper tailings facility;
  8. Lined process ponds; leak detection, collection and recovery systems; stormwater diversion structures, and groundwater monitoring systems;
  9. Ancillary infrastructure including, but not limited to maintenance shops and warehousing, administration buildings, bulk fuel and reagent storage, covered concentrate stockpile facility, training facility, wash bay, electrical substation, explosives storage, equipment ready lines, potable water and septic systems; and
  10. An on-site Petroleum-Contaminated Soil (PCS) management facility, approved by the Nevada Division of Environmental Protection—Bureau of Mining Regulation and Reclamation (the Division) in August 2011.

## B. Synopsis

**Background/History:** During the early 1860's, prospectors searching for silver discovered several small porphyry and vein-type copper deposits in Copper, Cottonwood and Galena Canyons and the Copper Basin areas of northwest Lander County. The areas were incorporated as the Battle Mountain Mining District in 1866, and within two years, the district listed over 30 mines, two smelters and a mill facility to recover copper and other base metals and minor amounts of silver and gold.

In 1909, several large placer deposits (referred to as the "Dahl Placers" after James Dahl) were discovered at the mouth of Copper Canyon, near the historic Natomas Camp site. The discovery of the placer gold deposit began a shift from labor-intensive underground copper mining to placer gold mining. Recognizing this, in 1916 the newly formed Copper Canyon Mining Company began acquiring base and precious metal claims in the Copper Canyon and Copper Basin areas and operated several small placer mines in both areas until 1955. The company also operated a

small mill to recover copper, gold, and silver at Copper Canyon from 1941 until the company folded in 1957.

Between 1949 and 1955, the Copper Canyon area was also the site of a land dredging operation. The Natomas Gold Dredging Company disassembled and moved their large dredge, the "Natomas", from Manhattan in Nye County, Nevada, to work the historic Dahl Placers. Although operation of the dredge was short lived, it did manage to show profitability for several years.

In 1967, Duval Corporation (Duval) acquired claims at Copper Basin and Copper Canyon from American Smelting and Refining Company (ASARCO). Duval implemented a modernization program to increase copper and byproduct gold recovery from the combined milling and leaching operations at the Copper Canyon Mill. Due to falling copper prices, the mill was converted from copper concentrate production to a gold cyanide leaching, CIP adsorption facility in 1978, and continued operation into the early 1990's by Battle Mountain Gold Company (BMGC) when it was replaced by the heap leaching of low-grade disseminated gold ores.

Water Pollution Control Permit (WPCP) NEV0087061 (Permit) was first issued in September 1992 in conjunction with a Schedule of Compliance (SOC) item to address reclamation and closure of the Duval pre-regulation Copper Basin mining operations and authorize mining of the Fortitude Pit gold ore and operation of the Fortitude Mill by BMGC in August of 1985.

The Permit authorized mining of the Fortitude Pit and beneficiation in the Fortitude Mill. The pit ceased production in early 1993 and the mill ceased operations in March 1993. In October 1993, the Permit was modified as the Reona Project to allow expanded open pit mining and gold-cyanide heap leaching operations. The Reona Gold HLP received lower grade ore from the South Canyon, Bonanza, and Sunshine open pits.

A Major Modification of the Permit, referred to in previous submittals as the "Phoenix Expansion" or "Phoenix Project", was approved by the Division in January 2001. This Major Modification authorized expansion of the existing operations in the Copper Canyon mining area, the expansion of existing open pits and waste rock dumps, an expansion of the Reona Gold heap leach facility, and construction of various ancillary support facilities. Also included was the development of a new open pit (Reona) and construction of a mill, gold recovery facility and tailings impoundment.

Newmont USA Limited dba Newmont Mining Corporation (Newmont) acquired BMGC, as a wholly owned subsidiary, effective 1 January 2003 and is the current Permittee.

**Physiography, Geology, and Mineralization:** The Phoenix Project site lies within the Basin and Range physiographic province and is composed of two relatively flat valleys and steep-sided ranges with approximately 3,700 feet of relief. Elevations range from approximately 4,520 feet along the Reese River to 8,232 feet at Antler Peak. The mountains serve as hydrologic divides that separate drainage basins. The mountain flanks are deeply incised in places, and the resulting canyons collect and discharge runoff to creeks and alluvial fans. The valley floors grade toward the Reese River and Buffalo Valley Playa.

Quaternary alluvial deposits cover most of the valley floors and lower drainage basins. In general, the alluvium fan away from the mountain fronts, with the coarsest material having accumulated in upper alluvial fan deposits and the finest material being deposited in the center of the valleys away from the mountain front. The valley fill in many basin and range valleys in Nevada can be more than 3,000 ft thick.

The Quaternary volcanic rocks within the Phoenix Project site principally consist of basalt flows southeast of Copper Canyon referred to as the Caetano Tuff. The Caetano Tuff has a maximum thickness of approximately 300 feet and caps ridges near Rocky canyon and Elephant's Head, which lies to the northeast of the Phoenix Project site.

There are numerous small igneous intrusions of Mesozoic- and Tertiary-age exposed in the Battle Mountain Range. The most hydrologically significant intrusive is the Tertiary Copper Canyon granodiorite, which roughly divides the Phoenix/Fortitude pit from the down-gradient Reona and Bonanza pits.

The Golconda allochthon (or Havallah sequence) is comprised of the Pumpernickel and Havallah Formations. The Havallah sequence is a tectonically interleaved assemblage of chert, argillite, shale, siltstone, sandstone, conglomerate, limestone, and greenstone. The Pumpernickel Formation consists predominantly of argillite and chert that forms ridges and ledges where exposed.

The Havallah Formation consists of a lower basalt and gabbro unit, as well as chert, siltstone, sandstone, and limestone units. The Havallah sequence rocks cover most of the surface of the Battle Mountain Range west of the Phoenix Project site.

The Antler Sequence is an autochthonous, overlap sequence that lies unconformably on the Roberts Mountain allochthon within the Phoenix Project site. It is made up of three formations from oldest to youngest: the Battle Formation, the Antler Peak Limestone, and the Edna Formation. These formations were deposited in a shallow marine environment. The Battle Formation consists of thick-bedded conglomerate, sandstone, shale, and limestone. The overlying Antler Peak Limestone is a limestone that is locally shaley, sandy, and pebbly. The Edna Mountain Formation is mostly sandstone and chert pebble conglomerate, with cherty limestone.

The Harmony Formation is the oldest rock exposed within the Phoenix Project site. Much of the exposed rock of the Battle Mountain Range east of copper canyon is comprised of the Harmony Formation. The formation is mainly medium- to coarse-grained sandstone with lesser shale cemented by calcite approximately 3,000 feet thick.

Base and precious metal mineralization occurs as disseminated and massive sulfide replacements of calcium-silicate rock units. Mineralization also occurs as sulfide veins and fissure fillings within and outside areas of calcium-silicate alteration.

**Mining:** The Phoenix Project currently involves the mining of the Phoenix, and Iron Canyon open pits..

The Phoenix open pit is a lateral and vertical expansion of the existing Fortitude, Midas, Reona, Minnie, and South Canyon/Bonanza pits, which have already penetrated groundwater. Once mining is completed, dewatering operations will cease and groundwater will rebound to pre-mining static elevations.

Pursuant to WPCP NEV0087061, Part I.N.1, the Permittee is required to submit to the Division for review and approval, an updated groundwater flow model, pit lake study, and ecological risk assessment with each Permit renewal and with any application to modify the Permit that could affect the pit lake predictive model. The study and assessment shall address, at a minimum, the requirements of NAC 445A.429, and shall include all available data, alternative pit lake or in-pit backfill scenarios, and mitigations to reduce ecological risk, as applicable.

**Greater Phoenix Project Major Modification:** The Greater Phoenix Project (GPP), permitted in a Major Modification, is an extension of the mine life from 2040 to 2063; it consists of an expansion of the Phoenix Pit area through consolidation of five existing pits and an increase in pit depth by 380 feet. The GPP is proposed in three phases: Phase IV, Phase V, and life-of-mine. Phase IV of the GPP (approved by the Division in July 2018) will mine the currently approved pits in addition to beginning to strip the North Optional Use Area combining the Fortitude, Reona, and North Bonanza pits. Phase V and life-of-mine phases of the GPP require more information as indicated within the SOC items in Part I.B of the Permit before approval by the Division.

The GPP also proposes a modification of the mine closure approach, including the management of pit water through treatment to meet applicable water quality standards and subsequently put to a beneficial use of agriculture. Please see sections **GPP Tentative Plan for Permanent Closure** and **GPP Investigations** for more information.

**GPP Tentative Plan For Permanent Closure (TPPC):** The previous permitted TPPC for the Phoenix Mine pit complex was pit backfill to 40 feet above the rebounded groundwater table. As the groundwater rebounded the groundwater

would become a flow-through system, the outflow component would have required, after 200 years, a pump back and treatment system to remediate the contaminant plume in perpetuity.

For the initial phase of mining, Phase IV (2018-2022), the TPPC requires backfilling to 40 feet above the predicted recovered groundwater table with lime-amended backfill to preclude the formation of any pit lakes. The groundwater system will still become a flow-through system with time and a pump back and treatment system would still be necessary after 200 years and would operate in perpetuity. The estimated volume of water for treatment from the pump back system is 570 gpm to capture the sulfides and additional metals released by the backfill in the flow through system.

For Phase V and life-of-mine TPPC, the Division has determined more information would be required before the Division would accept these proposed conceptual closure plans. The information required is included as Schedule of Compliance items in Section I.B of the Permit. The following paragraphs discuss these proposed conceptual closure plans, both of these plans will not eliminate the flow through component of the groundwater system and a pump-back and treatment system would still be necessary in perpetuity.

The TPPC for the next phase of mining, Phase V (end 2056) will backfill (with lime-amended material) the south Bonanza Pit area 40 feet above the predicted groundwater table to preclude the formation of a pit lake, water from the Fortitude pit area will be pumped to North Bonanza Pit where it will be treated with lime and pumped to a pit crest tank for additional lime treatment. From the pit crest tank, the treated water will then flow via gravity through a buried double-contained pipeline (12-inch within a larger diameter HDPE pipe) to the Reona Pond. The Reona Pond will be relined and improved to serve as a settling pond for the treated water. The treated pit water will be then used for agriculture at Section 31 west of the mine site. The Pit Lake in north Bonanza would fluctuate seasonally to store water during winter for use during the growing season.

The life-of-mine (2063) TPPC incorporates a similar pit configuration as Phase V but water from Fortitude will gravity drain to north Bonanza through an inert septum drain and drainage blanket. The water will be treated in the pit lake and crest tank just as mentioned above and transported to the Reona Pond and Section 31 or the TSF for agricultural use.

**GPP Investigations:** Due to the complexity of the Phoenix Project, the Permittee will be completing additional investigations to aid in demonstrating the closure plan. These investigations are part of the Schedule of Compliance items in Section I.B of the Permit and consist of addition characterization, proof of concepts for the agriculture Tentative Plan for Permanent Closure (TPPC), updating the predictive models with the information collected.

In addition, the Permittee is required per Part I.N of the Permit to update the predictive models, waste rock management plan, and TPPCs with each Permit Renewal. These updates will incorporate the additional information learned during each Permit cycle as the Project progresses.

**Haulage and Transport:** ROM ore containing coarse gold and silver with low-grade copper values is loaded into haul trucks and transported to the ROM Stockpile Pad or directly to the Crushing Plant at the Phoenix Mill site for beneficiation. This is discussed in greater detail under the subsections **ROM Stockpile Pad** and **Mineral Processing and Beneficiation**. ROM leach-grade, low-sulfide gold-silver ore is transported directly to the Reona Gold HLP for cyanide leaching. This is discussed in greater detail under the subsection **Reona Gold HLP**.

ROM copper ore containing low-grade gold values are transported to the Phoenix Copper HLP for sulfuric acid leaching. ROM copper ore containing high-grade gold values is transported to the Reona Copper HLP for sulfuric acid leaching. This is discussed in greater detail under the subsection **Phoenix Copper Leach Project**.

**Ore and Waste Rock Identification, Classification, and Segregation:** Proper identification, classification, and segregation of rock types mined is critical to the economic and environmental success of the mine. As a general rule, any rock with sufficient minerals (gold, silver, or copper) that are in an economically extractable form is classified as ore; all other rock is identified as waste rock. Rock identified as ore is classified and segregated by its chemistry to promote recovery of metals. The variable chemistry of the ore types makes blending of ores from the different pits and benches a necessary tool in enhancing metal recoveries. Waste rock is further classified as either Potentially Acid Generating (PAG) or non-Potentially Acid Generating (non-PAG) according to its ability to affect the environment through the formation of Acid Rock Drainage (ARD).

Two factors are used to classify the ore and waste rock; how much sulfide is present and how much acid neutralizing or buffering capacity is available. Samples of ore and waste rock are collected for mineralogical, Meteoric Water Mobility Procedure (MWMP), Acid Base Accounting (ABA), Profile I constituents, and radionuclides.

Material with either a sulfide content greater than 0.1 percent or a Net Neutralizing Potential (NNP) less than or equal to zero, as identified using standard ABA methods, is classified as PAG. Rock with less than or equal to 0.1 percent sulfide and a NNP greater than zero are classified as non-PAG. Data utilized to classify rock at the Phoenix Project include geologic modeling, geologic formation mapping, blast hole mapping, laboratory analyses of blast hole cuttings and data from previous mining in the same location, but on other benches (i.e. higher elevations).

Ore and geologic block models are used to predict where various rock types are anticipated. These three-dimensional models are produced by extrapolating

geology and geochemistry between exploration drill holes, and conducting a statistical analysis of mineralization and associated controls. The models are updated and field corrected as mining progresses. Current data used to refine and improve the model enhances the ability to predict where differing rock types are to be expected.

Mineralization at the Phoenix Project site is affected, and often controlled, by structure and lithology. Structural zones and contrast between lithotypes often define preferential pathways or constraints to mineralizing fluids. As such, knowledge of the area lithology and structural fabric is often helpful in defining where ore and waste rock types may be found. Past geologic mapping and ongoing mapping projects help define and identify the structural and lithologic constraints of interest.

Blasting is required to break up and loosen the rock and make it possible for mining of ore and waste rock. Site geologists examine and classify (or map) the blast holes and their cuttings in order to further refine the knowledge base about rock types, rock structures, and mineralization present.

Samples of the blast-hole cuttings are collected and characterized. The analyses performed include those needed to define the boundaries between ore and waste, as well as those needed to identify and classify ore and waste rock types. Therefore, accurate and timely results from these chemical analyses are very important to the operations at Phoenix.

In addition to providing the chemical data needed to identify ore types, laboratory analyses, including LECO testing to identify the percent sulfide, total sulfur, carbonate, and total carbon present in the samples, are used to classify waste rock types. The LECO analyses are performed on 1 out of every 5 samples (Permit requirements stipulate that 1 in 10 blast holes must be analyzed using the LECO Method) and have a typical turnaround time of 3 to 7 days. The constituents determined through the LECO analysis are used to calculate the acid neutralizing/acid generating potential (ANP/AGP) of the material, and as such is the primary method for determining PAG versus non-PAG.

**Waste Rock Management:** Waste rock generated is characterized during mining and managed pursuant to the most recent version of the *Phoenix Mine Waste Rock Management Plan (Revised March 2018)*. The waste rock is either placed in existing and sequentially mined open pits, deposited over existing inactive waste rock and copper leach dumps, or placed within waste rock disposal facilities (WRDFs).

Current and proposed surface-deposition waste rock facilities include Philadelphia Canyon, Box Canyon, and the Natomas WRDFs. The proposed in-pit waste rock facilities are located in the old Bonanza and Fortitude pit areas. These two in-pit

waste rock facilities will be amended with lime to 40 feet above the predicted recovered water table.

Pursuant to the current Waste Rock Management Plan (WRMP), when a portion (i.e. lift) of a WRDF is completed the requirement for concurrent reclamation is triggered. Completed lifts are recontoured and capped with benign (net neutralizing) capping materials within twelve months of their completion.

A WRDF is considered complete when it has received all of the PAG waste rock it can contain and is ready for recontouring to final slope and capped. While the same criterion applies to individual lifts as well, safety factors must be considered. For instance, recontouring and capping of a single lift may only be accomplished if a subsequent lift is not under construction above (restricted access below active dump faces). As such, recontouring of said lift may not be accomplished until the lift above is complete, providing a catch bench for work to safely proceed on the first lift. After being contoured and capped the slopes are ready to be seeded, usually in the fall or early spring of each year to take advantage of the seasonal precipitation.

Caps for Phoenix Mine WRDFs are designed to minimize meteoric water infiltration and promote vegetative growth (and thus transpiration). All WRDFs at the Mine are designed to be capped and/or covered with at least 5 feet of benign non-PAG (net neutralizing) waste rock or alluvium.

Changes in the mine plan can affect the amount of capping material required and/or amount of available benign waste rock. As such, any changes will be provided within the annual WRMP review. The suitability of all growth media/capping materials will be demonstrated to the Division and BLM through studies and testing as required by the 2003 Phoenix Record of Decision and Plan of Operations approval. After the facility has been contoured to the final reclamation topography, cap materials (non-PAG waste rock or alluvium) are placed on the facility and spread to a minimum thickness of 5 feet. Cap monitoring devices and stormwater structures are constructed as soon as possible, but not later than the next construction season following contouring of capping materials. Also, depending on conditions and time of year, reseeding may occur before or after installation of stormwater structures and cap monitoring test stations.

The implementation of temporary and permanent stormwater best management practices (BMPs) is site specific at the Phoenix Project site. BMPs for final reclaimed WRDFs may include ditches, retention basins, sediment basins, and diversion channels, as well as the final configuration of the WRDF surface (swales, slope breaks, etc.). These BMPs are designed to prevent channel flow off the top of the WRDF, promote sheet flow across the WRDF to diversion channels connected to sediment basins to limit movement of sediment. The BMPs also include maintenance and inspections of the stormwater control facilities in order to ensure that stormwater off of, and around, the WRDFs is managed in accordance with applicable permit requirements.

Pursuant to WPCP NEV0087061, Part I.N.2, the Permittee is required to submit to the Division for review and approval an updated WRMP with each Permit renewal and with any application to modify the Permit that could affect the WRMP. A revised WRMP must also be approved prior to initiating mining or in-pit backfill activities not previously approved. The WRMP must include representative characterization data for all anticipated waste rock and overburden in accordance with the current version of the Division guidance document "*Waste Rock, Overburden, and Ore Evaluation*," in addition to a detailed description of how, when, and where the materials will be managed and monitored, and appropriate controls to eliminate any potential to degrade waters of the State, if applicable.

***ROM Stockpile Pad:*** Mill-grade ROM gold and silver ore is transported via haul truck to the ROM Stockpile Pad located north of the Phoenix Mill. The pad was constructed in three phases beginning in 2005 and occupies a footprint of approximately 672,500 square feet (approximately 15.5 acres) and is graded toward the double-lined ROM Stockpile Pad Collection Pond and Phase 3 Stormwater Runoff Pond. The pond designs are discussed in greater detail under the subsection ***ROM Stockpile Pad Collection Pond and Phase 3 Stormwater Runoff Pond.***

The ROM Stockpile Pad has a design height of 60 feet as measured from the pad surface and can accommodate approximately 1.5 million tons of ore. The pad is comprised of a 1-foot thick soil base and 3-foot high perimeter berm, constructed of Low Hydraulic Conductivity Soil Layer (LHCSL) material with a maximum permeability of  $1 \times 10^{-6}$  centimeters per second (cm/sec). The LHCSL is overlain with a minimum 3-foot layer of protective drainage material above the base and a minimum 6-foot layer of the same material over the perimeter berm.

Solution from the ROM Stockpile Pad drains to an outlet channel cut in the downgradient toe of the perimeter berm. The outlet channel is lined with 60-mil high-density polyethylene (HDPE) and anchored beneath the LHCSL base of the pad. The 3-foot thick protective drainage layer is extended over the HDPE liner and is further protected with a 2-foot layer of rip-rap over the length of the channel. The outlet channel reports to the ROM Stockpile Pad Collection Pond.

***ROM Stockpile Pad Collection Pond and Phase 3 Stormwater Runoff Pond:*** The ROM Stockpile Pad Collection Pond is double-lined with a leak detection sump. The liner system is comprised of 60-mil HDPE primary and secondary liners with a layer of geonet between the liners to serve as a leak collection and recovery system (LCRS). In the event leaks occur in the primary liner, the solution will report to the LCRS, which conveys solution to a gravel-filled sump that is evacuated through an 8-inch diameter HDPE inclined riser pipe. The pond capacity is 524,288 gallons at 2 feet of freeboard and 771,689 gallons at the pond crest. These capacities are adequate to contain the respective 25-year, 24-hour and 100-year, 24-hour storm event volumes (approximately 502,000 gallons).

The Phase 3 Stormwater Runoff Pond utilizes the same design criteria as the ROM Stockpile Pad Collection Pond. The runoff pond acts as an overflow pond and is connected by a 15-foot wide spillway with a base elevation equal to that of the 2-foot freeboard elevation of the ROM Stockpile Pad Collection Pond. The spillway is constructed with primary and secondary 60-mil HDPE liners with a layer of geonet between and is tied to the ROM Stockpile Pad Collection Pond liner and LCRS.

Leak detection for the Phase 3 Stormwater Runoff Pond reports to a dedicated subgrade LCRS sump filled with clean drainage rock encapsulated in 10-ounce per square yard (oz/sq yd) non-woven geotextile. The sump can be evacuated to appropriate containment via a 12-inch diameter HDPE inclined riser pipe booted through the primary HDPE liner at the pond crest. The pond measures approximately 130 feet on a side and 10 feet deep. With a design capacity of 507,000 gallons at 2 feet of freeboard and 718,000 gallons at the crest, the pond is designed to contain, without overtopping, the 100-year, 24-hour storm event flow (594,500 gallons) that would report to the Phase 3 pad expansion area and related components.

**Mineral Processing and Beneficiation:** The original Fortitude Mill, constructed by Duval, ceased operations in March 1993. All equipment was removed shortly thereafter and by August 2014, all of the Duval-era buildings and building foundations had been demolished, with the exception of the former Maintenance Shop, currently being used for exploration drill core storage.

The new Phoenix Mill is located northwest of the historic Reona Gold HLP. The mill was constructed in 2005 and later expanded in 2011, to beneficiate run-of-mine mill-grade ore from the Phoenix Mine. A new Metallurgical Laboratory Building (EDC approved by the Division in July 2013) provides analytical services for both the gold and copper process operations.

All mill components and associated tanks, conveyors, pipelines, sumps, reagent storage areas, and load-out areas are located within concrete secondary containment. The secondary containment is designed to contain 110-percent of the volume of the largest vessel within an individual containment area or to provide 110-percent containment of the discharge from the largest contributing vessel within multiple containment areas that are hydraulically linked. Tanks that are not elevated above the containment floor are equipped with leak detection pipes, which gravity-drain to the secondary containment. Refer to the subheadings **Crushing Circuit**, **Coarse Ore Stockpile Pad**, **Grinding Circuit**, **Gravity Separation Circuit**, and **Flotation Circuit** for additional design details.

**Crushing Circuit:** ROM ore from the ROM Stockpile Pad is fed via front-end-loader to one of two gyratory crushers for primary crushing. A Metso, 50-inch by 65-inch crusher is utilized for crushing softer, less abrasive ore and a Fuller 800-

hp, 60-inch by 89-inch crusher, is utilized for crushing harder and more abrasive ore.

