



Chino Mines Company  
PO Box 10  
Bayard, NM 88023

June 26, 2024

**Certified Mail # 70190140000026680044**  
**Return Receipt Requested**

Mr. Kevin Barnes and Mr. DJ Ennis  
Energy, Minerals & Natural Resources Dept  
Mining and Minerals Division  
Mining Act Reclamation Program  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Dear Mr. Barnes and Ennis:

**Re: Freeport-McMoRan Chino Mines Company –**  
**Modification Request to Permit No. GR009RE- Southwest Lampbright**  
**Waste Rock Stockpile Buttress**

As we have discussed, Freeport-McMoRan Chino Mines Company (Chino) needs to construct a buttress on the north side of the Southwest Lampbright Waste Rock Stockpile to stabilize the stockpile where a toe heave has been observed. The buttress/infill was designed by Knight Piesold Consulting and is included in Attachment 5. Please note that Knight Piesold gave this buttress a new stockpile name, however, it is simply an extension of the existing Southwest Lampbright Waste Rock Stockpile and is being built to stabilize the stockpile. The entire area of the buttress/infill is inside the the current Design Limits of the existing Lampbright stockpiles. Attachment 1 is a copy of the current design limits.

During our discussion you raised a question regarding whether there is a change to the Chino Closure-Closeout Plan (CCP) as currently approved. Provided in Attachment 3 are two figures of the area of the Southwest Lampbright Waste Rock Stockpile and the buttress/infill. The first figure shows the current topography of the Southwest Waste Rock Stockpile and the Lampbright Leach Stockpile. This shows a small corridor between the two stockpiles which results in two steep slopes that have to be reclaimed at closure. The current reclamation design (Attachment 2) grades and covers the slopes and maintains a drainage in this corridor. The second figure shows the buttress filling in the corridor between the two stockpiles. Included on these figures are the flat areas in green and the slopes in yellow and pink. As you can see, the slopes are reduced by 28 acres and the flat area increased by 28 acres. As we know, flat areas are less expensive to reclaim than slopes and therefore, our analysis is that the construction of the buttress will result in a slight reduction in cost and associated financial assurance. This buttress was also included in the Renewal and Modification of DP-376 with the New Mexico Environment Department. A map of the Lampbright area including the SW Lampbright Stockpile and the buttress from DP-376 is included in Attachment 4.

After our discussion on June 14, 2024, MMD determined that according to 19.19.5.505 NMAC, the designed buttress/infill will require a permit modification due to a change in the financial assurance associated with the approved closeout plan. A check in the amount of \$1,000 as

Messers. Barnes and Ennis

June 26, 2024

Page 2

required by 19.10.2.201 is attached for processing this permit modification request. If you have any questions, please contact me at 575-912-5927.

Sincerely,



Sherry Burt-Kested, Manager  
Environmental Services

Attachments:

1. Chino Mine Design Limits
2. Reclamation Design Drawing No. 7, Chino CCP Appendix A
3. Closure Design of SW Waste Rock Stockpile Before and After Buttress
4. DP-376 Map of SW Waste Rock Stockpile including Buttress
5. Knight Piesold Consulting Design of the Southwest Lampbright Waste Rock Stockpile Buttress/Infill
6. Check for \$1,000 for permit modification processing