In an effort to optimize mill operations, a Minor Modification (approved in September 2011) authorized the phased expansion of the Crushing Circuit (Phase 1 Expansion) and the Grinding Circuit (Phase 2 Expansion) to increase mill throughput to 76,800 tpd by decreasing particle feed size to the semi-autogenous grinding (SAG) mill from an 80-percent passing size ( $P_{80}$ ) of 6 inches to a  $P_{80}$  of 2 inches. This expansion involved the installation of a secondary crushing circuit to handle the entire amount of tonnage discharged from the primary crushers.

The secondary crushing circuit consists of a multi-slope, double deck screen to remove fines from the primary crusher product. The oversize material is crushed by two secondary cone crushers operating in parallel. The product from the secondary crushers is conveyed to the mill stockpile feed conveyor. An individual feeder belt from each primary crusher transfers nominal minus 6-inch crushed ore to the shared transfer conveyor, which delivers the ore to the stacker conveyor. Ore from the stacker conveyor is dumped onto the Coarse Ore Stockpile Pad, which has approximately 33,000 tons of live storage and 70,000 tons of dead storage capacity. The live storage can supply the mill for one day of operation and the dead storage can provide an additional two days of ore feed if the crusher is down.

**Coarse Ore Stockpile Pad:** The circular Coarse Ore Stockpile Pad is approximately 400 feet in diameter with a geosynthetic clay layer (GCL) base. The GCL is protected with a minimum 2-foot layer of overliner drainage material. The pad is constructed with a compacted-fill perimeter berm to prevent the escape of fluids from the pad and a ditch encircles the exterior of the bermed pad to divert stormwater flow away from the component.

Solution collected within the pad area drains to two outlet channels lined with 60-mil HDPE that is tied to the GCL. The outlet channels penetrate the pad berm and report to a single Outlet Sump (OS) that hydraulically links the pad to the secondary containment for the Phoenix Mill via the concrete slab beneath the ore conveyor. The sump is approximately 30 feet by 4 feet by 2 feet deep, with the long axis perpendicular to the pad gradient. The sump is comprised of a prepared subbase with a 6-inch layer of protective bedding sand, lined with 60-mil HDPE, keyed approximately 15 feet upgradient and beneath the GCL. Solution reporting to the OS is conveyed through the pad perimeter berm and conveyor corridor retaining wall via two 24-inch diameter HDPE outlet pipes.

The concrete conveyor corridor slab is a minimum 13 feet wide. A 2-foot high curb is constructed on both sides of the conveyor corridor slab from the retaining wall to a minimum of 20 feet beyond the outlet pipes discharge point. The remainder of the conveyor corridor slab is lined with a 1-foot curb to the point where it connects with the Phoenix Mill containment.

The corridor stem walls are designed to contain the flow and accommodate sediment buildup that may occur. The Permit requires routine removal of sediment from the corridor to ensure adequate capacity. In addition, the Phoenix Mill secondary containment is adequate to contain 166 percent of the 100-year, 24-hour storm event flow from the pad plus the volume of the largest vessel in the mill building.

**Grinding Circuit:** Ore is removed from the Coarse Ore Stockpile Pad by means of three belt feeders that convey material to the SAG Mill Feed Belt. The SAG Mill Feed Belt conveys new ore, crushed pebbles, and grinding balls to the 36-foot diameter by 18-foot long SAG mill where water is added for grinding. Overflow from the SAG mill is diverted to a cone crusher and reintroduced to the SAG Mill Feed Belt.

Underflow from the SAG mill drops into a sump and mixes with discharge from two ball mills. The sump slurry is pumped to a bank of cyclones. Overflow from the Grinding Circuit cyclones (P<sub>80</sub> approximately 150 mesh) reports to the Flotation Circuit and the underflow stream is divided and conveyed to each of the two 20-foot diameter by 33-foot long ball mills.

The existing grinding area was expanded as part of the Phase 2 Expansion. In an effort to meet the desired mill throughput rate of 76,800 tpd, the P<sub>80</sub> particle size of the grinding cyclone circuit overflow was increased from 150 to 100 mesh by reducing slurry velocity entering the cyclones.

**Gravity Separation Circuit:** A portion of the discharge from each ball mill is pumped to two gravity gold and silver recovery units and the concentrates from the gravity units are diverted to a cyanidation unit. The gravity unit tails are pumped to a contact flotation cell to recover finer-grained gold.

**Flotation Circuit:** The flotation circuit consists of a rougher flotation circuit followed by a three-stage cleaner flotation circuit and a cleaner-scavenger circuit. Slurry from the grinding cyclone overflow feeds a series of six rougher flotation cells. The rougher flotation concentrate and contact cell concentrate are combined and cleaned in two stages of gravity separation.

The Phase 2 Expansion included in the September 2011 Minor Modification, also expanded the rougher flotation area and tailings deslime area in an effort to double the current rougher flotation retention time, and increase capacity of the existing rougher tailings deslime cyclones. A new rougher flotation building was constructed parallel to the existing Phoenix Mill to accommodate two new banks of rougher flotation cells of six cells each, which effectively doubled the rougher circuit retention time from 15 to 30 minutes. Interconnecting pipelines connecting pumps and pump boxes between the existing Mill Building and the new Mill Building were also installed and the deslime cyclones were modified for coarser separation in order to increase throughput.

Concentrate from the two-stage gravity separation unit is directed to a primary cleaner column flotation cell. Rougher scavenger concentrate, along with concentrate from the 1<sup>st</sup> cleaner flotation circuit (four cells in series) and the cleaner scavenger flotation circuit (four cells in series), is sent to the flotation regrind mills. The regrind concentrate is then cleaned in three stages of flotation utilizing both mechanical and column flotation technology.

A magnetic separator removes magnetite/pyrrhotite concentrates from the cleaner flotation stream and gold and silver are recovered from the magnetic concentrate via a gravity recovery unit. Cleaner gravity tails and magnetic separation tails are pumped to the copper concentrate thickener to be dewatered. This is discussed in greater detail under the subsection ***Flotation Copper Concentrate Thickener Circuit.***

The final flotation concentrates are thickened, filtered, stockpiled, and eventually shipped to a smelter for metal recovery. Tails material from the rougher and cleaner scavenger circuits is pumped to a pair of deslime cyclones at the head of the CIP Leach Circuit. The cyclone underflow is pumped to the CIP Leach Circuit where it is combined with cleaner scavenger tails (CST). Most of the gold and silver in the slurry reports to the cyclone underflow while most of the copper reports to the cyclone overflow.

***Flotation Copper Concentrate Thickener Circuit:*** Cleaner gravity tails and magnetic separation tails are pumped to the copper concentrate thickener to be dewatered. The thickener overflow solution reports to the mill water tank for use as make-up water and the thickened copper concentrate is pumped to a copper concentrate storage tank equipped with an agitator.

Copper concentrate is pumped from the storage tank to a pressure filter and further dewatering to approximately 10-percent moisture content. The “dry” concentrate is conveyed to the dry flotation concentrate building (e.g. Concentrate Barn) with a 10,000 ton capacity. The copper concentrate is loaded into trucks, which are washed with an in-building truck wash, and then shipped off-site to a smelter.

In anticipation of the copper flotation circuit reaching its full design capacity, an EDC approved by the Division in May 2013 authorized construction of a second concentrate barn approximately 50 feet southwest of the existing concentrate barn. The facility was placed into operation at the approval of the as-built report by the Division in November 2013.

The new pre-fabricated building is similar in construction to the existing concentrate storage building. The building occupies a footprint of approximately 138 feet by 130 feet and is constructed on a reinforced concrete pad with reinforced concrete stem wall with a containment capacity of 6,313 gallons and a dry concentrate storage capacity of 7,600 tons. A reinforced concrete pad with a surrounding berm for containment is located on the southwest side of the new

Flotation Concentrate Storage Building. Containment volume is approximately 6,059 gallons and is designed to accommodate a maximum container/tank volume of 5,500 gallons, assuming 110-percent containment capacity. Typically, 55-gallon drums are stored in this area.

**CIP Leach Circuit:** Lime and cyanide solution are added at the head CIP tank to respectively control pH and enhance precious metal dissolution. The slimes material from the cyclone overflow is pumped to the fines thickener tank and dewatered using flocculant and reclaim water for make-up. The thickened slurry (underflow) is pumped to the CIP circuit tails tank and the thickener overflow is returned as mill make-up water. The CIP leach tanks discharge to the 5-stage CIP circuit, comprised of five individual CIP agitator tanks placed in series, where dissolved precious metals are adsorbed onto activated carbon particles. This is discussed in greater detail under the subsection **Carbon Stripping, Regeneration and Cyanide Detoxification**.

An EDC (approved by the Division in January 2010), authorized the installation of a high rate, pre-fabricated, deep-cone thickener to increase the percent solids content of the CST stream feeding CIP Tank 1. The CST Thickener provides a higher level of slurry density control when compared to the current system of utilizing the CIP Tank 1 feed cyclones to optimize the operating performance of CIP Tank 1 and increase gold recovery.

Thickener solids from the CST Pump are diluted with water provided by the CST Thickener overflow water. Thickener underflow is pumped to CIP Tank 1 or 2 and the effluent is gravity fed to the mill water tank. The CST Thickener underflow pump is controlled via a variable speed drive in order to keep the density of the thicker underflow at a pre-determined solids percentage. The percentage is determined by a densitometer installed in line with the pump outlet. The mass flow rate is calculated based on the densitometer output and the measurement of the volumetric flow rate. During the thickening stage, flocculant is injected to increase the settling rate.

A flocculant delivery system supplies flocculant to the CST Thickener. The flocculant is conveyed from the Flocculant Storage Tank and diluted with fresh water through an inline mixer before being fed to the thickener. Flocculant addition and volumetric flow is measured with flow meters and percent solids are measured by a densitometer. Dilution water feed is controlled by a flow control valve incorporating both the flocculant flow rate and a 10-percent dilution ratio.

In May 2017 the Division approved an EDC for the conversion of Leach Tank #1 to a surge tank. The modification aids in the managing of the talc within the ore currently processed at the mill, which has been overwhelming the trash screens. In August 2017, the Division commissioned the surge tank.

**Carbon Stripping, Regeneration and Cyanide Detoxification:** Loaded carbon collected for stripping and tails discharge slurry are treated in a Caro's acid [peroxymonosulfuric acid ( $\text{H}_2\text{SO}_5$ )] destruction circuit prior to discharge to the TSF. An EDC (approved by the Division in January 2008), authorized the addition of two new agitation/reactor tanks and a pumping tank to increase slurry-Caro's acid retention time and cyanide detoxification efficiency prior to the discharge of CIP tailings slurry into the TSF. An EDC (approved by the Division in May 2013) authorized the addition of an INCO/Sulfur Dioxide cyanide detoxification process, which includes the permanent placement of a 12-foot diameter 6,000 gallon polyethylene tank and associated piping. All tanks, pumps, and piping are placed within containment in the Phoenix Mill building, south of the existing CIP area and adjacent to the Tailings Collection Tank.

Loaded carbon is transferred from the mill CIP circuit by pipeline and may be combined with loaded carbon trucked from the Reona Gold HLP Carbon-in-Column (CIC) Adsorption Circuit. The carbon is washed with hydrochloric acid in the acid wash tank, neutralized with caustic soda, and pumped to the strip vessel. Copper is removed from the carbon by an ambient temperature cyanide rinse and the resulting rinse solution is pumped to the leach circuit. Following the cyanide rinse for copper, the carbon is stripped of precious metals with a hot caustic solution. Barren carbon is conveyed through a regeneration kiln and the activated product is mixed with fresh make-up carbon and either pumped to CIP Agitator Tank 5 for reintroduction into the CIP Recovery Circuit or loaded into a transfer truck for the Reona CIC Circuit.

Pregnant solution from the carbon stripping process is pumped through a circuit comprised of four electrowinning cells. The electrowinning precipitate is filtered, heated in a retort to remove mercury, dried, and then shipped to Newmont facilities at Twin Creeks or the Carlin complex for refining of precious metals.

**Reona Gold HLP:** Heap leach grade ROM gold and silver ore is transported to the Reona Gold HLP via haul trucks. The ore is conditioned prior to placement on the heap leach pad by adding lime in measured amounts to the haul trucks as they pass below silos and/or by adding milk-of-lime once the ore is on the HLP.

Cyanide leach solution is applied by drip emitters and/or sprinklers to the surface of the ore on the HLP. The leach solution then percolates down through the ore, dissolving the gold and silver. The pregnant solution, flows along the pad liner and is collected in piping within a lined solution collection ditch located along the down-gradient edge of the pad. The pregnant solution passes through carbon columns for gold and silver recovery before being recirculated back to the HLP. Loaded carbon from the Heap Leaching Circuit is either processed on-site or off-site through a pressure stripping and electrowinning process. Stripped carbon is loaded directly back into the columns or regenerated and then reused in the processing plant.

The Reona Gold HLP was constructed in four phases, with a fifth phase approved as part of the "Phoenix Expansion" (Major Modification approved by the Division in June 2001) but not yet built. Phases 1 and 2 were completed in 1994, and totaled approximately 2.5 million square feet of heap leach pad. Phase 3 was completed in 1995, and created an additional 1.1 million square feet of HLP tied to the west side of Phase 1. Phase 4 construction was completed in November 1996, and consists of an additional 0.6 million square feet of HLP located along the east side of Phase 2. The total Reona Gold HLP area constructed is approximately 4.2 million square feet, or about 96 acres. The maximum HLP height is 320 feet above the primary HDPE liner surface.

The Major Modification authorizes the construction of the Phase 5 HLP and will expand the Reona Gold HLP footprint by approximately 1.2 million square feet along the east side of Phase 4. This expansion, if completed, is expected to increase HLP capacity by 9.8 million tons and total pad capacity to 33.9 million tons of leach-grade ore and a ultimate pad height of 200 feet above the HDPE liner surface. Because of the depletion of heap leach grade ores, it does not appear that Phase 5 construction will be initiated.

Both the Reona and the authorized Phoenix Expansion HLP liner systems are identical in design. The liner systems are comprised of 80-mil HDPE placed over a minimum 12-inch prepared soil subgrade with a coefficient of permeability no greater than  $1 \times 10^{-6}$  cm/sec when compacted to a maximum dry density of 97 percent (American Society for Testing and Materials (ASTM) Method D1557). The Permittee has successfully demonstrated to the Division that a friction layer, comprised of sand and gravel embedded within the upper zone of the prepared subgrade layer at the interface with the HDPE liner, will provide the necessary long-term frictional resistance and increased horizontal stability of the HLP. The friction material has a nominal particle size between 0.05 to 0.5 inches in diameter and will be broadcast across the surface of the prepared subgrade. Mechanical compaction equipment is used to embed the sand and gravel such that a composite material conforming to the requirements of the prepared subgrade is achieved.

Separate leak detection and collection is provided by 2-inch diameter perforated pipe located along the western berm of each cell below the 6-, 8-, and 12-inch diameter collection pipes and beneath the HDPE-lined concrete solution recycle sumps located at the solution discharge point for each cell. This is discussed in greater detail under the subsection **Reona Gold HLP Leak Detection System**. A portion of the Reona Gold HLP was unloaded and used to construct the TSF.

Approval by the Division on 20 May 2011 authorized the utilization of up to 30 million tons of characterized spent ore from the Reona Heap Leach facility for use as internal TSF embankment fill, filter fill material, and alluvial fill cover for construction of the Phoenix TSF. All random fill and cover material will meet Technical Specifications for Construction of the Phoenix Mine Tailings

Impoundment Facility Stage 4, Section 02205-3,4,5,6 Sections 2.02, 2.05 and 2.07 (Golder Associates, May 27, 2010).

**Reona Gold HLP Leak Detection System:** The leak detection system within Phases 1-3 (PD-1 through PD-9) of the Reona Gold HLP is comprised of 2-inch diameter polyvinyl chloride (PVC) leak detection pipes under the liner within the friction layer. The leak detection pipes are placed adjacent to and upgradient of each cell separation and phase separation berm and surrounded by leak detection sand. The 2-inch diameter leak detection pipe is booted through the liner and daylighted in the solution ditch above the storm flow level where it is visually monitored on a daily basis. Any leaking fluids would report to the solution ditch and flow by gravity within the solution channel into the Reona Event Pond (EP-1). This is discussed in greater detail under the subsection **Reona Gold HLP Event Pond**.

Phase 4 of the existing leach pad (PD-10) and the authorized Phoenix Expansion cells (PD-11 through PD-14), differ from Phases 1-3. Along the western berm of each cell is a 42-inch wide composite drain placed under the HDPE liner. The composite drain transitions to a 2-inch diameter non-perforated PVC leak detection pipe at the end of the cell outlet. The leak detection pipe is placed within a 6-inch diameter HDPE pipe and conveys flow under the solution collection channel to an HDPE observation manhole located at the southern edge of the channel. Each cell has a dedicated manhole, equipped with a submersible pump to remove fluids and record quantities. The manhole is also equipped with an overflow pipe to direct solution into the lined collection channel if necessary.

Flow measurement data, if any flow is present, are collected from the leach pad and solution sump leak detection pipe daily. Flow rates exceeding 25 gpd in any one leach pad leak detection pipe indicate that the leach pad or solution collection ditch is leaking. Efforts will be undertaken to report the leak, identify the source (i.e., leach pad cell) of the leak and initiated to isolate and/or repair the leak.

**Reona Gold HLP Event Pond:** The Reona Gold HLP Event Pond (EP-1) has a total storage capacity of 16,869,000 gallons. A second event pond (EP-2) is approved and is required for construction with the Phoenix Expansion of the Reona Gold HLP. EP-2 (when constructed) will have a total storage capacity of 10,436,000 gallons and have a construction similar to that of EP-1 incorporating a liner system comprised of 60-mil HDPE primary and secondary liners with an HDPE geonet layer sandwiched between the liners and allow for drainage to a leak detection and collection sump. This is discussed in greater detail under the subsection **Reona Gold HLP Event Pond Leak Detection System**.

The normal operating volume of EP-1 is 4,023,472 gallons and the freeboard volume (at 2 feet of freeboard) is an additional 2,451,000 gallons. Design criteria for EP-1 incorporated the resultant fluid volume from a 25-year, 24-hour storm event, fluid volumes associated with the full draindown at the design rate of 3,000

gallons per minute (gpm) solution application rate resulting from a 24-hour cessation of pumping due to a pump/power outage, and the 110-percent draindown of the largest process solution tank with a volume of 70,000 gallons.

Process fluids in the heap leaching circuit are managed by maintaining a 1-foot deep “dead” storage volume of approximately 1,205,000 gallons of solution in EP-1. The heap leach process normally operates in a negative water balance situation, with makeup water added to the circuit on an “as-needed” basis to maintain solution volume equilibrium and minimize fluid accumulation in EP-1.

During periods of no leaching or when the available solution inventory is in excess of the dead storage volume, the excess solution is recycled to the Phoenix TSF or Mill Process Circuit via pipeline with secondary containment at a maximum rate of 250 to 300 gpm.

**Reona Gold HLP Event Pond Leak Detection System:** The EP-1 leak detection system is comprised of a geonet leak detection layer placed between the two HDPE liners. This allows for a preferential flow path for any fluids escaping the primary liner to the leak collection sump located at the lowest corner of the pond and a reduction of hydraulic head against the secondary liner in the event of leakage from the primary liner. A dedicated pump installed in the sump riser pipe is used for weekly monitoring of fluids present and, if necessary, the evacuation of fluids from the sump.

**Phoenix Copper Leach Project:** The Phoenix Copper Leach Project (Major Modification approved by the Division in June 2010) is comprised of two copper HLPs, Phoenix and Reona. The Phoenix Copper HLP is designed to leach ROM copper ores with low gold values; the Reona Copper HLP is designed to leach ROM copper ores with high gold values. Average sulfuric acid leach solution application rate to the Phoenix and Reona Copper HLPs is 12,500 gpm and 1,000 gpm respectively, total combined application rate is limited to 15,000 gpm. Application rate per unit area is limited to 0.01 gpm/square foot. The heaps are designed with a minimum setback of 30 feet from the toe of the containment berm to the toe of heap and a nominal lift height of 20 feet (25 feet for the initial lift).

Both pads have dedicated process and event ponds, conveyance pipelines and channels, monitoring devices, diversion structures and a share a common SX-EW circuit. These are discussed in greater detail under the section **Phoenix and Reona Copper HLP Design**.

Pursuant to WPCP NEV0087061, Part I.N.3--Continuing Investigations, the Permittee is required to perform, long-term column leach tests to generate data in an effort to further refine the Tentative Plan for Permanent Closure (TPPC) and to eventually develop a Final Plan for Permanent Closure (FPPC) for the Phoenix and Reona Copper HLPs and associated facilities. Refer to the subheading **Phoenix**

**Copper Leach Project Tentative Plan for Permanent Closure (TPPC)** for additional details.

With each subsequent application for renewal of this Permit or operational or facility change that could affect the Phoenix Copper Leach Project and TPPC, the Permittee must reevaluate the TPPC and provide an update or modification of the plan.

The updated TPPC must include, but is not limited to, the following:

1. Any changes to the proposed closure methods of the solvent extraction-electrowinning (SX-EW) plant, copper leach facilities, and process ponds;
2. Any changes regarding the type and depth of cover proposed for placement at closure of the leach pads. Predictive modeling shall be updated to demonstrate the continued effectiveness of the proposed cover design and placement;
3. Any changes regarding the management of heap draindown solutions and solution disposal; and
4. Any changes regarding the projected time frames for leaching, solution recirculation/draindown, solution disposal, regrading of the leach pads and cover placement, pad revegetation, pond closure, and post-closure monitoring.

**Phoenix and Reona Copper HLP Design:** The Phoenix Copper HLP is located approximately 1,500 feet west of the TSF. The pad is rectangular in shape and extends approximately 5,060 feet in an east-west direction and approximately 3,350 feet in a north-south direction, covering an area of approximately 17,200,000 square feet. The pad has a total capacity of 150 million tons loaded to an authorized heap height of 300 feet. Associated with the Phoenix Copper HLP is a Pregnant Leach Solution/Sediment Pond (PLS/Sed Pond), a sump area for pumping Intermediate Leach/Raffinate Solution (ILS) and Pregnant Leach Solution (PLS), two Event Ponds (Phase 1 EP and Phase 2 EP), and ancillary facilities.

An EDC (Division approved 7 February 2018) to construct the Phoenix Copper HLP Phase 2 in two stages Phase 2A and Phase 2B.

The Phoenix Copper HLP is being constructed in phases (Phases 1A, 1B, 2A, 2B, and 3) to accommodate operational changes. Phases 1A and 1B are under active ore placement and leaching with Phase 2A currently under construction. At the completion of Phase 2, approximately 120 million tons of copper ore will have been placed on the pad liner and stacked to a maximum authorized height of 300 feet above the Phase 1 and 2 liner surface. When the decision is made to proceed with Phase 3 construction, an additional 30 million tons of ore will be placed on liner and stacked to a maximum authorized height of 300 feet above the liner surface. The decision to construct Phase 3 will be dependent upon future ore reserves and economics.

The Phoenix Copper HLP is designed to accommodate ten independent cells (identified as cells A through J) for solution collection purposes. Each cell is approximately 500 feet wide and will have a maximum length of 1,550 feet for Phase 1, 950 feet for Phase 2, and 850 feet for Phase 3.

Drainage within each cell is collected in a solution channel at the south end of the pad. The solution channel drains from east to west toward a low point, from which the channel then turns south to allow drainage flow to the Phoenix PLS/Sed Pond or one or both event ponds, located in the southwest corner of the Phoenix Copper HLP.

The two-phase Reona Copper HLP is located approximately 800 feet north of the TSF and 100 feet east of the Reona Gold HLP. Ore intended for placement on the Reona Copper HLP has a higher gold content; however, ore placement is expected to occur intermittently. Associated with the Reona Copper HLP is a Pregnant Leach Solution/Event Pond (PLS/EP). The PLS from the Reona Copper HLP is re-circulated and periodically directed to the SX/EX plant as feed based on copper concentration and solution volume. As of the end of 2017 the Reona Copper HLP had not been constructed.

The area for the Reona Copper HLP (Phase 1A and Phase 1B) is approximately 1,600 feet in an east-west direction and approximately 1,900 feet in a north-south direction. The Reona Copper HLP is designed to accommodate three independent cells. The cells vary from approximately 350 to 500 feet wide and 1,550 to 1,850 feet in length. Drainage within each cell is collected in a solution channel at the south end of the pad. The solution channel drains from east to northwest and then southwest toward a low point, from which the channel allows drainage to flow to the Reona PLS/EP, located southwest of the Reona Copper HLP.

The containment areas for the Phase 1A and Phase 1B pads are approximately 1,300,000 square feet and 1,100,000 square feet, respectively. The capacity of Phase 1A and 1B is approximately eight million tons loaded to an ultimate heap height of 300 feet above the primary liner surface. The Reona Copper HLP includes a pond that has been designed to store eight hours of operating volume, eight hours of draindown, and the flow generated by a 100-year, 24-hour storm event plus a 3-foot freeboard. The pond includes a sump area that will accommodate pumps to evacuate PLS solution to the SX-EW process plant.

Both the Phoenix and Reona Copper HLPs utilize identical liner system designs. The liner systems are comprised of a 12-inch thick prepared subgrade of low-permeability soil. The soil is compacted to a minimum 97 percent of maximum dry density (ASTM Method D1557) with a coefficient of permeability less than or equal to  $1 \times 10^{-6}$  cm/sec and overlain by an 80-mil double-textured HDPE liner. Friction material comprised of a mixture of sand and gravel (0.05 to 0.5 inches in diameter), is embedded within the upper zone of the prepared subgrade layer at the interface with the HDPE liner to provide additional frictional resistance and

increase horizontal stability of the HLP over the long term. The friction material is broadcast across the surface of the prepared subgrade and embedded through the use of compaction equipment such that a composite material conforming to the requirements of the prepared subgrade is achieved.

The HDPE liner extends up the side of the 4-foot high (minimum) perimeter berm where it is anchored in an anchor trench. The liner is overlain by a 12-inch thick protective layer of sand with gravel or silt, produced from the screening of existing stockpiled materials or copper tails.

A drainage layer composed of a 15-inch thick blanket of coarse aggregate overlies the protective layer network of perforated drainage pipes. The drainage layer transmits solution and precipitation flowing through the heap along the base of the pad to the ponds without an excessive buildup of phreatic head on the liner. Leach pad loading (toe) begins 30 feet (minimum) inside the perimeter berm to accommodate regrading of the heap side slopes at closure.

Following placement of ROM copper ore on the HLPs, sulfuric acid leach solution will be applied at a rate of 0.01gpm/square foot over the ore and allowed to percolate. The leach solution is comprised of raffinate (acidic solution exiting the SX circuit and no longer containing copper), recycled PLS, and spent solution from the SX Circuit. During winter operation, emitters may be placed below the surface of the rock material to prevent the lines and heap surface from freezing. Leach solution is collected and recirculated onto the fresh ore for approximately 90 days. Once this leach cycle has been completed, new ore will be placed on top of the previously leached ore.

The copper oxides and various other minerals present in the ore have the tendency to consume leach solution. The metals and non-metals solubilized and their concentrations are specific to the ores leached. Consequently, sulfuric acid is regularly added to the leach solution on an as-needed basis to maintain a leach solution pH between 1.5 and 3.0 standard units (S.U.). Maintaining the pH at these levels optimizes copper extraction and recovery and prevents unwanted precipitation reactions within the HLP due to high pH solution or excessive acid consumption when the pH becomes too low.

Evaporation of the water from the leach solution occurs at significantly different rates throughout the year. To maintain an adequate volume of leach solution, fresh process water is added on an as-needed basis. As the heap increases in height, the leach solution inventory increases. Therefore, the proper water and make-up acid addition to the leach circuit must be maintained at all times.

In 2016, the Phoenix CLP increased the total number of tons placed per year on the copper HLP from 6.5 million tons to 9 million tons. The copper leach process was using make-up water from a low chloride content well, producing approximately 240 gallons per minute. The increase to 9 million tons per year demonstrated that

the current make-up water flow rate was insufficient. The total flow rate of low chloride content water required will need to increase to approximately 1000 gallons per minute. At this make-up water addition rate, the total flow to the pad is still well below the permitted application rate to the copper HLP is 15,000 gpm.

The copper leach process requires low-chloride content water to efficiently leach the copper from the ore. The original plan to provide low chloride water for this process involved drilling a new fresh water well. The second option and the one selected that best supports the site water management efforts, uses a reverse osmosis-water treatment circuit (RO-WTC) to filter chlorides from the existing fresh water sources.

An EDC approved by the Division on 9 May 2016 authorized the installation of an RO-WTC at the Phoenix Project site and as-built approved 29 November 2016. The RO-WTC is housed in a sea container placed on precast concrete sleepers within existing containment. The RO-WTC is able to deliver 600 gpm of low-chloride content make-up water to the copper leach facility. The RO-WTC is located near the mill water distribution building. The RO-WTC is fed by fresh water from the freshwater tank (630-TK-116). The water is conveyed from the fresh water tank to the RO units. There are two RO units in the WTC. The low-chloride water is conveyed to an existing fresh water feed pipe which then flows to the Raffinate Tank (535-TK-141). The concentrated effluent will be pumped to the Mill Water Tank (200-N-0023).

***Solution Collection Piping System:*** Process solution infiltrating through the heap, collects in the drainage system at the base of the pad, and drains directly to the process ponds located downgradient of the pad. Based on the pipe size, configuration, deformation, and flow calculations, the solution collection piping system has more than adequate flow capacity to handle normal heap draindown in addition to the drainage from the 24-hour, 100-year storm event. With no pipe deformation, design flow volume through the pipes is 50 percent or less. All of the solution collection pipes are sized to handle flows necessary to maintain an application rate of 0.005 gpm/square foot.

As stated previously, the Phoenix Copper HLP is comprised of ten cells (identified as cells A through J) for solution collection purposes. Each cell contains a system of 4-inch diameter perforated ("Type-SP") corrugated polyethylene (CPE) collection pipes placed at a 20 or 25-foot center-to-center spacing in a "herring bone" pattern. The collection pipes direct flow toward 24-inch diameter "Type SP" CPE collection header pipes that are installed in trenches located near the center of each cell. The trenches for the collection header pipes are 12 inches lower than the pad grade and are underlain by a dedicated leak detection system. Refer to the subsection ***Process Component Monitoring System (PCMS)*** for additional details.

The perforated collection header pipe directs flow to the south end of each cell and then transitions to a solid 24-inch diameter HDPE pipe. At the perforated pipe-

solid pipe transition a containment berm has been constructed and covered by smooth 80-mil HDPE liner to serve as a solution retention sheet.

The solid pipe conveys the collected solution to a Parshall flume with flanged connections. The flume structure design allows for flow measurement and directs the outflow into a 24-inch diameter solid HDPE pipe and then to the 32-inch diameter solid HDPE Phoenix PLS Pipe in the solution channel.

As stated previously, the Reona Copper HLP is comprised of three independent cells (identified as cells A through C) for solution collection purposes. Each cell contains a system of 4-inch diameter "Type SP" CPE collection pipes placed at a 25-foot center-to-center spacing in a "herring bone" pattern. The collection pipes direct flow toward 12-inch diameter "Type SP" CPE collection header pipes installed in trenches located near the center of each cell. The trenches for the collection header pipes are placed 12 inches below the pad grade and are underlain by the PCMS.

The perforated collection header pipe directs flow to the south end of each cell and then transitions to a solid 24-inch diameter HDPE pipe. At the perforated pipe-solid pipe transition location, a berm has been constructed and covered by smooth 80-mil HDPE liner to serve as a solution retention sheet.

The solid pipe conveys the collected solution to a Parshall flume with flanged connections. The flume structure design allows for flow measurement and directs the outflow into a 24-inch diameter solid HPDE pipe and then to the 32-inch diameter solid HPDE Reona PLS Pipe in the solution channel.

**Solution Channels:** The leach solution channel design features trapezoidal cross sections, graded to a minimum slope of 0.75 percent toward the ponds. The channel design includes a 12-inch thick layer of prepared subgrade, double textured 80-mil HDPE geomembrane, and is underlain by a dedicated PCMS. Solid HDPE pipes direct flow from the pad area to the operating ponds. The pipes in the lined channel will be covered with gravel, leak detected and monitored by the PCMS. Where necessary, valves will be installed to direct the flow of solution.

The lined solution channel for the Phoenix Copper HLP is designed to slope from the east and west sides of the pad toward a low point at a grade of 0.75 percent. At the low point of the channel, the solution channel turns south to allow drainage to flow to the west side of the Phoenix Copper PLS/Sed Pond. A secondary solution channel is designed to intercept the primary solution channel north of the ponds and allows solution to be directed into the east side of the pond. A 32-inch diameter solid HDPE pipe conveys the PLS solution. At the intersection of the primary/secondary solution channels, a 32-inch diameter tee and valves control flow to either side of the Phoenix Copper PLS/Sed Pond.

The solution channel is constructed along the south side of the Reona Copper HLP. The channel slopes from east to west at a minimum grade of 0.75 percent and discharges to the Reona Copper PLS/Event Pond, located southwest of the Reona Copper HLP. A 12-inch diameter solid HDPE pipe installed within the lined channel conveys PLS solution flow.

**Process Component Monitoring System (PCMS):** The PCMS design is a combination trench and sump system for leak detection, collection and recovery. The PCMS is designed to allow independent monitoring of each heap leach pad cell as well as sections of the solution channels where flow is concentrated. At the outlet of each PCMS trench is a PCMS monitoring sump with an effective capacity of approximately 65 gallons. The PCMS monitoring sump consists of a pipe-in-pipe system to accommodate a small pump and discharge pipe for the purpose of removing any solution collected in the sump. In a system upset, the sump overflows back to the lined PCMS trench.

The PCMS is comprised of a 12-inch thick prepared subgrade layer of LHCSL, compacted to a minimum 92 percent of maximum dry density (ASTM Method D1557) and a coefficient of permeability less than or equal to  $1 \times 10^{-6}$  cm/sec, and an 80-mil smooth HDPE liner to promote lateral flow and restrict vertical infiltration. A 4-inch diameter perforated CPE pipe is placed within a 4-inch thick layer of gravel overlying the HDPE liner to provide additional flow capacity within the system. In areas where the pipe serves as an outlet pipe for future expansions, solid 6-inch diameter HDPE pipe is utilized. An 18-inch thick layer of gravel covers the pipes and is overlain with a layer of non-woven geotextile to limit migration of fines from the overlying 12-inch thick layer of prepared subgrade material.

**Process/Sediment, Process/Event, and Event Pond Design:** These ponds are located downstream of the Phoenix and Reona Copper HLPs. Ponds associated with the Phoenix Copper HLP include the Phoenix Copper PLS/Sed Pond and the Phoenix Copper Phase 1 and Phase 2 Event ponds. The Reona Copper PLS/Event Pond will be the only pond associated with the Reona Copper HLP.

A water balance analysis was used to size the ponds with the largest pond capacity requirements estimated to occur in Year 1 of loading for both ponds before the SX-EW Plant start-up. All ponds are surrounded by wildlife fences and bird balls are placed in the ponds to prevent birds from entering the pond area.

All ponds are double-lined and leak-detected, have side slopes of 2.5 horizontal:1 vertical (2.5H:1V), and depths that range between 10 and 30 feet. In addition, all ponds have a design freeboard of 3 feet in addition to their required storage for a 25-year, 24-hour storm event flow. The ponds are constructed with a 12-inch thick prepared subgrade of low-permeability soil, compacted to a minimum 92 percent of maximum dry density (ASTM 1557) and a coefficient of permeability less than or equal to  $1 \times 10^{-6}$  cm/sec, overlain by a secondary 80-mil HDPE geomembrane. A

layer of geonet is placed between the HDPE liners to convey any leakage from the 80-mil HDPE primary liner to the LCRS.

The pond floors are sloped toward a PLS collection sump, nominally 25 feet by 25 feet by 2 feet deep and have a capacity of approximately 6,100 gallons. The sumps are located in the corner of each pond and collect leakage for return to the SX-EW Plant. Beneath the collection sumps are the LCRS sumps, which are comprised of a layer of geonet, overlain by a primary 80-mil HDPE geomembrane. The LCRS sump consists of a depression filled with select gravel encapsulated in geotextile with an approximate effective capacity of 500 gallons. A 12-inch diameter HDPE riser pipe is installed along the pond slope to the bottom of the sump with the lowest 10 feet of pipe perforated for solution collection. A submersible pump is used to evacuate the sump.

The LCRS sumps collect drainage conveyed from the geonet and from the 4-inch diameter perforated CPE leakage collection pipes that run along the toe of the ponds and discharge into the LCRS sump. The sumps are constructed on the east side of the Phoenix Copper PLS/Sed Pond, and on the west side of the Reona Copper PLS/Event pond. The LCRS sumps consist of a lined depression filled with select gravel encapsulated in geotextile with an effective capacity of 500 gallons.

The Phoenix Copper PLS/Sed Pond and the Phoenix Copper Phase 1 Event Pond were constructed as part of the Phase 1 Phoenix Copper HLP construction. An additional event pond (Phoenix Copper Phase 2 Event Pond) is currently being constructed as part of the Phoenix Copper HLP Phase 2A construction to contain the maximum volumes associated with both the Phase 2 and proposed Phase 3 pads.

The footprint of the Phoenix Copper PLS/Sed Pond is approximately 665 feet by 195 feet. The pond has two compartments (a Sediment Storage Compartment and a PLS Compartment) separated by a 10-foot high internal berm (as measured from the Sediment Storage Compartment side) and a 12-foot high internal berm (as measured from the PLS Compartment). The Pond has a combined design capacity of 8.6 million gallons at 3 feet of freeboard. In addition a dedicated sump has been installed to collect and pump PLS solution to the SX-EW process plant.

The PLS Compartment is approximately 390 feet by 170 feet by 12 feet deep with a design capacity of 4.1 million gallons (at 3 feet of freeboard). The Sediment Storage Compartment has a design capacity of approximately 2.0 million gal (at 3 feet of freeboard) and measure 240 feet by 170 feet by 10 feet deep. The pond is designed to be drained by a low-level outlet pipe buried under the berm in the southeast end of the pond. The drain pipe is leak detected and monitored by the PCMS.

The Phoenix Copper Phase 1 Event Pond occupies a footprint of approximately 600 feet by 270 feet with a depth of 30 feet. Pond capacity is 19.8 million gallons at 3 feet of freeboard. The Phoenix Copper Phase II Event Pond occupies a footprint of

approximately 480 feet by 730 feet with a depth of 30 feet and a capacity of 52.2 million gallons at 3 feet of freeboard. These event ponds are connected by a spillway lined with 80-mil HDPE and leak detected. The spillway is designed to be 20 feet wide by 4 feet deep and the floor of the spillway is constructed 4 feet beneath the pond crest elevation. The spillway has design volumetric flow rate of 18,000 gpm at a flow depth of 0.75 feet.

A single process pond serves the Reona Copper HLP. The pond collects PLS from the pad and is designed with sufficient capacity to also serve as storm event pond. The Reona Copper PLS/Event Pond is located downstream of the Reona Copper HLP and is connected via an 80-mil HDPE lined and leak detected solution channel. The pond is approximately 500 feet to the southwest of the Reona pad and is rectangular in shape, measuring 450 feet by 190 feet by 18 feet deep. The Reona Copper PLS/Event Pond will have a design capacity of 6.1 million gallons at 3 feet of freeboard. A collection sump and pump system is installed to convey collected Reona Copper PLS/Event Pond solution to the SX-EW process plant, a distance of approximately 4,000 feet.

***Diversion and Sediment Control Structures:*** Stormwater diversion channels are constructed as part of the Phoenix and Reona Copper HLPs to intercept surface water runoff from upstream catchment areas and divert the flows around the proposed leach facilities to either a natural drainage or a constructed channel located downstream. The diversion structures are constructed and sized to accommodate the 100-year, 24-hour storm event. Sediment control structures are constructed in those areas where runoff from disturbed areas enters the surface water diversion system.

Diversion channels extend around the Phoenix Copper HLP along the north and west sides. The Reona diversion channel extends along the north and east sides of the leach pad and is separated from the leach pad by the pad perimeter road.

***Groundwater Monitoring for Copper Leach:*** Several new groundwater monitoring wells have been installed at the Phoenix Copper Leach Project area. Four new groundwater monitoring wells (HLP-1 through HLP-4), are located along the downgradient (south) side of the Phoenix Copper HLP. Two additional wells (HLP-5 and HLP-6) have been installed on the upgradient (north) side of the pad. If the gradient reverses as a result of dewatering, HLP-5 and HLP-6 will become downgradient wells and HLP-1 and HLP-4 will become upgradient wells. Two additional monitoring wells will be installed north of the leach pad and a new well (HLP-7) south of the leach pad. An existing monitoring well (CM-13) located south of the pad will also be utilized to monitor fluctuating groundwater conditions.

Four new groundwater monitoring wells are scheduled for installation within the Reona Copper HLP area. Monitoring well (RLP-1) will be located along the upgradient (north) side of the Reona Pad, two wells (RLP-3 and RLP-4) will be located along the downgradient (south) side of the Reona Copper HLP and a third

well (RLP-2) will be located downgradient (south) of the Reona Copper HLP PLS/Event Pond. In the event dewatering results in a gradient reversal, additional monitoring wells will need to be installed north of the Reona Copper HLP.

***Phoenix Copper Leach Project Solvent Extraction and Electrowinning (SX-EW):***

Solvent extraction (SX) is a method used to separate (extract) compounds based on their relative solubilities from one immiscible liquid phase to another. In an SX circuit, an immiscible organic solvent (also referred to as a “lixiviant”) is added to the PLS and thoroughly mixed.

The organic solvent is comprised of two components: a copper-specific extractant (similar in chemical composition to shortening) and an organic carrier/diluent (typically high flashpoint kerosene). During mixing, copper is removed from the PLS and loaded onto the extractant component. Once the extractant component is fully loaded, the immiscible phases are separated via specific gravity, with the lighter organic fraction above the heavier, acidic PLS fraction.

The acidic solution exiting the SX circuit and no longer containing copper is referred to as the “raffinate” and is recycled back into the acid leaching process. The copper-loaded organic solvent is pumped to a stripping circuit where a mixer-settler unit separates the copper from the organic solvent, yielding a high-grade solution for electrowinning. The organic solvent is returned for re-use in the extraction stage. The solid residue comprised of copper-bearing organics is referred to as “crud” and is allowed to settle out for eventual removal.

In its current configuration, the Phoenix SX-EW Circuit is designed to produce up to 12,000 tons of cathode copper annually from the PLS. The operation consists of an SX-EW circuit, a tank farm for reagent storage and distribution, a Raffinate Tank and a raffinate/PLS pumping and distribution network. All components are located on reinforced concrete containment, surrounded by a berm, coated with an acid-resistant compound and embedded with waterstop material at all concrete joints. Design containment is well in excess of the 110-percent minimum design criteria for the largest tanks present. Refer to the subheadings ***Phoenix SX Circuit, Phoenix EW Circuit, Tank Farm, Acid-Diluent Storage and Distribution System, and Raffinate and Organic Recovery Tanks*** for additional details.

***Phoenix SX Circuit:*** The Phoenix SX Circuit consists of two mixing-extraction-settling stages (referred to as E-1 and E-2) and one stage of mixing-stripping-settling (referred to as S-1), all placed within secondary containment (referred to as Containment Area #1710). Each stage has a nominal throughput of 5,000 gpm of aqueous feed and the piping is configured such that the E-2 mixer settler can also be operated as a parallel extractor, if necessary. The mixing phase for the E-1 and E-2 stages each consist of a Primary, Secondary and Tertiary Mix tank, all connected in series. The Primary Mix Tank has an operating volume of 8,300 gallons while the Secondary and Tertiary Mix tanks each have a volume of 12,000

gallons. The extraction-settling phase utilizes an Extraction Settler Tank, each 102 feet by 81.5 feet by 4.25 feet deep with a volume of 248,742 gallons.

The mixing phase for the S-1 stage consists of a Primary Mix Tank with a volume of 8,300 gallons and a Secondary Mix Tank with a volume of 12,000 gallons. The stripping-settling phase utilizes a Strip-Settler, 102 feet by 81.5 feet by 4.25 feet deep and a volume of 248,742 gallons.

In addition to the above components, other ancillary equipment such as pumps, piping, centrifuges, and heat exchangers are utilized in the SX Circuit for the conveyance and treatment of electrolyte solution and the management of crud to acceptable levels. All components are constructed of stainless steel or other acid resistant materials. Each tank is covered with acid-resistant covers to protect the solutions from external particulates, ultraviolet radiation, and wind, and to inhibit evaporative losses from the settlers. Piping for SX process solution is placed in lined trenches located between the tanks and sized to contain the volume of one mixer-settler in the event of failure. Available secondary containment for Containment Area #1710 is 832,658 gallons which equates to 219-percent of the required containment volume. The containment area construction consists of a reinforced concrete pad and stem wall network with an acid resistant coating and embedded with waterstop material at all concrete joints.

During active SX operations, the first stage of extraction (E-1) receives pregnant leach solution (PLS) and partially loaded organic from the second stage of extraction (E-2) and produces a loaded organic and a partially depleted copper leach solution.

The second stage of extraction (E-2) receives the partially depleted leach solution and stripped organic and produces a partially loaded organic and raffinate (or barren aqueous solution).

The stripping stage (S-1) receives loaded organic and lean electrolyte and produces rich electrolyte and stripped organic.

Operation of the SX Circuit is maintained by controlling PLS, loaded organic, lean electrolyte, and aqueous recycle solution flows. As the copper concentration in the various streams changes the flow rates are also changed to maintain a chemical "steady-state" condition. Crud must be periodically removed from the settlers and processed for recovery of contained organic. The crud can be pumped, drained, or flooded out of the settler under controlled conditions and then processed through the centrifuge located in the tank farm.

An EDC approved by the Division on 14 February 2014, authorized improvements to the SX/EW Plant and Circuit first identified during the 2013 commissioning of the plant and circuit. In its initial As-Built configuration, instrumentation associated with the mixing tanks became submerged in solution resulting in the

instrumentation shorting out and the tanks overflowing. The addition of 1-foot extensions on the tanks reduced these issues. In order to facilitate the mixing of starch utilized in the plant, the existing starch tank was replaced with a tank that is equipped with baffles and an upgraded mixing system. Additionally, a recirculation pump and line will be added to the starch tank in order to promote mixing of the starch and keep it suspended in solution.