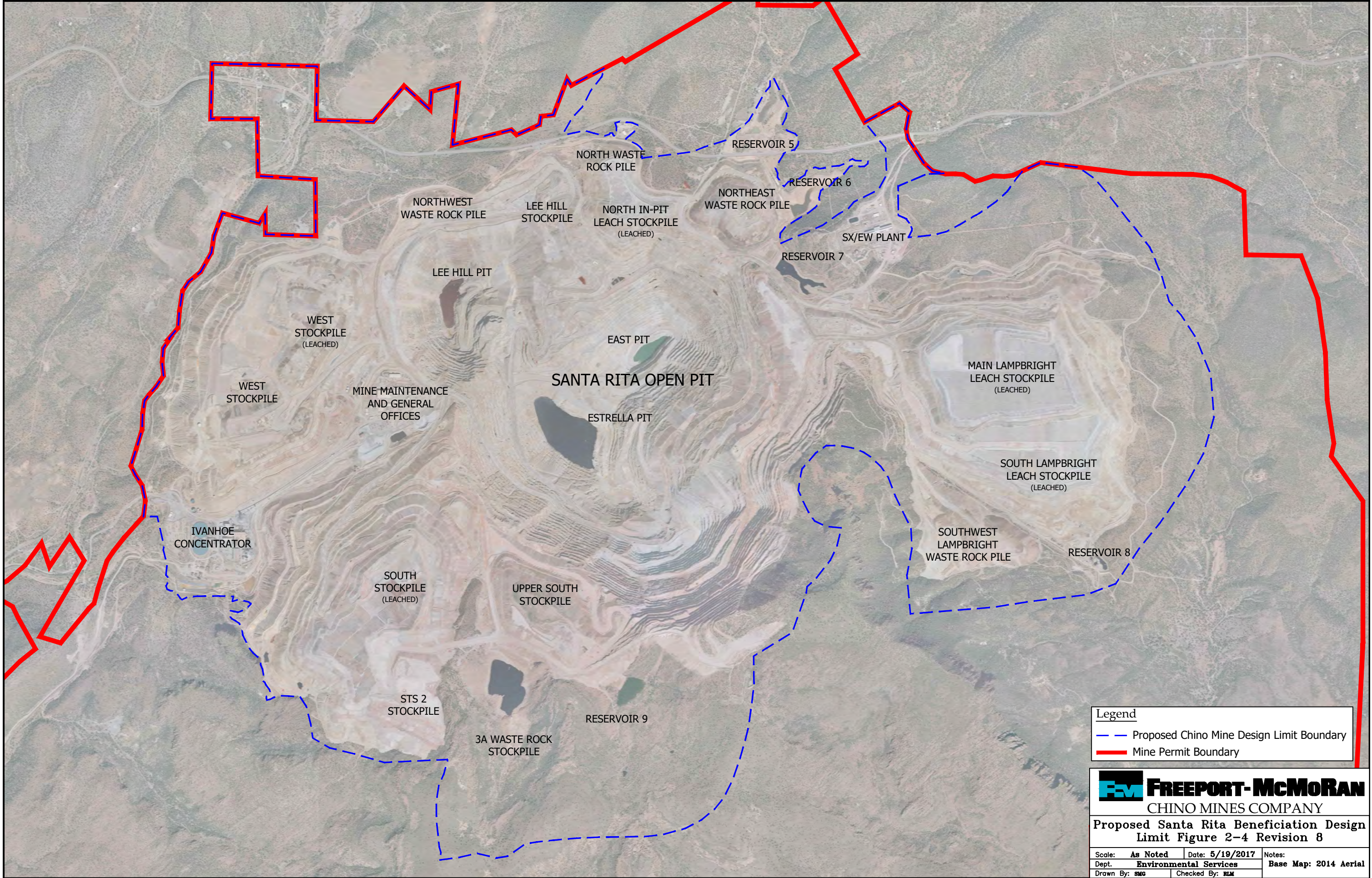
SBK: ml

Enclosures

20240626-002

## **Chino Mine Design Limits**

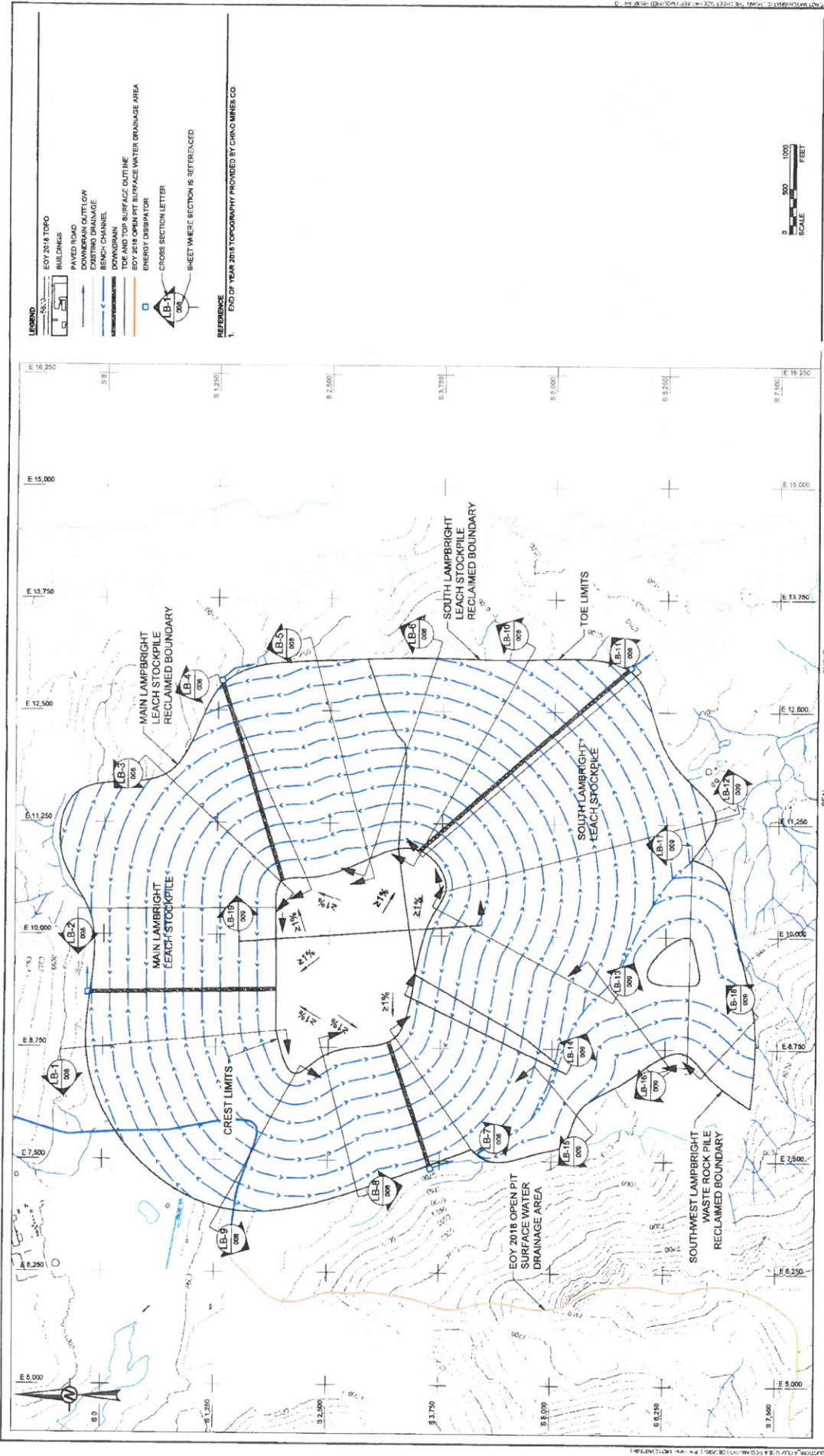






**Reclamation Design Drawing No. 7,  
Chino CCP Appendix A**





<b>PROJECT</b> CLOSURE/CLOSEOUT PLAN UPDATE CHINO MINES COMPANY GRANT COUNTY, NEW MEXICO		<b>CLIENT</b> CHINO MINES COMPANY CONSULTANT GOLDER ASSOCIATES DENVER OFFICE 44 Union Boulevard, Suite 300 Lakewood, Colorado (303) 980-0540 www.golder.com	
<b>TITLE</b> LAMBRIGHT STOCKPILE GRADING AND DRAINAGE PLAN		<b>FIGURE</b> 6 of 30 007	
<b>PROJECT No</b> 1401129		<b>Rev.</b> C	