To safely complete the maintenance work being conducted in the SX settler area, including weir and picket fence adjustments, the organic solution needed to be removed and temporarily stored for approximately two weeks. To temporarily store the organic solution, seven 20,000-gallon tanks, each equipped with secondary containment were temporarily installed on the Phoenix Copper HLP.

**Phoenix EW Circuit:** The Phoenix EW circuit is comprised of two rectifiers, 30 electrowinning cells, a cathode wash and stripping machine, and an acid mist extraction and scrubbing system, all located within an enclosed building (EW Building). Secondary containment for the entire EW Circuit (referred to as Containment Area #1720) consists of reinforced concrete pad and stem wall network with an acid resistant coating and embedded with waterstop material at all concrete joints. Available secondary containment for Containment Area #1720 is 32,820 gallons which equates to 960-percent of the required containment volume and also allows for future expansion.

The two rectifiers provide D.C. power to the cells for the electrowinning process. The rectifiers are located outside the south-east side of the EW Building. Each rectifier has an output capability of 0 to 20,000 amps and 0 to 75 volts.

The electrowinning cells are constructed of acid-resistant polymer concrete. Each cell contains 60 stainless steel cathode mother blanks and 61 rolled lead-calcium-tin anodes. The center to center spacing between anodes and cathodes is 4 inches. The anodes and cathodes are connected electrically in parallel within a cell and in series between cells so that ideally each anode/cathode pair receives the same amperage. Electrolyte is fed to each cell from a distribution header and enters through a manifold in the bottom of each cell. The electrolyte discharges from the cells at the top of the end of the cell near the center walkway and enters one of two discharge headers which carry it to the Lean Electrolyte Tank.

For optimum copper recovery, electrolyte entering the EW Building requires the addition of heat to maintain a temperature of 120 degrees Fahrenheit (°F) to optimize reaction kinetics. Direct current, generated by the rectifiers, flows from anode to cathode, resulting in the plating of copper onto the cathode. A typical EW cycle lasts between 5 and 7 days in duration. At the end of the cycle, the copper loaded cathodes will be removed from the EW cell and sent to a cathode washing/stripping machine, to remove any residual electrolyte solution and any other contaminants adhering to the copper surface.

The cathode stripping machine actually consists of several related functions. The cathodes are washed and the copper cathodes are removed from the stainless steel cathode mother blanks and stacked; the stripped mother blanks are then returned to the cells. All wash water is recycled as make-up water and for recovery of any residual copper content. The copper is mechanically removed from the cathodes by the stripping operation.

The EW process results in the oxidation of the lead anode surface, creating lead oxide sludge. The amount of sludge generated is a function of the EW circuit operation and power application. Starch is added to the electrolyte to create a smooth cathode surface since a smooth surface is less likely to trap lead oxide flakes and less likely to retain electrolyte during cathode washing. Cobalt sulfate is added to the electrolyte solution to stabilize the amount of anode surface corrosion and limit lead oxide formation on the anodes. The lead oxide sludge collected on the anodes and in the bottom of the cells is removed and returned to the anode supplier for reprocessing. Anode life expectancy is typically 5 to 10 years. At the end of their useful life, spent anodes are returned to the anode supplier for reprocessing.

A crane is used to transport anodes and cathodes within the EW Building. The electrolyte recirculation tank receives electrolyte via overflow from the lean electrolyte tank and returns the electrolyte to the commercial cells. The lean electrolyte tank receives lean electrolyte from the discharge of the cells in the tank house. The majority of the solution overflows the lean electrolyte tank into the electrolyte recirculation tank. Some of the lean electrolyte is used for backwashing of the electrolyte filters and some is pumped to the stripping stage primary mixer in the SX Circuit.

The EW process also results in the generation of oxygen at the anode during the plating of copper. When oxygen bubbles break the solution surface and burst, small droplets of the acidic copper electrolyte are released into the air, creating an acid mist within the EW Building.

A ventilation system, consisting of individual hoods on each EW cell is connected to a collection header and ductwork to maintain sufficient flow of air across the top of the cells to keep any airborne mist from escaping the hood and entering the working zone. All wash water generated by the scrubber operation is recycled back to the SX-EW Circuit as make-up water.

***Tank Farm and Acid-Diluent Storage and Distribution System:*** The Tank Farm (referred to as Containment Area #1715) and Acid-Diluent Storage and Distribution System (referred to as Containment Area #1815) are located southwest of the SX area, within bermed, concrete pads, coated with an acid-resistant compound and embedded with waterstop material at all concrete joints. All tanks, piping and pumps are constructed of stainless steel or other acid-resistant materials. Available containment for the Tank Farm is 267,873 gallons which equates to 128-percent of the required containment volume. Available containment for the Acid-Diluent

Storage and Distribution System is 368,138 gallons which equates to 128-percent of the required containment volume.

Tanks storing temperature-sensitive reagents are located inside the EW Building. All organic solution tanks and pumps are stored outside for fire prevention/protection purposes.

The Tank Farm contains a centrally located concrete trench, which serves as a sump and permits the collection of drainage from the process facility and any overflows from the tanks. Approximate effective capacity of the sump is 54,000 gal and has an internal API-type baffle system which allows for the recovery of any spilled organic substances from this area. The sump drains to the **Raffinate Tank**.

The equipment in the Tank Farm area is arranged as follows:

1. The Loaded Organic Tank (total volume 128,250 gallons) receives loaded organic from the overflow launder of the first stage of extraction. The loaded organic is then pumped back to the stripping stage;
2. The Filter Feed Tank (total volume 30,000 gallons) receives rich electrolyte from the stripping stage and holds it until it is pumped through the filters;
3. The Crud Decant Tank (total volume 17,131 gallons) receives various mixtures of solutions from the settlers and holds it for processing through the crud treatment system and is used as a treatment tank if clay treatment of the organic is desired. If special treatment is not required, the Crud Decant Tank is used merely as a Centrifuge Feed Tank. Overflows from all tank farm area tanks also go into the Crud Decant Tank;
4. The Crud Filter Filtrate Tank (total volume 846 gallons) receives clean organic produced by the Filter Press and holds it until it is pumped back into the loaded organic tanks;
5. The Electrolyte Filter Backwash Storage Tank (total volume 13,500 gallons) receives lean electrolyte solution that has been used to backwash the electrolyte filters and holds it until it is pumped to the E-1 settler at a controlled rate. The Filtered Electrolyte Tank receives the filtered rich electrolyte from the filters and holds it until it is pumped through the heat exchangers and on to the electrolyte recirculation tank; and
6. The Electrolyte Recirculation (total volume 54,146 gallons) and the Lean Electrolyte tanks (total volume 24,000 gallons) are located within the Tank Farm containment area but are associated with the **Phoenix EW Circuit**.

Equipment associated with the Acid-Diluent Storage and Distribution System includes but is not limited to the following:

1. A reagent addition and metering system for acid mist suppression during electrowinning;

2. A cobalt-sulfate addition and metering system;
3. A starch addition and metering system;
4. A diatomaceous earth or clay addition metering system;
5. An extractant addition and metering system package;
6. A Diluent Storage Tank (total volume 16,920 gallons) and metering system pump;
7. Two sulfuric acid storage tanks of carbon steel construction (total volume 169,684 gallons, each) with distribution pumps for leach pad acid; and
8. One EW Acid Storage Tank of carbon steel construction (total volume 11,850 gallons) with distribution pump for high purity electrowinning cell make-up acid.

The utility and ancillary facilities associated with the SX-EW Circuit include but are not limited to the following:

1. A hot water system with three natural gas-fired, 4 million British Thermal Unit per hour (BTU/hr) heaters, and distribution pumps and piping to electrowinning and electrolyte heating;
2. A 50 gpm reverse-osmosis system with storage tank and distribution pump;
3. Two air compressors (one operating and one standby), rated at 200 standard cubic feet per minute (scfm) at 125 pounds per square inch-gauge (psig) output. Air dryer and receivers are located at SX, electrowinning and the tank farm;
4. A site substation including a meter, transformers and switchgear to distribute electric power at 13.8 and 4.16 kilovolts (kV); and
5. A Reverse Osmosis Water Tank (total volume 8,812 gallons) and Fire/Process Make-up Water Tank (total volume 67,860 gallons).

**Raffinate and Organic Recovery Tanks:** The Raffinate Tank (total volume 526,380 gallons), organic Recovery Tank (total volume 8,225 gallons), and their associated pumping systems supplies barren leach solution (raffinate) to the HLP. PLS pumps receive PLS from an intake at the PLS Pond and pump the PLS via a lined pipeline corridor to the E-1 and E-2 solvent extraction settlers at the SX-EW plant. All components are located within containment (referred to as Containment Area #0535) with an available volume of 579,018 gallons which equates to 127 percent of the required containment volume.

The Raffinate Tank discharges the solution by gravity to the HLPs. Initially, the raffinate will be delivered by gravity, but a provision for raffinate pumps is provided for the future increase in elevation of the leach pad. At the Raffinate Tank there is an Organic Recovery Tank (total volume 8,225 gallons) that recovers the undissolved organic residue floating on the surface of the tank. This system is

comprised of a collection tank and organic transfer pump that returns the recovered organic to the Crud Decant Tank.

The Raffinate and Organic Recovery tanks are located within containment in what was originally intended to be the double-lined Raffinate Pond which was originally approved for construction as part of the Phoenix Copper Leach Major Modification.

The pond has surface dimensions of 420 feet by 140 feet, with a depth of 24 feet and with side slopes of 2.5H:1V. The double-lined pond is comprised of a 12-inch prepared subgrade of low-permeability soil, compacted to a minimum 92 percent of maximum dry density (ASTM Method D1557) and a coefficient of permeability less than or equal to  $1 \times 10^{-6}$  cm/sec, overlain by a secondary 80-mil HDPE liner, and an LCRS consisting of a layer of geonet, and overlain by a primary 80-mil HDPE liner.

The pond floor is sloped toward a floor sump, 25 feet square by 2 feet deep. Beneath the floor sump is an LCRS sump installed to collect any flows that may pass through the primary liner. The LCRS sump is filled with pea gravel and has an approximate effective capacity of 500 gal. The sump collects drainage from the geonet and from 4-inch diameter perforated CPE pipes that run along the toe of the pond and discharges into the LCRS sump. The LCRS sump consists of a depression between the primary and secondary liners, filled with select gravel encapsulated in geotextile. A 12-inch diameter HDPE riser pipe is installed between the liners along the pond slope to the bottom of the sump with the lowest 10 feet of pipe perforated for solution collection. A submersible pump is used to evacuate the sump. Netting has been placed over the Raffinate Tank to prevent birds from entering the tank. .

An engineered pad and access ramp, approximately 110 feet by 140 feet, to accommodate the Raffinate Solution Tank and Organic Solution Recovery Tank. The pad is comprised of a 2-foot layer of structural fill overlying a 2-foot layer drainage rock, all overlying a 1-foot layer of gravel. Within the gravel layer is a perforated, 4-inch diameter, corrugated polyethylene (CPE) leak collection pipe which drains to the remaining portion of the Raffinate Pond. Construction of the engineered pad and access ramp has substantially reduced available pond capacity from 5.6 million gallons (as designed) to 579,018 gallons.

**Secondary Containment Trenches:** Two HDPE-lined secondary containment trenches accommodate pipelines that exit the SX-EW plant and return process solution back to the Phoenix and Reona Copper HLPs. The pipeline to the Phoenix Copper HLP consists of 20- and 28-inch diameter pipe contained in a 9,825 feet long trench lined with 80-mil HDPE. The trench begins at the Raffinate Pond and is configured to allow any solution (process or meteoric) present in the trench to drain to the Phoenix Copper HLP. The pipeline to the Reona Copper HLP will consist of two 8-inch diameter pipes contained in a 2,500 foot long trench lined with 80-mil HDPE. The trench will begin at the Raffinate Pond and is configured

to allow any solution (process or meteoric) present in the trench to drain to the Reona Copper PLS/Event pond.

***Phoenix Copper Leach Project Tentative for Permanent Closure (TPPC):*** The tentative closure of the Copper Heap Leach facilities is discussed in greater detail in the document entitled “*Tentative Permanent Closure Plan, Phoenix Copper Leach Project—2014 Revision*”.

Once sulfuric acid leaching of the copper HLPs is discontinued, the Permittee will initiate solution recirculation and forced-air solution evaporation. Evaporators will be relocated periodically to other areas of the copper HLPs and precipitate generated as a result of the forced-air evaporation will be bladed, covered, and seeded. Solution recirculation is expected to continue until all draindown from the heap can be managed exclusively via active evaporation.

Process ponds will be converted to backfilled evaporation (E)-cells. The backfilled E-cells will be designed to a sufficient size to contain the residual draindown. The design capacity will consider the predicted post-closure draindown of 15 gpm from the copper leach pads and assume limited maintenance. Evaporation will continue on top of the pad until draindown from the heap has reached “steady-state” passive draindown. At that time the remaining portions of the pad will be capped with 5 feet of alluvial cover material and seeded. Steady-state draindown flow will be routed to an E-cell.

In the event that flow to the E-cell exceeds design capacity, the solution will be handled as described in the Fluid Management Plan for the Phoenix Copper Leach Project (Newmont 2007). If the initial E-cell becomes unusable, an additional E-cell will be constructed. An additional E-cell will be constructed as needed to handle passive drain-down flow.

Any precipitate that forms on top or within the E-cell will be removed, landfilled on top of the pad, and covered with 5 feet of alluvial cover material. Although it is not anticipated, any radioactive precipitates that form will be managed and disposed of pursuant to local, State, and Federal regulations.

The piping systems used to transport reagents and process solutions through the process will be visually inspected to identify any remaining contaminants following cleaning and rinsing. Solids contained within sumps, ponds, and other containment areas are anticipated to be mostly mixtures of residual ore and process reagents. These solids will be disposed on the existing copper leach pad.

The copper HLPs will be regraded and recontoured to prevent surface ponding and the heap leach pad will be covered with 5 feet of capping material to limit meteoric water infiltration. The pad and loading plan have been designed so that leach ore will remain on the HDPE liner during regrading of side slopes. The current plan is for solution to continue to be actively evaporated on top of the pad. Data from the

Copper Basin Reclamation Project and other studies indicate that 5 feet of capping material will be adequate to limit meteoric water infiltration, and the study is in progress.

The Reclamation Plan and Reclamation Cost Estimate (RCE) specify a synthetic liner cap with a 3-foot thickness of growth media on top of the liner; however, additional testing and field trials are in progress to determine if a soil cover of a specified thickness without a synthetic liner would be an acceptable alternative closure strategy to minimize meteoric water infiltration onto the pad.

The copper facilities will contain a variety of components that require characterization prior to closure activities. Those that will not require characterization include, but are not limited to, drip tubes and pipelines, which will be buried in place. Process-related components and adjacent soils that require characterization include maintenance buildings where solvents and other petroleum products were used and stored, laboratory areas, and chemical and petroleum product storage tanks and associated piping. These components will be visually inspected to identify any remaining contaminants following cleaning and rinsing. Plastic pipe will be buried in place on the heap and metal piping will be rinsed and salvaged.

Long-term column leach tests performed during the operation of the Phoenix Copper Leach Project are intended for use in the development of a FPPC for the Phoenix Copper Leach Project. Data to be collected includes, but is not limited to, composite samples for mineralogical, MWMP-Profile I, and ABA analysis. Data is submitted on an annual basis for review.

The SX-EW facility area contains a variety of components and many of these will require some level of characterization prior to the initiation of closure activities and their removal. Process related structures and equipment will be rinsed prior to their removal and will be recycled, reused, and disposed in a manner consistent with local, State, and Federal regulations. Reclamation activities include but are not limited to demolishing buildings and structures. Concrete structures and foundations will be inspected and soils beneath the foundations will be characterized if the concrete was previously cracked or visual examination suggests potential for contamination of soils. Based on characterization results, concrete will then be removed or broken and covered in place with 5 feet of cover material.

**Copper Heap Leach Pad Cover Studies:** The Major Modification (approved by the Division in June 2010) required the Permittee to develop and implement a work plan identifying future Phoenix and Reona Copper HLP closure-related data collection.

A preliminary work plan was submitted to the Division in September 2010. Over the next several months, specifics regarding the type of data required and methods of collection were outlined. Design of the Project was divided into two phases

(Phase 1 and Phase 2) to evaluate water storage capacity for cover soils at the Phoenix Project site. Phase 1 (EDC approved by the Division in March 2011) was a compilation and review of available data related to meteorological parameters, borrow soil characteristics and plant community properties.

Included in the Phase 1 report was a preliminary calculation of water storage requirements based on records of precipitation and evaporative demand from nearby weather stations. Those requirements are consistent with the conceptual cover advanced by the Permittee for closure of the Phoenix Copper HLP. The report also included recommendations for additional modeling, identification of a nearby reference site for revegetation studies and a field test facility to provide direct measurement of one or more proposed cover designs.

Phase 2 (EDC approved by the Division in July 2012 and completed in August 2012), authorized the design, construction, operation, and closure of the Test Facility.

The Test Facility consists of three large scale drainage lysimeters located south of the Phase 1 Copper HLP. The three lysimeters have been constructed to test soil cover thickness of 2, 3, and 5 feet. The cover soil, obtained from nearby sources, is representative of the soil material prepared for use in the final reclamation of the Copper Leach Facility.

The dimensions of each lysimeter are approximately 33 x 66 feet. Each lysimeter is lined with 60-mil linear low-density polyethylene (LLDPE) liner with an outlet pipe to collect and discharge any water that percolates through the soil material in the lysimeter. The depth of each lysimeter is 7 feet, including the depth of soil cover, plus a lower base layer of waste rock.

The interface of the soil cover and waste rock is representative of the final reclamation configuration of the Copper Leach Facility when soil cover is placed on the spent leached ore. The soil profile within each lysimeter has been duplicated in a 16-foot zone surrounding each lysimeter. This zone is available for destructive testing and other testing not appropriate with lined lysimeters.

Soil water content sensors are placed at multiple locations and depths in the soil profile within each lysimeter. Instrumentation is installed on each lysimeter to measure the volume of any water that percolates through the cover profile.

Meteorological data, soil profile moisture content, and drainage volume from the base of each lysimeter has been collected since August 2012. A summary report is prepared annually and submitted to the Division with the annual monitoring report for WPCP NEV0087061. To date, soil moisture and net percolation flux monitoring data indicate that the lysimeters have achieved or are nearing conditions representative of steady-state ambient precipitation conditions.

Water content in the cover materials increases in response to infiltration of winter and early spring precipitation and snowmelt and subsequently dried slowly in summer and fall. Cover wetting and rapid drying has also been observed from higher-intensity summer precipitation events.

Lysimeter drainage values represent early construction conditions and uninterrupted monitoring over a number of additional water years is necessary to allow for cover material wetting and drying cycles that will replicate the expected long-term capacity for the cover system to limit net percolation flux. Depending on the results, the Division will determine whether to continue to require a synthetic liner cap with a 3-foot thickness of growth media on top of the liner (as required in the Reclamation Plan and RCE) or to accept a soil cover of a specified thickness without a synthetic liner as being equally effective to a lined cap in minimizing meteoric water infiltration into the pad.

**Phoenix Tailings Storage Facility (TSF):** The historic Fortitude TSF consisted of two basins separated by an east-west earthen embankment. The north basin was constructed first to contain tailings from the historic copper milling process until it was completely filled in 1970. The southern basin was constructed in 1972, to store copper tailings and gold tailings from the more recent gold mining and milling operations. Neither impoundment was constructed with an engineered liner.

A Major Modification approved by the Division on 17 January 2001, authorized the construction of a new, geosynthetic-lined TSF over the existing northern copper tailings basin to be built in two stages (Stage 1 and Stage 2). A Minor Modification (approved by the Division in October 2004) further refined the engineering designs for the TSF (to be referred to as the Phoenix TSF) and increased design capacity from 90 million to 170 million tons of tailings with five additional construction stages (Stage 3 through Stage 7). A Minor Modification approved by the Division in October 2013, increased the TSF design capacity further to 300 million tons of tailings with four additional construction stages (Stage 8 through Stage 11).

A Minor Modification approved by the Division on 28 March 2016, authorized modification to the Phoenix TSF north embankment to remove the geomembrane on the upstream slope and change the construction technique to centerline. The supernatant pool would be located toward the center of the impoundment. Additional tailings deposition spigots were installed along the north embankment, and decant return water pumping system would be located on floats within the impoundment.

In July 2017, the Division approved the submittal of annual records of construction of the Phoenix TSF by the Permittee; as of March 2018, the Phoenix TSF is approved as constructed though Stage 6.

The Phoenix TSF occupies an 834-acre footprint and has a maximum permitted design embankment height of 5,035 feet above mean sea level (amsl), measured vertically from the upper surface of the geosynthetic liner. Refer to the subheading ***Tailings Slurry Distribution*** for details regarding the discharge of tailings slurry into the TSF.

To construct the Phoenix TSF, the historic copper tailings and alluvium were stripped of vegetation, scarified, moisture conditioned, graded, and compacted for use as liner bedding for the geosynthetic liner. Because of its elastic properties, 80-mil linear LLDPE liner was initially selected for placement on the embankment basin and upstream side of the embankment in the area of the supernatant pool through the Stage 7 construction.

Following the completion of Stage 2 construction in 2006, the Permittee opted to use 80-mil HDPE liner in place of the LLDPE liner, for Stage 3 through 7 basin and upstream embankment raises due to the higher shear strength exhibited by HDPE. This change in geosynthetic liner material was approved as an EDC on 25 April 2007. To tie the new HDPE liner to the existing LLDPE liner, GCL was used to span the Stage 2-to-Stage 3 abutment and extrusion welds were used to attach the new HDPE liner and an overlying six-foot wide HDPE rub sheet to the existing LLDPE liner.

The geosynthetic layer is covered with a minimum 18-inch cover of locally borrowed alluvial silty sand and gravel to protect the synthetic liner and to provide relief for hydraulic head and promote solution collection and flow into the underdrain system. Refer to the subheading ***TSF Underdrain System*** for additional details

The TSF west, south, and east perimeter embankments were constructed with non-PAG mine waste. In the area of the supernatant pool, through the Stage 7 construction, and for the perimeter embankments, through Stage 2 construction, LLDPE liner was placed on the upstream face of the embankment, which utilized downstream construction.

Stages 3 through 7 of the perimeter embankment and outside the supernatant pool area are or will be constructed using centerline embankment construction methods. The embankment crest for Stages 1 and 2 was constructed with a 30 foot width. Because of the Permittee's concerns with moving heavy construction equipment on the embankments, the embankment crest widths for Stages 3 through 6 were increased to 100 feet and the final Stage 7 embankment crest width was increased to 50 feet. With the exception of the 5-foot lift for Stage 5, each stage is approximately 25 feet high. Borrowed alluvium is authorized for use as embankment structural fill and upstream filter fill for all future construction provided it meets original design report technical specifications.

**TSF Underdrain System:** The TSF Underdrain System is comprised of 6-inch diameter perforated CPE pipe placed in a dendritic pattern on 300-foot spacing throughout the impoundment basin. Within the supernatant pool area, the collection pipe spacing is reduced to 150 feet to further minimize potential hydraulic head on the liner. Between stages of impoundment construction, each perforated collector pipe transitions to a solid pipe, which is passed through an upgradient stage separation berm and capped. The upgradient collector pipe end-cap locations are surveyed to aid future excavation prior to the next stage of impoundment expansion. The 6-inch diameter collector pipes slope at a minimum one-percent grade and connect to 12-inch diameter CPE header pipelines, placed on approximately 2,400 foot spacing in the basin or along the upgradient embankment toe.

Based on the TSF design, spigotted tailings slurry will create a supernatant pool in the southeast corner of the impoundment. In an effort to accommodate higher than anticipated flow volume from this area of the underdrain system, an 18-inch diameter header pipeline was placed beneath the supernatant pool.

All header pipes report to a perforated 18-inch diameter standard dimension ratio (SDR)-17 HDPE toe drain pipe located on the upgradient edge of the embankment beneath the supernatant pool area. The toe drain transmits collected underdrain solution by gravity beneath the toe of the embankment via three separate 18-inch diameter SDR-17 HDPE underdrain outlet pipes. Secondary containment for each underdrain outlet pipe is provided by a 24-inch diameter SDR-32.5 HDPE underdrain outlet containment pipe. The outlet pipe is placed in a trench and encased in an 8-inch thick (minimum) layer of concrete where it passes under the embankment.

The three underdrain solution outlet pipes and the decant solution outlet pipe continue with pipe-in-pipe containment outside the impoundment in a backfilled trench. All pipes report solution by gravity to the Phoenix Mine TSF Reclaim Pond. Refer to the subheading **TSF Reclaim Pond** for additional details.

**Tailings Slurry Distribution:** Tailing slurry is conveyed by the Tailings Slurry Pipeline (TSP). The TSP conveyed the slurry via gravity till Stage 7 of the TSF, and after will be pumped from the Phoenix Mill through a 24-inch SDR-11 HDPE pipe to the TSF. Once the slurry reaches the TSF the pipeline splits and follows the crest of the TSF. Spigots are installed on the tailings distribution line every 150 feet. The tails are deposited with 6-inch slotted HDPE lines (Division approved 5 June 2017) on the north embankment and 6-inch HDPE lines for the remainder of the TFS, to manage the supernatant pool in the center of the facility.

The original pipeline from the mill to the TSF was constructed of Tite-Liner® pipe but was replaced in two main sections with HDPE. The first section was replaced in 2007 for improve the construction of future embankment lifts. The remaining section was replaced after a failure of the TSP on 26 February 2008 resulting in the

release of approximately 49,000 gal of tailings slurry. The pipeline was quickly repaired, however, further investigation revealed the presence of HDPE liner fragments within the Tite-Liner® pipe, indicating that the internal liner surface has started to shear (peel) off. If not addressed, the free fragments could potentially restrict slurry flow to a level requiring the complete shutdown of the Phoenix Mill.

Since the TSP alone does not meet the regulatory requirements of NAC445A.436 for a pipeline with secondary containment it is placed within a pipeline corridor with secondary containment provided by 80-mil HDPE lined ditch. For road crossings, the 24-inch diameter HDPE pipe is placed inside a 4-foot by 4-foot split-box concrete culvert of varying lengths, lined with 80-mil HDPE. A minimum of 12 inches of fill material covers the split-box culvert. Following completion of the permanent tailings line, the Permittee decommissioned the temporary line and removed all associated piping.

From the Phoenix Mill to the first road crossing, a distance of 178 feet, the pipeline is contained within an 80-mil textured HDPE-lined barrier rail, a pre-cast concrete structure, with a 24-inch base width, 10-inch top width and 32-inch height. Typical length of the barrier rail section is about 12 feet. The textured HDPE is attached to the barrier rail with a stainless steel batten bolted to the concrete with an anchor bolt. A layer of neoprene protects the HDPE liner.

The road crossing right-of-way utilizes a 56-feet long, HDPE lined, split-box culvert before it transitions back to the lined barrier rail system. The TSP continues for a distance of 186 feet, to a second road crossing, with a split box culvert length of 136 feet. From the second road crossing, the TSP enters a 2-foot deep earthen ditch, lined with 80-mil textured HDPE.

The ditch has a trapezoidal cross section, with a nominal base width of 5 feet, top width of 13 feet and a depth of 2 feet. The HDPE is placed on a prepared subgrade and anchored into a key trench covered with structural fill. The tailings pipeline continues in the lined ditch for a distance of approximately 620 feet before it enters a 36-inch diameter HDPE culvert, 180 feet in length. The TSP continues for a distance of approximately 170 feet before it discharges into the Phoenix TSF.

**TSF Reclaim Pond:** The TSF Reclaim Pond measures approximately 400 feet by 500 feet at the crest and is 16 feet deep. The pond is constructed with 3H:1V side slopes and the cumulative maximum pond volume is approximately 16,400,000 gal. The volume with a 2-foot freeboard is approximately 13,400,000 gal, which is adequate to contain the 9,000,000 gal operating volume plus the inputs from the 100-year, 24-hour storm event on the pond and ditch liners and the underdrain water reporting from the impoundment due to a 48-hour power outage.

The Reclaim Pond is constructed with 60-mil HDPE primary and secondary liners, with a layer of geonet placed between the liners that reports to a 2,000 gal sand-and-gravel filled leak collection sump. The sump is equipped with an automatic

evacuation pump installed in the 10-inch diameter riser pipe. Reclaim solution is returned to the Phoenix Mill via the Reclaim Solution Return Pipeline (RSRP) which shares a common pipeline corridor with the TSP. Refer to the subheading ***Tailings Slurry Distribution*** for corridor design details.

The Permit contains specific limits for the areal extent and depth of the impoundment supernatant pool. The Permit also contains specific limits on the minimum distance the supernatant pool may encroach upon an impoundment embankment to be expanded by centerline construction methods. Construction of the next impoundment embankment Stage is triggered by design limits and the minimum depth of the supernatant pool at the upgradient embankment edge and the available supernatant pool freeboard.

***Philadelphia Canyon, Box Canyon, Butte Canyon, and Iron Canyon Stormwater Management:*** Monitoring and reporting for certain existing stormwater management, monitoring, control, conveyance, and containment structures located along drainages on the northeast and east sides of the Phoenix Mine development area were incorporated into the Permit with the October 2004 Minor Modification. The purpose is to more directly monitor and evaluate the effects of the mining activity, particularly as it relates to WRDF expansion and concurrent reclamation activities associated with the Phoenix Mine development, on water quality downgradient from historic waste rock dumps and small-scale mining operations.

***Philadelphia Canyon Stormwater Management:*** The stormwater collection system in Philadelphia Canyon consists of storm/surface water retention structures, and associated piping, pumps, and valves. An HDPE-lined and leak-detected pond (the Copper Canyon Event Pond or CCEP) previously associated with the Philadelphia Canyon stormwater collection system was removed in 2013.

The purpose of the Philadelphia Canyon collection system is to collect and convey low pH and high metals stormwater runoff and seepage from the pre-regulatory Philadelphia Canyon Copper Dump Leach. The impacted water is captured by retention structures C-6 and C-7 and seepage collection sumps C-4 and C-5, which were originally designed and constructed to collect copper leach solution runoff from the copper leach dumps historically operated in this canyon. Additionally, a cutoff trench is constructed at the toe of the historic facility to collect and convey low-quality emergent groundwater flow and is designed to continue collection once the Phoenix Project Philadelphia Canyon WRDF is constructed over the historic copper dump leach.

The C-4 seepage collection sump is constructed with a GCL-lined cut-off trench and basin to the same design as that described below for Iron Canyon. The C-5 sump is buttressed to protect it from damage as the waste rock facility advanced over the crest.

An EDC approved by the Division on 13 September 2017 authorized the re-routing of the C4/C5 line and the installation of isolation sample ports with lined containment areas on the Box Canyon and C4/C5 lines. An additional EDC approved by the Division on 8 February 2018 authorized the bypassing of the Box Canyon Tank.

**Box Canyon Waste Rock Disposal Facility Seep Mitigation:** Seepage of a small quantity of low pH and poor quality water was discovered at the toe of the historic Box Canyon (BC) WRDF in early 2006, following an intense precipitation event. Flow was estimated at approximately 2 gpm. An EDC approved by the Division in September 2006, authorized the construction of a solution collection, conveyance, and storage system at the toe of the BC WRDF.

The BC WRDF seepage collection system collects and manage a small volume of low pH/low quality water discovered at the toe of the BC WRDF located at the head of the canyon. The system is comprised of a catch basin and cut-off berm constructed on the native slope and lined with a layer of minimum 60-mil HDPE liner. The lined base of the catch basin is sloped at a minimum 1 percent grade toward a slotted, 4-inch diameter, HDPE riser pipe that collects and transfers solution into a minimum 4-inch diameter HDPE conveyance pipeline with a pipe-in-pipe containment design.

Collected solution flows to the Reona Event Ponds and is quantified and analyzed in accordance with the Permit and incorporated into the Phoenix Mill circuit from the Reona Event Pond.

**Iron Canyon and Butte Canyon Stormwater Management:** The purpose of the Iron and Butte Canyon collection system is to collect and convey stormwater which may have been impacted by contact with the pre-regulatory and post-regulatory WRDFs located at the heads of the two canyons. The collection system for these canyons consists of collection structures, surge tanks, final storage/surge ponds, and pipe-in-pipe systems.

The Iron Canyon Collection System (ICCS) is subdivided into North Iron Canyon (NIC) and South Iron Canyon (SIC). The collected water from each is conveyed to the stainless steel Iron Canyon Surge Tank (ICST). The surge tank is equipped with an overflow pipe-in-pipe system. The system consists of buried HDPE pipe-in-pipe (8-inch diameter within 12-inch diameter) with observation ports extending from the tank to the Iron Canyon Surge Pond (ICSP).

**North Iron Canyon Collection System:** In North Iron Canyon, water is captured by two separate structures: Iron Canyon North (IC-N) and the "Gator Pond." IC-N is a 60-mil HDPE-lined collection basin off the toe of the historic Northeast Extension WRDF. The captured flow is conveyed via surface pipeline to the Gator Pond and then conveyed (by gravity) through a buried pipeline with secondary containment (pipe-in-pipe) to the ICST. A YeloMine<sup>®</sup> pipeline, placed directly on

the ground surface, serves as a back-up to the buried pipeline. This older version of YeloMine<sup>®</sup> pipeline utilizes "O"-rings and machined couplings in place of the welded and bolted flanges commonly used with HDPE pipe.

**South Iron Canyon Collection System (SCCS):** SCCS consists of a middle, south, and west reach. Temporary plywood and HDPE-lined collection structures with YeloMine<sup>®</sup> conveyance piping were once located in the middle and south reaches to collect impacted stormwater runoff and residual drain down off the toes of a historic WRDF.

The present-day SCCS WRDF is constructed over the historic WRDF, precluding the need to collect impacted stormwater runoff from the WRDF, and thus the retention of the temporary systems.

Low-quality groundwater flow observed in both the middle and south reaches resulted in the construction of a cut-off trench immediately below the confluence of the middle and south reaches (IC-CTMS) to collect flows in advance of the SCCS WRDF and beneath the SIC WRDF. The water collected in IC-CTMS is conveyed via buried pipeline with secondary containment (pipe-in-pipe) to the ICST.

The head of the west reach does not contain a WRDF. Surface flow captured by the IC-W concrete basin is discharged to the channel and later captured in the SIC. IC-W is also maintained currently as a big game guzzler.

The combined flow from South and North Iron Canyon is conveyed by gravity to the Iron Canyon Surge Pond (ICSP) via buried pipeline with secondary containment (pipe-in-pipe). The buried pipeline is fitted with observation ports to allow for inspection of the pipe.

An EDC approved by the Division in November 2006, authorized construction of upgrades to the collection systems within Iron Canyon. The upgrades were necessary to address concerns following a high-flow event in Iron Canyon and issues of future solution collection and conveyance following the advance of the WRF in the canyon.

The upgrades in Iron Canyon included a cut-off trench and collection basin constructed with GCL that collect solution flow from the Middle and South reaches of the canyon. The cut-off trench and basin are covered with a layer of drainage gravel to protect the solution collection piping. The collected solution is conveyed through a buried 6-inch diameter HDPE pipeline, which runs inside a 10-inch diameter HDPE pipeline that provides secondary containment, to the re-lined and upgraded SCCS for quantification and sampling of the combined in-flow.

Storm events during the spring of 2009 resulted in erosion and stability issues within South Iron Canyon and in particular, the SCCS. To address these concerns,

The Permittee re-routed the pipeline associated with the SCCS. Initially, piping from the Iron Canyon Collection System (ICCS) emptied into the SCCS pond and was then piped to the ICSP.

An EDC approved by the Division in July 2009 and completed in September 2009, re-plumbed the pipeline to the south of the SCCS, bypassing the structure completely, and then tie-in directly with the ICCS. The re-routed pipeline is constructed within secondary containment (pipe-in-pipe configuration), with 6-inch diameter, SDR-17 HDPE inside a 12-inch diameter, SDR-17 HDPE pipe. The pipeline is buried to allow continued access up South Iron Canyon.

The rerouting of the pipeline eliminated monitoring requirements for the SCCS and the Iron Canyon Middle and south Cut-off Trench (IC-CTMS). Water collected in the ICCS is monitored in the ICSP.

**Butte Canyon Stormwater Collection System:** A buried cut-off trench collects residual draindown from the toe of the historic Butte Canyon WRDF. The collected draindown is directed via pipe-in-pipe to the ICSP. The buried pipeline is fitted with observation ports to allow for inspection of the containment pipe. Surface stormwater from the Butte Canyon WRDF is directed toward a sediment pond for retention and discharge.

**Iron Canyon Surge Pond:** The ICSP is located at the mouth of Galena Canyon and serves as the outfall of the Butte and Iron Canyon collection systems. The pond is constructed with a single 60-mil HDPE liner. Water accumulated in the ICSP is evaporated (during summer months) or trucked to the Phoenix Mine Site and incorporated into the fluid management system. ICSP capacity (including 2 feet of freeboard) is approximately 6.4 million gallons.

If water is observed within the secondary containment pipes of the collection systems, more frequent monitoring will occur in an effort to isolate any potential leakage from the primary pipe, and repairs completed accordingly. In the event of unusual or emergency conditions, excess water collected in the ICSP is transported by truck to the Phoenix Mill for incorporation into the fluid management system.

In the period from second quarter 2017 to first quarter 2018, between 270,000 to 1,140,000 gallons of seepage water reported to the ICSP and the general quality of the water was pH of 3.0 S.U., total dissolved solids (TDS) exceeding 50,000 mg/L, and additional elevated metals. The water captured in the ICSP is conveyed as needed via water truck to the Phoenix Copper Leach Facility or TSF as approved by the Division.

**North Fortitude Waste Rock Facility Seep Mitigation:** The purpose of the North Fortitude Rock Seep collection system is to collect and convey water seeping from the toe of the North Fortitude (NF) WRDF. The NF WRDF collection system

consists of a cut-off intercept trench, surge tanks, pipe-in-pipe water conveyance system, and associated piping, and valves.

Seepage of low pH and poor quality solution emanating from a portion of the southern toe of the NF WRDF was first noted in June 2005. Flow emanates from two locations along a 300-foot width of the toe and ultimately migrates to a natural drainage and into the Fortitude Pit along the north pit wall. The seepage rate averages approximately 2 gpm except during storm events when the solution volume is significantly increased by meteoric contributions reporting to the NF WRDF and the natural drainage watershed area. Solution at the seep exhibits an average pH of 3 S.U. and the Fortitude Pit Lake exhibits an average pH of 4 S.U. or less. Solution at both locations also reports Division Profile I reference value exceedances for numerous constituents.

At the direction of the Division, a work plan for the NF WRDF seep mitigation was submitted for review in mid-September 2005, and formalized as an EDC in mid-November 2005, following construction of a collection system. Concern was expressed about several differences between the work plan design and the submitted, "as-constructed", EDC designs. Most important were burial of a single-wall pipeline to convey solution and inadequate thickness of protective cover for the pipeline at vehicle crossings. Design issues were resolved with a supplemental proposal received in May 2006, and approved by the Division in June 2006.

The approved EDC design includes construction of a cut-off trench along the toe of the NF WRDF adjacent to the seeps. The trench is constructed with GCL and a 6-inch diameter perforated HDPE pipe serves to collect solution reporting to the cut-off trench. Collected solution flows by gravity from the cut-off trench to a 6-inch diameter solid HDPE conveyance pipeline. A 10-inch diameter solid HDPE pipeline provides secondary containment for the conveyance pipeline.

The conveyance pipeline, approximately 1,350 feet long, is located in an open ditch and conveys solution to a pair of 12,000-gal polyethylene storage tanks. Total solution collected is quantified and analyzed in accordance with the Permit. In addition, the Permit requires the tanks be evacuated when a maximum 70 percent of capacity (approximately 17,000 gal) is attained. Solution is conveyed by tanker truck for addition to the Phoenix Mill solution inventory.

Phase IV of the Greater Phoenix Major Modification will not impact the NF WRDF seepage collection system, but the proposed life-of-mine pit expansion of the Fortitude/Phoenix Pit will consume the NF WRDF where the seeps are located, effectively removing the source of the seepage. The pit design and final reclamation of the remaining NF WRDF should eliminate the potential for future seepage in this area with the life-of-mine pit.

A Division-approved proposal in September 2016, moved the NF Seep Collection Tank to the northwest near Well PPW-1. The move connected the NF Seep

Collection Tank to the contact water line by a buried dual walled pipe (4-inch by 8-inch). The Tank is equipped with a telemetry system to inform personnel when the tanks are at 80% capacity.

In the period from second quarter 2017 to first quarter 2018, between 55,000 to 295,000 gallons of seepage water reported to the mill from the NF Seep Collection System and the general quality of the water was pH of 3.0, TDS exceeding 141,000 mg/L, and additional elevated metals. As mentioned above this water is transported to the mill via a dual walled pipe.

**Fortitude Pit Dewatering System:** When a pit lake was expressed in the Fortitude Pit, four pit dewatering wells (PPW-1 through PPW-4) would pump water via single-walled HDPE pipeline to either the Dewatering Water Storage Pond (DWSP) or the Dust Suppression Water Storage Pond (DSSP). The DSSP was removed in 2011 since no water is in Fortitude Pit. Refer to the subheading **Dewatering Water Storage Pond (DWSP)** for design details.

**Dewatering Water Storage Pond (DWSP):** The double-lined and leak detected DWSP measures approximately 200 feet by 140 feet in plan dimension and is a maximum 17 feet deep with 3H:1V side slopes. The pond is capable of containing draindown from the conveyance pipeline and the 100-year, 24-hour storm event with an operating capacity of approximately 1 million gallons and a 1.5-foot freeboard below the emergency overflow spillway. The spillway, single-lined with 80-mil textured HDPE, is located at the northwest corner of the pond, has a 15-foot wide base, and can accommodate maximum flow of approximately 23,000 gpm with 1 foot of freeboard. The spillway flow will report to the existing stormwater pond.

The DWSP liner system consists of a 6-inch prepared subgrade (92 percent maximum dry density per ASTM Method D1557), a 60-mil smooth HDPE secondary liner, a layer of geonet for leakage transmission, and an 80-mil textured HDPE primary liner. The geonet reports to a drain rock-filled sump constructed between the secondary and primary liners. Residence time for treated water stored in DWSP is limited to 20 days. The potential for any treated water to approach this limit is unlikely, since the treated water is consumed within days following its discharge to the pond.

The dewatering water conveyance pipeline discharges to the pond via a 50-foot wide HDPE apron constructed into the liner system on the west sideslope of the pond. The secondary containment pipeline terminates at the inlet edge of the apron to allow quantification of any pipeline leakage. Dewatering water discharges onto the apron and into the pond through an approximately 45-foot long section of the primary conveyance pipeline that has been drilled with 2-inch diameter holes located on 6-inch centers along the pipeline spring line. The discharge pipeline can convey solution at up to 1,200 gpm.

Dewatering water is conveyed to the Phoenix Mill for use as make-up water through a 10-inch diameter stainless steel intake riser. The riser is located in the eastern half of the pond and penetrates the LCRS sump through an 11-foot long, by 4-foot wide, by 4-foot thick concrete ballast block constructed within the sump. The primary liner of the pond is attached to the ballast block with an extrusion weld to a circular HDPE imbed in the concrete. A pipe boot fabricated around the riser is extrusion welded onto the top of the primary liner. The riser pipe exits the sump thorough a flanged connection cast into the concrete ballast to convey fluid by gravity to the Phoenix Mill. Both the 10-inch diameter SDR 17 HDPE primary pipeline and the 14-inch diameter SDR 17 HDPE secondary pipeline are connected to the flange within the concrete ballast and booted to the sump secondary liner.

The pond outlet pipeline can convey fluid to the Phoenix Mill at up to 2,000 gpm. The conveyance pipeline and secondary containment run both above and below ground for approximately 1,750 feet to the Phoenix Mill with a vertical drop of about 150 feet. The dewatering water reports to the existing Treated Reclaim Water Tank (270-TK-091), which has a capacity of approximately 75,000 gallons and provides make-up water storage for the mill. Any fluid within the conveyance pipeline secondary containment reports to the mill secondary containment system via a 4-inch diameter discharge pipe.

***Petroleum-Contaminated Soil (PCS) Management Plan.*** A PCS Management Plan was approved by the Division as an EDC in August 2013, authorizing on-site disposal of non-hazardous PCS at a specified location on the Natomas Waste Rock Facility (WRF). Prior to management under the plan, hazardous waste determinations must be performed to demonstrate that the PCS is not hazardous waste. Hazardous waste must be managed and disposed off-site in accordance with applicable regulations. On-site disposal of PCS is also contingent on the results of periodic screening analyses, which must show that the PCS does not exceed screening levels established via risk assessment for various organic constituents. Otherwise, the PCS must be properly disposed off-site.

PCS may be stored on the approved PCS temporary holding pads while screening analyses are performed, or it may be provisionally placed at the approved disposal location on the Natomas WRF, provided that it will be removed and properly disposed elsewhere in accordance with approved contingency plans if it exceeds screening levels during subsequent screening analyses. Various time limits and other stipulations in the plan and permit apply to temporary storage, provisional placement, and contingency plans.

### C. Receiving Water Characteristics

***Surface Water:*** No surface water enters or exits the Phoenix Project site except during storm events and spring runoff.

**Ground Water:** Groundwater flows in the Phoenix Project area occur within bedrock units along high-angle and low-angle fracture sets and, to a lesser degree, along bedding planes. The structural fabric of the Phoenix Project area is dominated by high-angle normal faults, low-angle thrust faults and broad, open folds. Large-scale structural elements include the Copper Canyon, Virgin, and Plumas high-angle faults and the Golconda and DeWitt low-angle thrust faults.

Faults and other structural features in the Phoenix Project area can influence groundwater flow as hydraulic conduits or barriers. In general, faults in the Project area tend to impede groundwater flow across their strike, but transmit flow along the strike; structural compartmentalization in the Project area influences groundwater flow direction and gradient.

The direction and gradient of groundwater flow in the bedrock portion of the Project area is controlled by these structural elements and by topography. Groundwater recharge at higher elevations in the Battle Mountain Range results in flow toward the range front and alluvial fans. Groundwater flow is generally toward the south in the Copper Canyon drainage, with relatively shallow gradients of flow to the southeast and southwest in alluvial deposits downgradient of Copper Canyon. Groundwater flow is to the east along the eastern margin of the Phoenix Project area with relatively steep gradients across north-south oriented structural zones.

Groundwater flow in alluvial deposits also occurs in the major drainages, and within alluvial fan deposits along the southern and eastern flanks of the Battle Mountain Range. The depth to ground water beneath the proposed project facilities varies from less than 100 feet below ground surface (bgs) to 1,000 feet bgs. In the vicinity of the heap leach facility, the depth varies from about 50 feet to 150 feet bgs. In the area of the tailings impoundment, the depth varies from about 60 feet to 250 feet bgs.

Groundwater quality data from past monitoring indicates water of generally good quality with the Division Profile I reference values being met. However, water quality from monitoring and pumping wells located downgradient of the historic copper-gold tailings impoundment typically shows elevated levels of chloride, magnesium, manganese, sulfate, and total dissolved solids. The elevated constituent levels are due to seepage from the historic and inactive portion of the tailings impoundment, which is associated primarily with the distribution of tails from historic copper and gold processing and occurred prior to the Phoenix Mine development and construction of the lined Phoenix TSF.

#### ***Pump Back System for TSF Chloride Plume***

The pump back system conveyed the impacted groundwater ("chloride plume") to the surface of the gold tailings impoundment that was in operation since the mid 90's. Deposition to the gold tailings impoundment ceased in late 2003, when alluvial cover was placed on the gold tailings to control fugitive dust and support a

vegetative cover reducing the infiltration of water through the tailings reducing the volume of impacted groundwater.

Since the gold tailings was covered, the impacted groundwater has been routed to the Phoenix Mill or Reona Gold HLP to be used in process as make up water. As of November 2015 approximately 45% of the mass chloride has been removed by the pumping wells; the predicted total percent of chloride removed is 80% by 2043 and 91% by the end of 2063. In the last year (July 2017 to July 2018) the volume of water pumped back varied from 800 gpm to 1,500 gpm with a chloride concentration that varied from 416 mg/L to 890 mg/L. The groundwater chloride plume continues to be monitored under the Permit.

**D. Procedures for Public Comment**

The Notice of the Division's intent to issue a renewal permit authorizing the facility to construct, operate and close, subject to the conditions within the permit, is being sent to the **Battle Mountain Bugle** for publication. The Notice is being mailed to interested persons on the Bureau of Mining Regulation and Reclamation mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date of public notice. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.403 through NAC 445A.406.

**E. Proposed Determination**

The Division has made the tentative determination to issue the Permit modification.

**F. Proposed Limitations, Schedule of Compliance, Monitoring, Special Conditions**

See Section I of the Permit.

#### **G. Rationale for Permit Requirements**

The facility is located in an area where annual evaporation is greater than annual precipitation. Therefore, the facility fluid management system must operate under a standard of performance which authorizes no discharge(s) except for those accumulations resulting from a storm event beyond that required by design for containment.

The primary method for identification of escaping process solution will be placed on required routine monitoring of leak detection systems as well as routinely sampling downgradient monitoring wells. Specific monitoring requirements can be found in the Permit.

The facility fluid management system has been designed to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval pursuant to NAC 445A.433. Groundwater quality beneath the site has been historically monitored and additional water quality monitoring will be sited as may be necessary, in accordance with the Permit and routine operational review as the Phoenix Mine is developed.

#### **H. Federal Migratory Bird Treaty Act**

Under the Federal Migratory Bird Treaty Act, 16 U.S. Code 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 Code of Federal Regulations 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service is authorized to enforce the prevention of migratory bird mortalities at ponds and tailings impoundments. Compliance with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g., by covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

Prepared by: Rob Kuczynski, P.E.

Date: 31 March 2016

Revision 00: 2016 Renewal, effective 15 April 2016,

Prepared by: Natasha Zittel

Date: 30 July 2018

Revision 01: EDC Reverse Osmosis Water Treatment Circuit, 9 May 2017, Greater Phoenix Major Modification

STATE OF NEVADA  
Department of Conservation and Natural Resources  
Division of Environmental Protection  
Bureau of Mining Regulation and Reclamation  
**Water Pollution Control Permit**

Permittee: **Newmont USA Limited  
Fortitude/Reona (Phoenix) Project  
PO Box 1657  
Battle Mountain, Nevada 89820-1657**

Permit Number: **NEV0087061**  
Review Type/Year/Revision: **Renewal 2016, Revision 01**

Pursuant to Nevada Revised Statutes (NRS) 445A.300 through 445A.730, inclusive, and regulations promulgated thereunder by the State Environmental Commission and implemented by the Division of Environmental Protection (the Division), this Permit authorizes the Permittee to construct, operate, and close the **Fortitude/Reona (Phoenix) Project**, in accordance with the limitations, requirements and other conditions set forth in this Permit. The Permittee is authorized to process up to **20,000,000 tons** of ore per year.

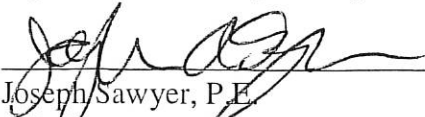
The facility is located in Lander County, within Sections 15, 16, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, and 36 Township 31 North (T31N), Range 43 East (R43E); and Sections 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, and 22, T30N, R43E; Mount Diablo Baseline and Meridian, approximately 13 miles south of the town of Battle Mountain, Nevada.

The Permittee must comply with all terms and conditions of this Permit and all applicable statutes and regulations.

This Permit is based on the assumption that the information submitted in the application of 24 September 1987, as modified by subsequent approved amendments, is accurate and that the facility has been constructed and is being operated as specified in the application. The Permittee must inform the Division of any deviation from or changes in the information in the application, which may affect the ability of the Permittee to comply with applicable regulations or Permit conditions.

This Permit is effective as of **14 August 2018**, and shall remain in effect until **1 February 2021** unless modified, suspended, or revoked.

Signed this 30 day of **July 2018**.

  
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Joseph Sawyer, P.E.  
Chief, Bureau of Mining Regulation and Reclamation

I. Specific Facility Conditions and Limitations

A. In accordance with operating plans and facility design plans reviewed and approved by the Division the Permittee shall:

1. Construct, operate, and close the facility in accordance with those plans;
2. Contain within the fluid management system all process fluids including all meteoric waters which enter the system as a result of the 25-year, 24-hour storm event; and
3. Not release or discharge any process or non-process contaminants from the fluid management system.

B. Schedule of Compliance:

1. By 31 August 2018 and prior to the advancement of mining into any areas of the "Greater Phoenix Project" that have not been characterized or have been determined by the Division to require additional characterization, the Permittee shall provide the Division with an incremental mine and characterization plan for the period beginning with the effective date of the 2018 Major Modification and through the 2021 to 2025 Permit renewal cycle. The plan shall be approved by the Division prior to advancement of mining into these areas. The plan shall include:
  - a. A work plan and implementation schedule for the incremental mine expansion and sample characterization, including spatially representative borehole sampling locations within the incremental pit expansion through the 2021 Permit renewal;
  - b. A detailed geological map with cross-sections showing the extent of the pit shell, pit depth, and borehole sample locations for the incremental pit expansion projected through the 2021 Permit renewal;
  - c. Proposed characterization locations for representative ore and waste rock samples obtained from borehole locations within the incremental pit expansion. Analytical tests utilized for the characterization studies shall include Meteoric Water Mobility Procedure-Profile I (MWMP-Profile I) and Static Testing (Acid-Base Accounting (ABA));
  - d. A detailed sample selection plan and implementation schedule for the Kinetic Testing (humidity cell tests) of spatially representative ore and waste rock samples obtained from the borehole sample collection program in Part I.B.1.a.
  - e. A detailed sample selection plan and implementation schedule for the Kinetic Testing (humidity cell tests following ASTM D5744-07) of potential drainage blanket material using a Division-approved mine-impacted leachate solution (in place of the deionized reagent water specified in ASTM D5744-07) to simulate the future water-rock interaction that will occur in the drainage blanket. Samples shall be representative of the same formations (specifically samples GrPx-006 and GrPx-024) as detailed in the 8 February 2018 "Geochemical Evaluation of Waste Rock for Blanket Drain Construction at the Phoenix Mine", or screened inert alluvium, unless otherwise approved by the Division. These kinetic testing procedures must also incorporate appropriate methods to be applicable to the proposal to alternately drain and fill the Greater Phoenix pit lake annually.

2. Within 180 days after the effective date of this Permit (by 14 February 2019), the Permittee shall submit to the Division for review and approval a work plan and implementation schedule demonstrating the suitability and sustainability of the proposed Section 31 Area for future agriculture use. The plan shall include at a minimum: a discussion of necessary steps to obtain authorization to appropriate well water for the proposed activity, groundwater infiltration studies, growth media characterization, determination of available nutrients, potential for metal and metal salt attenuation, and site preparation work necessary for future agriculture use.
3. Within 180 days after the effective date of this Permit (by 14 February 2019), the Permittee shall submit to the Division a work plan and implementation schedule demonstrating a proof-of-concept for the treatment and use of treated pit lake water for alfalfa growth when applied at agronomic rates. The plan and schedule shall be designed to provide results to the Division with the Permit renewal application due 1 October 2020. The conceptual studies shall include but are not limited to:
  - a. Evaluation of the effectiveness of treatment methods for pH adjustment and metal removal from pit lake water;
  - b. Effect of blended, and non-blended treated pit lake water on alfalfa growth when applied at agronomic rates;
  - c. Determination of the amount and quality of any water that infiltrates beyond the root zone;
  - d. Effect of metal, non-metal, and salt uptake by the alfalfa;
  - e. Suitability and sustainability of the alfalfa cropping proposed for Section 31 and the determination of amendments and nutrients necessary for alfalfa growth; and
  - f. An independent third-party evaluation by a local, state, or federal agricultural or extension agency, demonstrating the suitability of the Section 31 alfalfa crop for consumption by livestock.
4. Within 120 days prior to the 1 February 2021 expiration date of this Permit (by 1 October 2020), the Permittee shall submit revised predictive models to assess:
  - a. Groundwater flow, to include regional analysis and transient hydrologic conditions near the Greater Phoenix pits due to alternating pumping and filling of the pit lakes;
  - b. Fate and transport of contaminants, to include migration of constituents through the subsurface in the vicinity of the Greater Phoenix project as well as any proposed measures to retard contaminant migration;
  - c. Pit-lake geochemistry, to include the geochemical impacts of alternating periods of pumping and filling of the pit lakes using methods appropriate for the level of complexity in the proposed plan; and
  - d. Ecological risk, to include potential risk to human, terrestrial, and avian receptors based on predicted water quality without the use of palatability as an adjustment factor.

These predictive models must adequately address all previous Division comments as described in correspondence dated 7 September 2016, 24 October 2016, 28 November 2016, 4 January 2017, 26 September 2017, and 12 February 2018.

5. Within 120 days prior to the 1 February 2021 expiration date of this Permit (by 1 October 2020), the Permittee shall submit to the Division a complete, Permit Renewal Application for review and approval. The application shall be a “stand alone” document and include all relevant plan updates, reports, studies, predictive pit lake and hydrological models, alfalfa proof-of-concept report, and any other documentation in support of the 2021 Permit Renewal.
6. By 28 December of each year, the Permittee shall submit an abandonment and replacement schedule for the wells impacted by the Pit or Waste Rock Facilities expansion for the following year. This schedule shall allow the replacement wells to be installed and monitored a minimum of one quarter before the original well is abandoned. The schedule shall be approved by the Division before any proposed wells are abandoned.

The schedule of compliance items above are not considered completed until approved in writing by the Division.

- C. The fluid management system and facilities covered by this Permit consists of the following process components:

Phoenix Gold Leach Process Components

1. The high-density polyethylene (HDPE)-lined Reona Gold Heap Leach Pad Phase 1 through Phase 4, the leak detected solution collection and recycle sumps, and the Reona synthetic-lined Event Pond 1 (EP-1) with leak collection and recovery system;
2. The Reona Gold Heap Leach Pad underdrain solution collection system and HDPE-lined solution collection ditches;
3. The Reona Gold Heap Leach Pad individual leach pad cell leak collection and recovery systems; and
4. The Reona Gold Heap Leach Pad and process recovery facility including, but not limited to, all ponds, tanks, basins, sumps, pumps, and piping necessary to interconnect the process components.

Phoenix Mill Process Components

5. The Coarse Ore Stockpile Pad lined with geosynthetic clay layer (GCL), synthetic-lined Outlet Sump, Outlet pipes, concrete corridor slab, and associated containment, pumps, sumps, and pipelines;
6. The Phoenix Mill building including, but not limited to, all tanks, basins, sumps, pumps, and pipelines necessary to interconnect the components within the building;
7. The historic unlined tailings impoundment divided into a northern (Copper Operations) portion, a southern (Gold Operations) portion, and the HDPE-lined Phoenix Mine Tailings Impoundment constructed over a portion of the northern impoundment, the double HDPE-lined and leak detected Phoenix Mine Tailings Impoundment reclaim pond, and all sumps, pumps, pipelines, and ditches necessary to convey and control

process fluids and process materials to, within, and from the Phoenix Mine Tailings Impoundment; and

8. Transfer pipes, valves, and pumps used in conveyance, control or detection of process fluids between components.

Phoenix Copper Leach Project Process Components

9. The HDPE-lined Reona Copper Heap Leach Pad Phases 1A and 1B, the leak detected solution collection and recycle sumps, and the Reona Copper Heap Leach HDPE-lined Pregnant Leach Solution (PLS)/Event Pond with leak collection and recovery system;
10. The Reona Copper Heap Leach Pad underdrain solution collection system and HDPE-lined solution collection ditches;
11. The Reona Copper Heap Leach Pad individual leach pad cell leakage collection and recovery systems;
12. The HDPE-lined Phoenix Copper Heap Leach Pad Phases 1, 2, and 3, the leak detected solution collection and recycle sumps, and the Phoenix Copper Heap Leach HDPE-lined PLS/Sediment, PLS, Phase 1, and Phase 2 Event Ponds with leakage collection and recovery systems;
13. The Phoenix Copper Heap Leach Pad underdrain solution collection system and HDPE-lined solution collection ditches;
14. The Phoenix Copper Heap Leach Pad individual leach pad cell leakage collection and recovery systems; and
15. The SX-EW copper recovery facility including, but not limited to, all ponds, tanks, basins, sumps, pumps, and piping necessary to interconnect the process components.

Other Solution Sources

16. The Run-of-Mine (ROM) Ore Stockpile Pad with low hydraulic conductivity soil layer (LHCSL), the double HDPE-lined and leak detected ROM Ore Stockpile Collection Pond and ROM Phase 3 Stormwater Runoff Pond, and associated pipelines, pumps, and sumps;
17. The Philadelphia Canyon and Box Canyon waste rock seep solution and stormwater collection and conveyance systems, including but not limited to, groundwater monitoring wells, piezometer wells, pumping wells, retention structures, and all associated sumps, pumps, pipelines, tanks, ditches, and valves to contain, convey and control solution within the system;
18. The Iron Canyon and Butte Canyon waste rock seep solution and stormwater collection and conveyance systems, including but not limited to, groundwater monitoring wells, piezometer wells, pumping wells, collection structures, the Iron Canyon Surge Tank and Emergency Overflow Pond, the single layer HDPE-lined Iron Canyon Surge Pond, and all associated sumps, pumps, pipelines, tanks, ditches, and valves to contain, convey and control solution within the system; and
19. The North Fortitude waste rock seep solution collection and conveyance system including, but not limited to, collection structures and all associated sumps, pumps,

pipelines, tanks, ditches, and valves necessary to convey and control solution within the system.

D. Monitoring Requirement:

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
<p>1. <u>Production and Chloride Plume Pumpback Wells</u></p> <p>PW-1, PW-2A, and PW-4;  CMW-5, CCPW-1, and CCPW-2</p>	<p>Profile I<sup>(2)</sup>;  Profile I<sup>(2)</sup>, water and collar elevation (feet AMSL)</p>	<p>Q1 &amp; Q3;  Q1 &amp; Q3 once constructed</p>
<p>2. <u>Groundwater Quality Monitoring Wells</u></p> <p>CM-7, CM-8, CM-9, CM-12, CM-20, CM-22, CM-23, CM-24, CM-26, CM-27, CM-28, CM-29, Phx-B, Phx-C<sup>(5)</sup>, Phx-D<sup>(25)</sup>, Phx-E2, Phx-F, Phx-G (formerly CP-26), Phx-H, Phx-I, Phx-L<sup>(5)</sup>, Phx-M<sup>(25)</sup>, Phx-O<sup>(25)</sup>, Phx-Q<sup>(5)</sup>, Phx-R, Phx-S, Phx-T, Phx-U, Phx-V, Phx-W, Phx-X, Phx-Y, Phx-Z, Phx-AA, Phx-CC, Phx-DD<sup>(26)</sup>, Phx-FF, Phx-GG, and Z-4</p>	<p>Profile I<sup>(2)</sup>, water and collar elevation (ft AMSL), field pH (SU), specific conductance (μS/cm), temperature (°F), and artesian flow (gpm) as applicable</p>	<p>Quarterly;</p>
<p>3. <u>Groundwater Piezometer Wells</u></p> <p>CM-19, CM-47, CM-48, CM-55, CP-33, CP-36A, CP-36B, CP-37, CP-38A, CP-38B, CP-39A, CP-39B, CM-50, CM-51, CP-6<sup>(25)</sup>, CP-10A<sup>(25)</sup>, CP-11, CP-17, CP-20, CP-21, CP-23, CP-24, CP-25B, CP-27A, CP-27B, CP-28A, CP-28B, CP-29, CP-30, CP-31, CP-32, CP-35, CP-40, CP-50A, and CP-50B</p>	<p>Water and collar elevation (feet AMSL)</p>	<p>Quarterly</p>

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
4. <u>Pit Lake Monitoring</u> Any Pit;  General Monitoring – each pit lake;  Water Column Monitoring <sup>(19)</sup> – each pit lake;  Surface Samples <sup>(21)</sup> – each pit lake;  Depth Samples <sup>(22)</sup> – each pit lake that is >25 feet deep or has an outflow to groundwater	Presence of Water <sup>(18)</sup> ;  Photograph, lake surface elevation (ft AMSL), maximum lake depth (ft), lake area (acres);  Continuous field temperature (°F) <sup>(20)</sup> and specific conductance (µS/cm) <sup>(20)</sup> with depth (ft);  Field pH (SU) <sup>(20)</sup> , field Eh (mV) <sup>(20)</sup> ; Profile III <sup>(23)</sup> ;  Field pH (SU) <sup>(20)</sup> , field Eh (mV) <sup>(20)</sup> , depth below surface;  Profile I <sup>(2)</sup> , depth below surface (ft)	Quarterly;  Monthly;  Monthly;  Monthly;  Quarterly;  Monthly
5. <u>Mined Materials – Waste Rock</u>  For all waste rock generated;  For each waste rock facility, pit backfill, or capping material location <sup>(10)</sup> ;  For each waste rock facility, pit backfill, or capping material location <sup>(11)</sup>	ANP/AGP <sup>(7)(8)</sup> ;  MWMP <sup>(6)</sup> -Profile I-R <sup>(3)</sup> and ANP/AGP <sup>(7)(8)</sup> , number of tons of material placed by placement location and material type, and average thickness of capping material placed, as applicable;  Humidity cell test <sup>(9)</sup>	1-in-every-10 blast holes;  Quarterly;  Annually one test per active facility
6. <u>Reona Gold HLP Spent Leach Ore</u> <sup>(27)</sup>	MWMP <sup>(6)</sup> -Profile I <sup>(2)</sup>	Quarterly <sup>(28)</sup>

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
<p>7. <u>Reona Heap Leach Pad Leak Detection Pipes</u></p> <p><i>Phases 1 &amp; 2:</i>  Cell 1 (PD-1), Cell 2 (PD-2), Cell 3 (PD-3), Cell 4 (PD-4), Cell 5 (PD-5), and Cell 6 (PD-6)</p> <p><i>Phase 3:</i>  Cell 7 (PD-7), Cell 8 (PD-8), and Cell 9 (PD-9)</p> <p><i>Phase 4:</i>  Cell 10 (PD-10)</p> <p><i>Phoenix Expansion:</i>  Cell 11 (PD-11), Cell 12 (PD-12), Cell 13 (PD-13), and Cell 14 (PD-14)</p>	Flow rate (gpd)	Weekly <sup>(1)</sup>
<p>8. <u>Reona Heap Leach Pad Solution Recycle Sump Leak Detection Pipes and Manhole Sumps</u></p> <p><i>Phases 1 and 2 Leak Detection Pipes:</i>  Cell 1 (PS-1), Cell 2 (PS-2), Cell 3 (PS-3), Cell 4 (PS-4), Cell 5 (PS-5), and Cell 6 (PS-6)</p> <p><i>Phase 3 Leak Detection Pipes:</i>  Cell 7 (PS-7), Cell 8 (PS-8), and Cell 9 (PS-9)</p> <p><i>Phase 4 Manhole Sumps:</i>  Cell 10 (PS-10), Cell 11 (PS-11), Cell 12 (PS-12), Cell 13 (PS-13), and Cell 14 (PS-14)  (21 gallon effective capacity, each)</p>	Flow rate or accumulation (gpd), as applicable	Weekly <sup>(1)</sup>

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
9. <u>Pond Leak Detection Sumps</u> Event Pond 1 (EP-1) Reclaim Pond (RSP) Reclaim Sump (RSS) <i>(500 gallon effective sump capacity, each)</i> ROM Ore Stockpile Pad Collection Pond (ROM-CP) <i>(1,500 gallon effective capacity)</i> ROM Phase 3 Stormwater Runoff Pond (ROM-SP) <i>(500 gallon effective sump capacity)</i> Dewatering Water Storage Pond leak detection (DWSP-LD)	Average daily accumulation or flow (gpd), as applicable	Weekly <sup>(1)</sup> (as commissioned)
10. <u>Process Solution</u> Pregnant Tank (PT); Tailings Liquid Fraction (TLF) Reclaim Solution (RS)	Profile I <sup>(2)</sup> , VOCs <sup>(12)</sup> , SVOCs <sup>(13)</sup> , and TPH <sup>(14)</sup> ; Profile I <sup>(2)</sup>	Q1 & Q3; Quarterly
11. <u>Other Solution Sources</u> ROM Ore Stockpile Pad Collection Pond (ROM-CPS) ROM Phase III Stormwater Runoff Pond (ROM-SPS) Iron Canyon Surge Pond (ICSP); Dewatering Water Storage Pond (DWSP)	Profile I <sup>(2)</sup> , volume collected (gal) and volume conveyed by destination (gal); Profile I <sup>(2)</sup>	Quarterly; Quarterly
12. <u>Tailings Impoundment Supernatant Pool</u> Solution depth at decant (SP-D); Areal extent (SP-A); Distance from embankment (SP-DE)	Depth (feet); Area (acres); Feet minimum from centerline construction	Weekly; Monthly; Monthly

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
<p>13. <u>Tailings Storage Facility Piezometers</u></p> <p><i>Impoundment Basin Toe:</i>  TI-1A, TI-1B, TI-2A, TI-2B, TI-3A, and TI-3B</p> <p><i>Embankment Subgrade:</i>  CP-1B, CP-1C, CP-2A, and CP-2B</p> <p><i>Embankment Pairs Stage 3:</i>  P3-2A, P3-2B, P3-4A, P3-4B, P3-6A, P3-6B, P3-7A, and P3-7B</p> <p><i>Embankment Pairs Stage 4:</i>  P4-2A, P4-2B, P4-4A, P4-4B, P4-6A, P4-6B, P4-7A, and P4-7B</p> <p><i>Embankment Pairs Stage 5:</i>  P5-1A, P5-1B, P5-2A, P5-2B, P5-3A, P5-3B, P5-4A, P5-4B, P5-5A, P5-5B, P5-6A, P5-6B, P5-7A, and P5-7B</p> <p><i>Embankment Pairs Stage 6:</i>  P6-1A, P6-1B, P6-2A, P6-2B, P6-3A, P6-3B, P6-4B, P6-5A, P6-5B, P6-6A, P6-6B, P6-7A, P6-7B, P6-8A, and P6-8B</p> <p><i>Embankment Pairs Stage 7:</i>  P7-1A, P7-1B, P7-2A, P7-2B, P7-3A, P7-3B, P7-4A, P7-4B, P7-5A, P7-5B, P7-6A, P7-6B, P7-7A, P7-7B, P7-8A, and P7-8B</p>	<p>Hydraulic head (feet)</p>	<p>Weekly (as commissioned)</p>
<p>14. <u>Philadelphia Canyon Surface Water Quality Monitoring</u></p> <p>Seepage Collection Points<sup>(26)</sup> (C-4/C-5 and Seep-D);</p> <p>Drainages<sup>(26)</sup> (PCD-1, PCD-2, and PCD-3)</p>	<p>Profile I<sup>(2)</sup> and volume collected by location (gal);</p> <p>Photograph, field pH (SU), temperature (°F), specific conductance (µS/cm), inflow (gpm)</p>	<p>Quarterly;</p> <p>Monthly (when flowing)</p>

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
<p>15. <u>Iron and Butte Canyons Surface Water Quality Monitoring</u></p> <p><i>Outflow to Surge Pond:</i> Butte Canyon (BCCO) Iron Canyon (ICCO);</p> <p><i>Collection Structures:</i> Gator Pond (IC-GP) Iron Canyon West (IC-W)</p>	<p>Profile I<sup>(2)</sup> and volume collected by location (gal);</p> <p>Profile I<sup>(2)</sup>; Field pH (SU), temperature (°F), specific conductance (µS/cm), in-flow (gpm)</p>	<p>Quarterly;</p> <p>Quarterly; Monthly (when flowing and accessible)</p>
<p>16. <u>Other Surface Water Quality Monitoring Locations</u></p> <p><i>Drainages:</i> 31-43-14-41 (Butte) 31-43-24-11 (Galena) 31-43-23-13 (Iron) 31-43-23-21 (Iron)</p> <p><i>Seeps:</i> Phx-1, Phx-2, Phx-4, Phx-5, Phx-6A<sup>(26)</sup>, Phx-8<sup>(26)</sup>, Phx-9, Phx-10, Phx-11, Phx-12, Phx-13, Phx-14, and Phx-15</p> <p><i>Springs:</i> 31-43-14-142 (Galena) 31-43-24-21 (Galena)</p>	<p>Field pH (SU), temperature (°F), specific conductance (µS/cm), in-flow (gpm)</p>	<p>Q4 (once established, when flowing, and when accessible)</p>
<p>17. <u>Waste Rock Seepage Collection Systems</u></p> <p>North Fortitude Waste Rock facility seep (NF WRS) Box Canyon Waste Rock facility seep (BC WRS)</p>	<p>Profile I<sup>(2)</sup>, total volume of solution collected and conveyed (gal), if applicable.</p>	<p>Quarterly</p>

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
18. <u>Mined Materials -Copper Leach Ore</u> Reona Copper Leach (REONA) Phoenix Copper Leach (PHNX)	MWMP <sup>(6)</sup> -Profile I-R <sup>(3)</sup> and ANP/AGP <sup>(7)(8)</sup>	Quarterly (when material is placed)
19. <u>Reona Copper Heap Leach Pad and Solution Channel Process Component Manhole Sumps (PCMS)--Capacity 500 gal each</u>  <i>Reona Copper Leach Phase 1A:</i> Phase 1A Cell A (PCMS-RE-1A-A) Phase 1A Cell B (PCMS-RE-1A-B) Phase 1A Cell C (PCMS-RE-1A-C)  <i>Reona Copper Leach Phase 1B:</i> Phase 1B Cell A (PCMS-RE-1B-A) Phase 1B Cell B (PCMS-RE-1B-B) Phase 1B Cell C (PCMS-RE-1B-C)  <i>Reona Solution Channel:</i> PLS/Events Pond Inlet (PCMS-RE-2)	Average daily accumulation (gpd)	Weekly <sup>(1)</sup> (as commissioned)
20. <u>Reona Copper Leach PLS/Events Pond and Solution Channel Leak Collection and Recovery Sumps (LCRS)--Capacity 65 gal each</u>  PLS/Events Pond (LCRS-RE-1) Solution Channel (LCRS-RE-2)	Average daily accumulation (gpd)	Weekly <sup>(1)</sup> (as commissioned)
21. <u>Reona Copper Leach PLS/Events Pond Solution</u>  PLS/Event Pond (PLS/EP-RE-1)	Profile I-R <sup>(3)</sup>	Quarterly

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
<p>22. <u>Phoenix Copper Heap Leach Pad and Solution Channel Process Component Manhole Sumps (PCMS)—</u>  <u>Cap. 500 gallons each</u></p> <p><i>Phoenix Copper Leach Phase I:</i>  Phase I Cell A (PCMS-PX-1A)  Phase I Cell B (PCMS-PX-1B)  Phase I Cell C (PCMS-PX-1C)  Phase I Cell D (PCMS-PX-1D)  Phase I Cell E (PCMS-PX-1E)  Phase I Cell F (PCMS-PX-1F)  Phase I Cell G (PCMS-PX-1G)  Phase I Cell H (PCMS-PX-1H)  Phase I Cell I (PCMS-PX-1I)  Phase I Cell J (PCMS-PX-1J)</p> <p><i>Phoenix Copper Leach Phase II:</i>  Phase II Cell A (PCMS-PX-2A)  Phase II Cell B (PCMS-PX-2B)  Phase II Cell C (PCMS-PX-2C)  Phase II Cell D (PCMS-PX-2D)  Phase II Cell E (PCMS-PX-2E)  Phase II Cell F (PCMS-PX-2F)  Phase II Cell G (PCMS-PX-2G)  Phase II Cell H (PCMS-PX-2H)  Phase II Cell I (PCMS-PX-2I)  Phase II Cell J (PCMS-PX-2J)</p> <p><i>Phoenix Copper Leach Phase III:</i>  Phase III Cell A (PCMS-PX-3A)  Phase III Cell B (PCMS-PX-3B)  Phase III Cell C (PCMS-PX-3C)  Phase III Cell D (PCMS-PX-3D)  Phase III Cell E (PCMS-PX-3E)  Phase III Cell F (PCMS-PX-3F)  Phase III Cell G (PCMS-PX-3G)  Phase III Cell H (PCMS-PX-3H)  Phase III Cell I (PCMS-PX-3I)  Phase III Cell J (PCMS-PX-3J)</p> <p><i>Copper Leach Solution Channel:</i>  PCMS-1-4, PCMS-1-5, PCMS-1-6,  and PCMS-1-7</p>	<p>Average daily accumulation  (gpd)</p>	<p>Weekly<sup>(1)</sup> (as  commissioned)</p>

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
23. <u>Phoenix Copper Leach Pregnant Leach Solution (PLS), Events Pond and Solution Channel Leak Collection and Recovery Sumps (LCRS)--Capacity 65 gal each</u>  PLS/Sediment Pond—Sed Compartment (LCRS-PX-1)  PLS/Sediment Pond--PLS Compartment (LCRS-PX-2) Pipeline Corridor (LCRS-PX-3) Phase I Events Pond (LCRS-PX-4) Phase II Events Pond (LCRS-PX-5)	Average daily accumulation (gpd)	Weekly <sup>(1)</sup> (as commissioned)
24. <u>Phoenix Copper Leach Pond Solutions</u>  PLS/Sediment Pond-- PLS Compartment (PLS/SED PX-2) Phase I Event Pond (EP1-PX-3) Phase II Event Pond (EP2-PX-4)	Profile I-R <sup>(3)</sup>	Quarterly
25. <u>Groundwater Quality Monitoring Wells</u>  <i>Reona Copper Heap Leach:</i> RLP-1, RLP-2, RLP-3 and RLP-4  <i>Phoenix Copper Heap Leach:</i> HLP-1, HLP-2, HLP-3, HLP-4, HLP-5, HLP-6, and HLP-7	Profile I-R <sup>(3)</sup> , water and collar elevation (ft AMSL), field pH (SU), specific conductance (μS/cm), temperature (°F), and artesian flow (gpm) as applicable	Quarterly (as commissioned)
26. <u>Raffinate Secondary Containment Pond, Phoenix Copper Leach and Reona Copper Leach Secondary Containment Trench Leak Collection and Recovery Sumps--Effective Capacity 65 gal each</u>  Raffinate Secondary Containment Pond (LCRS-RSCP) Phoenix Secondary Containment Trench (LCRS-PX-SCT) Reona Secondary Containment Trench (LCRS-RE-SCT)	Average daily accumulation or flow (gpd) as applicable	Weekly <sup>(1)</sup> (as commissioned)
27. <u>Raffinate Tank Solution (RT)</u>	Profile I-R <sup>(3)</sup>	Quarterly

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
28. <u>Long-Term Column Leach Tests</u> Column Leached Solids (LTCL-S)	MWMP <sup>(6)</sup> -Profile I-R <sup>(3)</sup> and ANP/AGP <sup>(7)(8)</sup>	Annually
29. <u>Long-Term Column Leach Tests</u> Column Leachate (LTCL-L)	Profile I-R <sup>(3)</sup>	Annually
30. <u>PCS Screening Analyses</u> Each temporary holding pad, by PCS source type; Each approved on-site disposal location, by PCS source type.	VOCs <sup>(12)</sup> , SVOCs <sup>(13)</sup> , and TPH <sup>(14)</sup> ; VOCs <sup>(12)</sup> , SVOCs <sup>(13)</sup> , and TPH <sup>(14)</sup>	Prior to removal <sup>(15)</sup> ; Quarterly, after provisional placement <sup>(15)</sup>
31. <u>PCS Hazardous Waste Determinations</u> Each PCS source	Hazardous waste determination <sup>(16)</sup>	When required <sup>(16)</sup>
32. <u>PCS Management</u> Each temporary holding pad, and disposal location, by PCS source type.	PCS volume added, volume removed and destination, total volume present (cubic yards)	Quarterly
33. <u>Cover Test Facility Lysimeters</u> Lysimeters 1 through 3	Meteorological data and soil water data <sup>(17)</sup>	Annually

The Permittee may request a reduction of the monitoring frequency after four quarters of complete monitoring based on justification other than cost. Such reductions may be considered modifications to the Permit and require payment of modification fees.

#### **Abbreviations and Definitions:**

AMSL = above mean sea level; ANP/AGP = Acid Neutralizing Potential:Acid Generation Potential ratio; ASTM = American Society for Testing and Materials; CaCO<sub>3</sub> = calcium carbonate; Eh = chemical reduction potential; EPA = U.S. Environmental Protection Agency; epilimnion = the uppermost layer in a stratified lake; gal = gallons; gpd = gallons per day; gpm = gallons per minute; hypolimnion = a lower layer in a thermally stratified lake below the metalimnion; metalimnion = a middle layer in a thermally stratified lake characterized by a temperature decrease with depth; mg/L = milligrams per liter; monimolimnion = the lower layer in a chemically stratified lake that does not mix with other layers; mV = millivolts; MWMP = Meteoric Water Mobility Procedure; N = nitrogen; NAC = Nevada Administrative Code; NDEP = Nevada Division of Environmental Protection; pCi/L = picocuries per liter; PCS = Petroleum-Contaminated Soil; pH = the

negative of the base 10 logarithm of the activity of the hydrogen ion; stratified = a pit lake that has distinct chemical and/or temperature layers; SU = standard units for pH measurement; SVOCs = semi-volatile organic compounds; TPH = total petroleum hydrocarbons; VOCs = volatile organic compounds; WAD = weak acid dissociable; > = greater than; ≥ = greater than or equal to; < = less than; °F = degrees Fahrenheit; µg/L = micrograms per liter; µS/cm = microSiemens per centimeter

**Footnotes:**

- (1) The sump must be inspected and evacuated on a more frequent basis than weekly if the fluid level is above the top of the sump or the invert of any pipe which discharges into the sump, whichever level is lower, or if the potential exists to exceed the sump capacity. Records are required documenting volume, date and time of extraction to show that sumps are maintained in this condition.

- (2) Profile I:

Alkalinity (as CaCO <sub>3</sub> )	Cadmium	Magnesium	Silver
Bicarbonate	Calcium	Manganese	Sodium
Total	Chloride	Mercury	Sulfate
Aluminum	Chromium	Nitrate + Nitrite (as N)	Thallium
Antimony	Copper	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Fluoride	pH (± 0.1 SU) <sup>(24)</sup>	WAD Cyanide
Barium	Iron	Potassium	Zinc
Beryllium	Lead	Selenium	-

- (3) Profile I-R includes Profile I plus the following<sup>(4)</sup>:

Uranium (mg/L & pCi/L)	Thorium (pCi/L)	Radium <sup>226</sup> + Radium <sup>288</sup> (pCi/L)	Gross Alpha (pCi/L)
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- (4) The Division reference values for radionuclides are as follows: 15 pCi/L for Gross Alpha, 5 pCi/L for Combined Radium, and 0.03 mg/L for Uranium
- (5) Installation and monitoring of the identified monitoring wells associated with the Phoenix Mine development may be deferred until no later than one quarter following completion of active mining or backfill operations at the location the monitoring well will be installed. An existing well may be substituted, with Division approval, if it is appropriately situated and accessible for the intended water quality monitoring purposes and if baseline data for a full Profile I<sup>(2)</sup> water quality analysis exists.
- (6) The Meteoric Water Mobility Procedure (MWMP) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method E 2242 (or the most current method).
- (7) When static testing<sup>(8)</sup> characterization of Mined Materials shows the potential for acid generation as set forth in the current version of the Division guidance document

“Waste Rock, Overburden, and Ore Evaluation,” the Permittee shall, as applicable, notify the Division in writing and initiate kinetic testing<sup>(9)</sup> within 10 days.

If the kinetic test results indicate acid generation conditions exist, the Permittee shall submit in writing, within 30 days, the methods proposed for providing containment of these materials and the anticipated impact this acid generation potential may have on final stabilization of all components affected as defined in Nevada Administrative Code (NAC) 445A.359.

- (8) Acid Neutralizing Potential/Acid Generating Potential (ANP/AGP, also known as static testing or acid-base accounting) shall be performed by a Nevada-approved laboratory, using a LECO-type analysis, with full sulfur speciation if ANP/AGP < 1.2, in accordance with the most current update of the Nevada Modified Sobek Procedure.
- (9) Kinetic testing (humidity cell testing) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method D 5744-07 Option ‘A’ (or the most current approved method); tests shall be run for a minimum of 20 weeks and for a longer duration if warranted or recommended by the analytical laboratory or required by the Division; samples shall be collected weekly (all weeks) and measurements shall be recorded for redox potential, pH (SU), specific conductance ( $\mu\text{S}/\text{cm}$ ), acidity and/or alkalinity (as deemed appropriate by the laboratory), sulfate, iron (total, plus ferric and ferrous speciation if total iron > 0.6 mg/L and pH < 5 SU), and dissolved calcium and magnesium; weekly filtered extracts per the method will be digested and analyzed for total recoverable concentrations during week 0, 1, 2, 4, 8, 12, 16, and 20; 4-week extracts thereafter (i.e., week 24, 28, 32, etc.) shall be analyzed by a Nevada-certified analytical laboratory for Profile I<sup>(2)</sup> parameters, and specific conductance ( $\mu\text{S}/\text{cm}$ ) and acidity and/or alkalinity shall be recorded as recommended by the analytical laboratory; final results reported shall include initial and final static test results<sup>(8)</sup>, a Profile I<sup>(2)</sup> analysis of the final leachate, all kinetic test results above, and any additional analyses required by the Division.
- (10) Sampling for the quarterly analyses shall be a composite of the sample material collected on a weekly basis from active waste rock disposal locations during the reporting period as described in the *Phoenix Mine Waste Rock Management Plan*.
- (11) Sampling for the annual humidity cell tests shall be a composite of the reject material from the quarterly composited samples during the reporting period from the active waste rock disposal locations as described in the *Phoenix Mine Waste Rock Management Plan*.
- (12) Volatile Organic Compounds (VOCs) analyzed by a Nevada-certified laboratory using the most recent published version of EPA Method 8260.
- (13) Semi-Volatile Organic Compounds (SVOCs) analyzed by a Nevada-certified laboratory using the most recent published version of EPA Method 8270.
- (14) Total Petroleum Hydrocarbons (TPH) analyzed by a Nevada-certified laboratory using EPA Method 8015 Modified. If any gasoline-range petroleum is suspected, or if the source-type is unknown, both TPH-P (purgeable) and TPH-E (extractable) are required. Otherwise, only TPH-E is required.

- (15) Each segregated source type of PCS must be sampled separately pursuant to the approved sample collection protocol. For temporary holding pads and treatment cells, analyses are required only in quarters when PCS removal from the pad is anticipated. Removal to an on-site disposal location is authorized if PCS meets screening levels. For approved on-site disposal locations, analyses are required only in quarters when PCS has been provisionally placed subject to screening results.
- (16) A hazardous waste determination is required: a) Initially, for each PCS source prior to management under the PCS Management Plan; b) When a PCS waste stream is suspected to have changed character since the last determination; and c) When a hazardous constituent is detected during screening analyses at a concentration suggestive of hazardous waste. Determinations must be performed pursuant to 40 Code of Federal Regulations (CFR) 262.11 using operator knowledge and/or applicable analytical testing methods described in EPA publication SW-846. Operator knowledge must be adequately described and sufficient to justify the determination.
- (17) Meteorological data collected includes precipitation, air temperature, relative humidity, wind speed and direction, solar radiation and barometric pressure. Soil moisture monitoring includes volumetric soil water content at multiple depths (number dependent on profile depth) in the soil profile and at 2-3 locations in the lysimeter. Drainage monitoring includes the dosing basin, dual tipping bucket gauge and pressure transducer. The instrumentation is designed to collect data based on different frequencies. The hourly recording and daily summarization is typical but may be varied based on volume of data.
- (18) For presence of water, state whether the pit surface is dry, damp, or wet (ponded or flowing water). If ponded water, the Permittee shall perform the required monitoring for pit lakes.
- (19) A continuous temperature-conductivity profile shall be completed for the entire water column at the deepest location in each pit lake.
- (20) Field measurements (e.g., temperature, specific conductance, pH, Eh, etc.) shall be made at the Project site concurrent with the monitoring activity using a calibrated instrument, and do not require analysis by a laboratory certified or approved by the State of Nevada as otherwise specified in Part II.E.5. Field measurements must be accompanied by appropriate calibration information.
- (21) The surface samples must be collected less than 10 feet below the surface of the pit lake.
- (22) Depth sampling shall be performed at the deepest location in each pit lake. The number and depth of samples shall be determined based on the temperature-conductivity profile of the water column at the time of sampling. If the lake is stratified, collect a separate depth sample from each distinct layer in the water column (e.g., from the epilimnion, metalimnion, hypolimnion, and monimolimnion, as applicable; however, note that the quarterly sample from the surface layer [epilimnion] must be analyzed for Profile III constituents per the surface sample requirements whereas the quarterly depth samples from all other layers are analyzed

for Profile I constituents). If the lake is unstratified and between 25 and 50 feet deep, collect one depth sample from the lower half of the water column. If the lake is unstratified and greater than 50 feet deep, collect two depth samples consisting of an intermediate sample from the middle third of the water column and a deep sample from the lower third of the water column. If the lake is less than 25 feet deep but includes an outflow to groundwater (i.e., it is a hydrologic flow-through pit lake), collect a quarterly Profile I surface sample in addition to the quarterly Profile III surface sample.

(23) Profile III:

Alkalinity (as CaCO <sub>3</sub> )	Calcium	Mercury	Strontium
Bicarbonate	Chloride	Molybdenum	Sulfate
Total	Chromium	Nickel	Thallium
Aluminum	Copper	Nitrate + Nitrite (as N)	Tin
Antimony	Fluoride	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Iron	pH ( $\pm 0.1$ SU) <sup>(24)</sup>	Total Suspended Solids
Barium	Lead	Phosphorus	Uranium
Beryllium	Lithium	Potassium	Vanadium
Boron	Magnesium	Selenium	Zinc
Cadmium	Manganese	Sodium	-

(24) All sample analyses resulting in a pH value less than or equal to 5.0 SU shall also be analyzed for acidity (mg/L, as CaCO<sub>3</sub> equivalent).

(25) These wells will be abandoned with the Phoenix Pit Expansion.

(26) These wells will be abandoned with the Philadelphia Waste Rock Facility expansion.

(27) Spend Reona Gold HLP ore used specifically as embankment fill, filter fill, and alluvial fill cover for TSF construction.

(28) Weekly samples of Reona Leach material used for TSF construction off-liner will be composited for a quarterly sample.

E. Quarterly and annual monitoring reports and spill reporting shall be in accordance with Part II.B.

F. All sampling and analytical accuracy shall be in accordance with Part II.E.

G. Permit Limitations

1. The daily accumulation of flow exceeding 75 gallons per day averaged over the quarter in any one of the leak detection pipes identified in Parts I.D.7 and I.D.8, and in the leak detection manhole sumps identified in Part I.D.8 and the process component manhole sumps identified in Parts I.D.19 and I.D.22.

2. The daily accumulation of flow exceeding 25 gallons per day averaged over the year in any one of the leak detection pipes identified in Parts I.D.7 and I.D.8, or in the leak detection manhole sump identified in Part I.D.8 and the process component manhole sumps identified in Parts I.D.19 and I.D.22.
3. The daily accumulation of flow exceeding 150 gallons per day averaged over the quarter in the pond leak detection sumps identified in Part I.D.9, and the process component monitoring sumps identified in Parts I.D.20, I.D.23, and I.D.26.
4. The daily accumulation of flow exceeding 50 gallons per day averaged over the year in the pond leak detection sumps identified in Part I.D.9, and the process component monitoring sumps identified in Parts I.D.20, I.D.23, and I.D.26.
5. Failure to meet a Schedule of Compliance date or requirement.
6. The storage of process solution in a single-lined pond is limited to no more than 20 consecutive days for any single event.
7. The Permittee shall notify the Division in writing within 10 days of any mine opening penetrating the pre-dewatering groundwater elevation.
8. Near the location of the supernatant pool within the Phoenix Mine Tailings Storage Facility (TSF), dam crest lift staging shall be based on a minimum 3 feet of freeboard in addition to a supernatant pool minimum depth of 2 feet. In beach areas, dam crest staging shall be based on a dam crest elevation 1 foot higher than the adjacent final staged tailings elevation.
9. The maximum TSF embankment crest design height is limited to an elevation of 5,035 feet AMSL.
10. The supernatant pool may not encroach within 300 feet of any TSF embankment stage that will be expanded using centerline construction.
11. Tailings material may not be removed from the tailings impoundment and used for any other purpose without prior written authorization from the Division.
12. Sediment shall be removed as necessary from the TSF slurry and reclaim pipeline corridor Catch Basins (6 each) and the Culvert X-Over to ensure the minimum design 110-percent solution containment capacity is available at all times.
13. Any discharge to the TSF other than tailings slurry is prohibited.
14. A minimum 2-foot freeboard or the minimum design freeboard, whichever is greater, to accommodate the solution volume resulting from the design 25-year, 24-hour storm event shall be maintained at all times during normal operation in any solution or stormwater pond.
15. The Reona Gold Heap Leach Pad is limited to a design solution application rate of 0.005 gpm/ft<sup>2</sup> and the effective draindown for flow through the process plant is limited to 3,000 gpm.
16. The Reona Gold Heap Leach Pad, Phase 1 through Phase 4, is limited to a maximum height of 320 feet, measured vertically from the top of a minimum 80-mil HDPE liner for any point on the top of the pad.

17. The Phoenix Project footprint expansion of the Reona Gold Heap Leach Pad is limited to a maximum height of 200 feet, measured vertically from the top of a minimum 80-mil HDPE liner for any point on the top of the pad.
18. Capping material characterized and approved by the Division, shall be placed to design thickness within 12 months of the completion of any waste rock facility lift.
19. Sediment shall be removed from the concrete conveyor corridor slab as necessary to ensure adequate design freeboard is available to convey solution generated by the design storm event from the Coarse Ore Stockpile Pad Outlet Sump and Outlet Pipes to the Phoenix Mill containment.
20. The North Fortitude waste rock seep solution collection tanks shall be evacuated when filled to a maximum 70 percent of capacity, in accordance with the approved operating procedure, and the evacuated solution shall be added to the Phoenix Mill solution inventory.
21. As measured vertically from any point on the top of the protective layer, the ROM Stockpile Pad may be loaded to a maximum design height of 60 feet in two 30-foot lifts with a minimum 18-foot wide bench between lifts and a minimum 10-foot setback between the stockpile toe and the toe of the perimeter berm.
22. Failure to construct, manage, or monitor a component and/or associated control device in accordance with any applicable plan.
23. The Phoenix Copper Heap Leach Pad (Phases 1A, 1B, 2A, and 2B), is limited to a maximum height of 300 feet, measured vertically from the 80-mil HDPE liner for any point on the top of the heap.
24. Reona Copper Heap Leach Pad, Phases 1A and 1B, is limited to a maximum height of 300 feet, measured vertically from the 80-mil HDPE liner for any point on the top of the heap.
25. Copper Leach pad loading shall begin at a distance inside the perimeter berm to accommodate regrading of the heap side slopes to final reclamation contours.
26. The cumulative acid solution application rate to the Phoenix and Reona Copper Heap Leach Pads shall not exceed the permitted 15,000 gpm. Additionally, the solution application rate *per unit area* should not exceed 0.01 gpm/ft<sup>2</sup>.
27. The effective flow rate for PLS to the SX-EW plant is limited to a maximum of 15,000 gpm.
28. PCS that exceeds screening levels shall not be placed at an on-site disposal location.
29. For backfilled pits, the backfill shall be placed within the pits to an elevation at least 40 feet above the predicted groundwater rebound elevation and the waste rock will be amended as necessary to neutralize potential acid generation, limit sulfate and metal dissolution, and minimize impacts to groundwater.
30. The North Optional Use Area shall not be mined below the 5,700 feet AMSL without additional characterization, per Phase IV of the Greater Phoenix Expansion or written approval from the Division.

31. No existing monitoring points shall be abandoned without prior written approval by the Division.
  32. At a minimum of annually, sumps located in the Mill, SXEW plant, truck wash, and maintenance area shall have photograph evidence of emptied sumps and documentation of any repairs provided to the Division.
  33. The facility shall not degrade waters of the State to the extent that applicable water quality standards or reference values, and background concentrations, are exceeded.  
Exceedances of these limitations may be Permit violations and shall be reported as specified in Part II.B.4.
- H. The facility shall maintain an automated or manual calibrated rain gauge, which shall be monitored at least daily to record precipitation (inches of water). A written and/or electronic record of daily accumulations of precipitation shall be maintained on site.
  - I. The Permittee shall inspect all control devices, systems and facilities weekly, and during (when possible) and after major storm events. These inspections are performed to detect evidence of:
    1. Deterioration, malfunction, or improper operation of control or monitoring systems;
    2. Sudden changes in data from any monitoring device;
    3. The presence of liquids in leak detection systems; and
    4. Severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.
  - J. Prior to initiating permanent closure activities at the facility, or any process component or other source within the facility, the Permittee must have an approved final plan for permanent closure.
  - K. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 starting July 1 after the effective date of this Permit and every year thereafter until the Permit is terminated or the facility has received final closure certification from the Division.
  - L. The Permittee shall not dispose of or treat Petroleum-Contaminated Soil (PCS) on the mine site with first obtaining from the Division approval of a PCS Management Plan. The approved PCS Management Plan and the Division's Guidance for Mine-Site PCS Management Plans are hereby incorporated into this Permit by reference.
  - M. When performing dust suppression activities, the Permittee shall use best management practices and appropriate selection of water source and additives to prevent degradation of waters of the State. If a dust suppressant exceeds a water quality standard and the corresponding natural background water concentration in the area where dust suppression will occur, the Permittee shall demonstrate no potential to degrade waters of the State.

N. Continuing Investigations:

1. The Permittee shall submit to the Division for review and approval an updated groundwater flow model and pit lake study with each Permit renewal and with any application to modify the Permit that could affect the pit lake predictive model. The submittal shall also include an ecological risk assessment if the predictive pit lake model indicates the potential for exceedance of a Division Profile III reference value, unless the constituent concentration for each predicted Profile III exceedance is no greater than the concentration evaluated in a previous Division-approved ecological risk assessment for the Project. These studies and assessments shall address, at a minimum, the requirements of NAC 445A.429, and shall include all available data, alternative pit lake or backfill scenarios, and mitigations to reduce ecological risk and the potential to degrade groundwater, as applicable. Approval may require modification of the Permit and payment of modification fees.
2. The Permittee shall submit to the Division for review and approval an updated waste rock management plan (WRMP) with each Permit renewal and with any application to modify the Permit that could affect the WRMP. A revised WRMP must also be approved prior to initiating mining or in-pit backfill activities not previously approved. The WRMP must include representative characterization data for all anticipated waste rock and overburden in accordance with the current version of the Division guidance document "Waste Rock, Overburden, and Ore Evaluation," in addition to a detailed description of how, when, and where the materials will be managed and monitored, and appropriate controls to eliminate any potential to degrade waters of the State, if applicable. Approval may require modification of the Permit and payment of modification fees.
3. With each subsequent application for renewal of this Permit or operational or facility change that could affect the Phoenix Copper Leach Project and Tentative Plan for Permanent Closure (TPPC), the Permittee must reevaluate the TPPC and provide an update or modification of the plan.

The updated TPPC shall include, but is not limited to, the following:

- a. Any changes to the proposed closure methods of the solvent extraction-electrowinning (SX-EW) plant, copper leach facilities, and process ponds;
- b. Any changes regarding the type and depth of cover proposed for placement at closure of the leach pads. Predictive modeling shall be updated to demonstrate the continued effectiveness of the proposed cover design and placement;
- c. Any changes regarding the management of heap draindown solutions and solution disposal; and
- d. Any changes regarding the projected time frames for leaching, solution recirculation/draindown, solution disposal, regrading of the leach pads and cover placement, pad revegetation, pond closure, and post-closure monitoring.

## II. General Facility Conditions and Limitations

### A. General Requirements

1. The Permittee shall achieve compliance with the conditions, limitations, and requirements of the Permit upon commencement of each relevant activity. The Administrator may, upon the request of the Permittee and after public notice (if required), revise or modify a Schedule of Compliance in an issued permit if he or she determines good and valid cause (such as an act of God, a labor strike, materials shortage or other event over which Permittee has little or no control) exists for such revision.
2. The Permittee shall at all times maintain in good working order and operate as efficiently as possible, all devices, facilities, or systems installed or used by the Permittee to achieve compliance with the terms and conditions of this Permit.
3. Whenever the Permittee becomes aware that he or she failed to submit any relevant facts in the permit application, or submitted incorrect information in a Permit application or in any report to the Administrator, the Permittee shall promptly submit such facts or correct information. Any inaccuracies found in this information may be grounds for revocation or modification of this Permit and appropriate enforcement action.

### B. Reporting Requirements

1. The Permittee shall submit quarterly reports, in both hard copy and a Division-approved electronic format, which are due to the Division on or before the 28<sup>th</sup> day of the month following the quarter and must contain the following:
  - a. A status update on the Schedule of Compliance Items in Part I.B;
  - b. Monitoring results from the leak detection sumps, leak detection pipes, or process component monitoring sumps identified in Parts I.D.7, I.D.8, I.D.9, I.D.19, I.D.20, I.D.22, I.D.23, and I.D.26 reported on Nevada Division of Environmental Protection (NDEP) Form 0590 or equivalent;
  - c. Analytical results of the solution collected from monitoring locations identified in Parts I.D.1, I.D.2, I.D.14, I.D.15, and I.D.25 reported on NDEP Form 0190 or equivalent;
  - d. Analytical results of the process solution collected from monitoring locations identified in Parts I.D.10, I.D.21, I.D.24, and I.D.27 reported on NDEP Form 0190 or equivalent;
  - e. Analytical results of the solution collected from and operational data collected for the monitoring locations identified in Part I.D.11, reported on NDEP Form 0190 or equivalent;
  - f. Water and collar elevations for site monitoring wells identified in Parts I.D.1, I.D.2, and I.D.3;
  - g. Analytical results for the pit lakes identified in Part I.D.4, reported on NDEP Form 0290 and NDEP Form 0190 or equivalent, as applicable;

- h. Analytical results of characterization tests and management data for waste rock generated, as required in Part I.D.5 and the most current version of the *Phoenix Project Waste Rock Management Plan*;
- i. Analytical results of spent leach ore characterization as required in Parts I.D.6 and I.D.18, reported on NDEP Form 0190 or equivalent;
- j. Tables of the operational parameters collected for the Supernatant Pool as required in Part I.D.12;
- k. Tables or graphs of monitoring results for the piezometer locations identified in Part I.D.13;
- l. A record of releases, and the remedial actions taken in accordance with the approved Emergency Response Plan on NDEP Form 0490 or equivalent;
- m. For any kinetic test initiated, continued, or terminated with Division approval during the quarter, provide a brief report of the test status and an evaluation of the results to date, which shall include all analytical data generated from the date testing was initiated through the reporting quarter;
- n. A summary that provides any supplemental monitoring data and describes the water resources monitoring activities, waste rock facility construction and reclamation activities, and open pit backfilling activities during the quarter;
- o. A summary of the data collected for the waste rock seep collection systems identified in, and in accordance with, Part I.D.17;
- p. Analytical results, copies of hazardous waste determinations, and monitoring results, identified in Parts I.D.30 through I.D.32, pertaining to the approved PCS Management Plan; and
- q. An updated list of all PCS sources managed under the approved PCS Management Plan, with any new or changed sources highlighted, reported on NDEP Form PCS-01 or equivalent; current screening levels for each on-site disposal location; and a detailed explanation of any revisions to screening levels.
- r. A summary of the sumps emptied, photographed, and repaired for the quarter per I.G.32.

Facilities which have not initiated mining or construction, must submit a quarterly report identifying the status of mining or construction. Subsequent to any noncompliance or any facility expansion which provides increased capacity, the Division may require an accelerated monitoring frequency.

- 2. The Permittee shall submit an annual report, in both hard copy and a Division-approved electronic copy, by February 28<sup>th</sup> of each year, for the preceding calendar year, which contains the following:
  - a. Analytical results of column leach test ore characterization as required in Part I.D.28, reported on NDEP Form 0190 or equivalent;

- b. Analytical results of the solution collected from and operational data collected for the column leach tests identified in Part I.D.29, reported on NDEP Form 0190 or equivalent;
- c. A summary of the analytical results for the HCT running or terminated during the previous year;
- d. A report (*Waste Rock Management Report*) of results and conclusions for all activities undertaken for the management of waste rock during the previous year identified in part I.D.5, in accordance with the most current version of the *Phoenix Mine Waste Rock Management Plan*. The report shall include identification and discussion of any waste rock management issues during the previous year and recommendations for modifications to the plan, any related plan, and/or the Permit, based on evaluation of the collected data and operational experience;
- e. A report of results, evaluation of collected data, conclusions, and recommendations for all required mitigation, reclamation, and closure activities undertaken during the previous year;
- f. A report that summarizes the results and conclusions of monitoring and operation of the Stormwater Management System, generally located in Butte, Box, Iron, and Philadelphia Canyons, during the previous year in accordance with the designs and identified in part I.D.14, I.D.15, I.D.16 and I.D.17. The report shall provide recommendations for modification to any system design, operation protocol, solution management protocol, or the Permit, as may be warranted, based on operational experience and evaluation of collected data;
- g. A report that summarizes the results and conclusions of the Phoenix Copper Leach Project long-term column leach tests conducted during the previous year identified in part I.D.28. The report shall provide recommendations for modifications to the TPPC and/or the Permit as may be warranted based on operational experience and evaluation of collected data;
- h. A report that summarizes the results and conclusions of the Phoenix Copper Leach Project long-term cover lysimeter tests conducted during the previous year based on the monitoring results collected in part I.D.33. The report shall provide recommendations for modifications to the testing protocol and/or the Permit as may be warranted based on operational experience and evaluation of collected data;
- i. A synopsis of releases on NDEP Form 0390 or equivalent;
- j. A brief summary of site operations, including the number of tons of ore milled or placed on heaps (as applicable) during the year, construction and expansion activities, and major problems with the fluid management system ;
- k. A table of total monthly precipitation amounts recorded in accordance with Part I.H, reported for either a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter;
- l. Monthly precipitation amounts and a summary report of monthly climatic conditions including, but not limited to, daily maximum and minimum wind speed, temperature, and humidity, and monthly graphs of daily wind direction and solar

- radiation measurements, reported for either the five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter;
- m. An updated version of the facility monitoring and sampling procedures and protocols;
  - n. An updated evaluation of the closure plan using specific characterization data for each process component with respect to achieving stabilization; and
  - o. Graphs of leak detection flow rates, pH, total dissolved solids (TDS), sulfate, chloride, nitrate + nitrite (as N), WAD cyanide, fluoride, zinc, uranium, and arsenic concentration (as applicable), versus time for all fluid sampling points. Graphs may incorporate, as practical, multiple constituents and/or monitoring locations and shall display either a five-year history previous to the date of submittal or the history since the initial Permit issuance whichever is shorter. Additional parameters may be required by the Division if deemed necessary.
3. Release Reporting Requirements: The following applies to facilities with an approved Emergency Response Plan. If a site does not have an approved Emergency Response Plan, then all releases must be reported as per NAC 445A.347 or NAC 445A.3473, as appropriate.
- a. A release of any quantity of hazardous substance, as defined at NAC 445A.3454, to surface water, or that threatens a vulnerable resource, as defined at NAC 445A.3459, must be reported to the Division as soon as practicable after knowledge of the release, and after the Permittee notifies any emergency response agencies, if required, and initiates any action required to prevent or abate any imminent danger to the environment or the health or safety of persons. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b.
  - b. A release of a hazardous substance in a quantity equal to or greater than that which is required to be reported to the National Response Center pursuant to 40 CFR Part 302 must be reported as required by NAC 445A.3473 and Part II.B.3.a.
  - c. A release of a non-petroleum hazardous substance not subject to Parts II.B.3.a. or II.B.3.b., released to soil or other surfaces of land, and the total quantity is equal to or exceeds 500 gallons or 4,000 pounds, or that is discovered in or on groundwater in any quantity, shall be reported to the Division no later than 5:00 P.M. of the first working day after knowledge of the release. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b. Smaller releases, with total quantity greater than 25 gallons or 200 pounds and less than 500 gallons or 4,000 pounds, released to soil or other surfaces of land, or discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.
  - d. Petroleum Products and Coolants: If a release is subject to Parts II.B.3.a. or II.B.3.b., report as specified in Part II.B.3.a. Otherwise, if a release of any quantity is discovered on or in groundwater, or if the total quantity is equal to or greater than

100 gallons released to soil or other surfaces of land, report as specified in Part II.B.3.c. Smaller releases, with total quantity greater than 25 gallons but less than 100 gallons, released to soil or other surfaces of land, or if discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

4. The Permittee shall report to the Administrator any noncompliance with the Permit.
  - a. Each such event shall be reported orally by telephone to (775) 687-9400, not later than 5:00 P.M. of the next regular work day from the time the Permittee has knowledge of the circumstances. This report shall include the following:
    - i. Name, address, and telephone number of the owner or operator;
    - ii. Name, address, and telephone number of the facility;
    - iii. Date, time, and type of incident, condition, or circumstance;
    - iv. If reportable hazardous substances were released, identify material and report total gallons and quantity of contaminant;
    - v. Human and animal mortality or injury;
    - vi. An assessment of actual or potential hazard to human health and the environment outside the facility; and
    - vii. If applicable, the estimated quantity of material that will be disposed and the disposal location.
  - b. A written summary shall be provided within 10 days of the time the Permittee makes the oral report. The written summary shall contain:
    - i. A description of the incident and its cause;
    - ii. The periods of the incident (including exact dates and times);
    - iii. If reportable hazardous substances were released, the steps taken and planned to complete, as soon as reasonably practicable, an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269;
    - iv. Whether the cause and its consequences have been corrected, and if not, the anticipated time each is expected to continue; and
    - v. The steps taken or planned to reduce, eliminate, and prevent recurrence of the event.
  - c. The Permittee shall take all available and reasonable actions, including more frequent and enhanced monitoring to:
    - i. Determine the effect and extent of each incident;
    - ii. Minimize any potential impact to the waters of the State arising from each incident;
    - iii. Minimize the effect of each incident upon domestic animals and all wildlife; and
    - iv. Minimize the endangerment of the public health and safety which arises from each incident.

- d. If required by the Division, the Permittee shall submit, as soon as reasonably practicable, a final written report summarizing any related actions, assessments, or evaluations not included in the report required in Part II.B.4.b., and including any other information necessary to determine and minimize the potential for degradation of waters of the State and the impact to human health and the environment. Submittal of the final report does not relieve the Permittee from any additional actions, assessments, or evaluations that may be required by the Division.

#### C. Administrative Requirements

1. A valid Permit must be maintained until permanent closure is complete. Therefore, unless permanent closure has been completed and termination of the Permit has been approved in writing by the Division, the Permittee shall apply for Permit renewal not later than 120 days before the Permit expires.
2. Except as required by NAC 445A.419 for a Permit transfer, the Permittee shall submit current Permit contact information described in paragraphs (a) through (c) of subsection 2 of NAC 445A.394 within 30 days after any change in previously submitted information.
3. All reports and other information requested by the Administrator shall be signed and certified as required by NAC 445A.231.
4. All reports required by this Permit, including, but not limited to, monitoring reports, corrective action reports, and as-built reports, as applicable, and all applications for Permit modifications, shall be submitted in both hard copy and a Division-approved electronic format.
5. When ordered consistent with Nevada Statutes, the Permittee shall furnish any relevant information in order to determine whether cause exists for modifying, revoking and reissuing, or permanently revoking this Permit, or to determine compliance with this Permit.
6. The Permittee shall maintain a copy of, and all modifications to, the current Permit at the permitted facilities at all times.
7. The Permittee is required to retain during operation, closure and post-closure monitoring, all records of monitoring activities and analytical results, including all original strip chart or data logger recordings for continuous monitoring instrumentation, and all calibration and maintenance records. This period of retention must be extended during the course of any unresolved litigation.
8. The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not thereby be affected.
9. The Permittee is authorized to manage fluids and solid wastes in accordance with the conditions of this Permit. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State or

local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Water Pollution Control Statutes for releases or discharges from facilities or units not regulated by this Permit. NRS 445A.675 provides that any person who violates a Permit condition is subject to administrative or judicial action provided in NRS 445A.690 through 445A.705.

D. Division Authority

The Permittee shall allow authorized representatives of the Division, at reasonable times, and upon the presentation of credentials to:

1. Enter the premises of the Permittee where a regulated activity is conducted or where records are kept per the conditions of this Permit;
2. Have access to and copy any record that must be kept per the conditions of this Permit;
3. Inspect and photograph any facilities, equipment (including monitoring and control equipment), practices, or operations regulated by this Permit; and
4. Sample or monitor for any substance or parameter at any location for the purposes of assuring Permit and regulatory compliance.

E. Sampling and Analysis Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. For each measurement or sample taken pursuant to the conditions of this Permit, the Permittee shall record the following information:
  - a. The exact place, date, and time of the inspection, observation, measurement, or sampling; and
  - b. The person(s) who inspected, observed, measured, or sampled.
3. Samples must be taken, preserved, and labeled according to Division approved methods.
4. Standard environmental monitoring chain of custody procedures must be followed.
5. Samples shall be analyzed by a laboratory certified or approved by the State of Nevada, as applicable for the method(s) being performed. The Permittee must identify in all required reports the certified and approved laboratories used to perform the analyses, analytical methods performed, laboratory reference numbers, sample dates, and laboratory test dates.
6. The accuracy of analytical results, unless otherwise specified, shall be expressed in mg/L and be reliable to at least two significant digits. The analytical methods used must have a practical quantitation limit (PQL) equal to or less than one-half the reference value for Profile I, and Profile III parameters. Laboratories shall report the lowest reasonable PQL based on in-house method detection limit studies. Samples for Profile I parameters shall be filtered and analyzed for the dissolved fraction, unless otherwise required by the Division; samples for Profile III parameters shall be unfiltered and analyzed for the total recoverable fraction. Unless otherwise approved

by the Division, analytical results that are less than the PQL shall be reported quantitatively by listing the PQL value preceded by the "<" symbol.

F. Permit Modification Requirements

1. Any material modification, as defined at NAC 445A.365, plan to construct a new process component, or proposed change to Permit requirements must be reported to the Division by submittal of an application for a Permit modification, or if such changes are in conformance with the existing Permit, by submittal of a written notice of the changes. The Permit modification application must comply with NAC 445A.391 through 445A.399, 445A.410, 445A.412, 445A.414, 445A.415, 445A.416, 445A.417, 445A.440, and 445A.442, as applicable. The construction or modification shall not commence, nor shall a change to the Permit be effective, until written Division approval is obtained.
2. Prior to the commencement of mining activities at any site within the State which is owned or operated by the Permittee but not identified and characterized in a previously submitted application or report, the Permittee shall submit to the Division a report which identifies the locations of the proposed mine areas and waste disposal sites, and characterizes the potential of mined materials and areas to release pollutants. Prior to development of these areas the Division shall determine if any of these new sources will be classified as process components and require engineered containment as well as Permit modification.
3. The Permittee shall notify the Division in writing at least 30 days before the introduction of process solution into a new process component or into an existing process component that has been materially modified, or of the intent to commence active operation of that process component. Before introducing process solution or commencing active operation, the Permittee shall obtain written authorization from the Division.
4. The Permittee must obtain a written determination from the Administrator of any planned process component construction or material modification, or any proposed change to Permit requirements, as to whether it is considered a Permit modification, and if so, what type.
5. The Permittee must give advance notice to the Administrator of any planned changes or activities which are not material modifications in the permitted facility that may result in noncompliance with Permit requirements.

Prepared by: Rob Kuczynski, P.E.

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Modified by: Natasha Zittel

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Revision 01: Greater Phoenix Major Modification and boilerplate updates