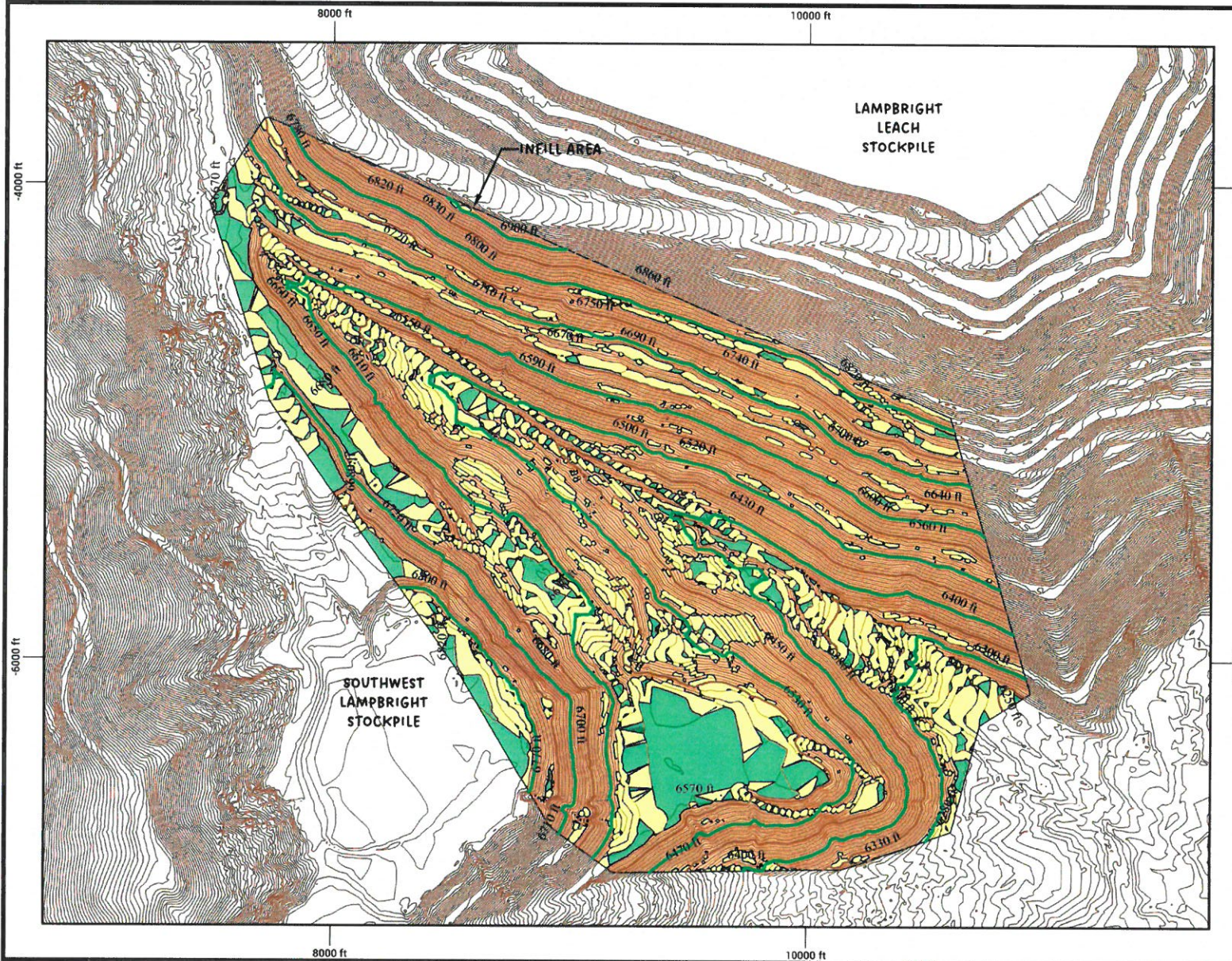
  

C 2014-04-12 Rev. 11/14/12-00	INCORPORATE CLIENT COMMENTS & ISSUE FOR CLIENT REVIEW DESCRIPTION	DET PREPARED	DET DESIGN	TWF REVIEW	BRB APPROVED
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**Closure Design of SW Waste Rock Stockpile  
Before and After Buttress**





NOTES:

0-5%	14 Acres
5-33%	38 Acres
>33%	92 Acres



FIGURE 1  
SW AND LAMPBRIGHT BUTTRESS  
PRE-PLACEMENT

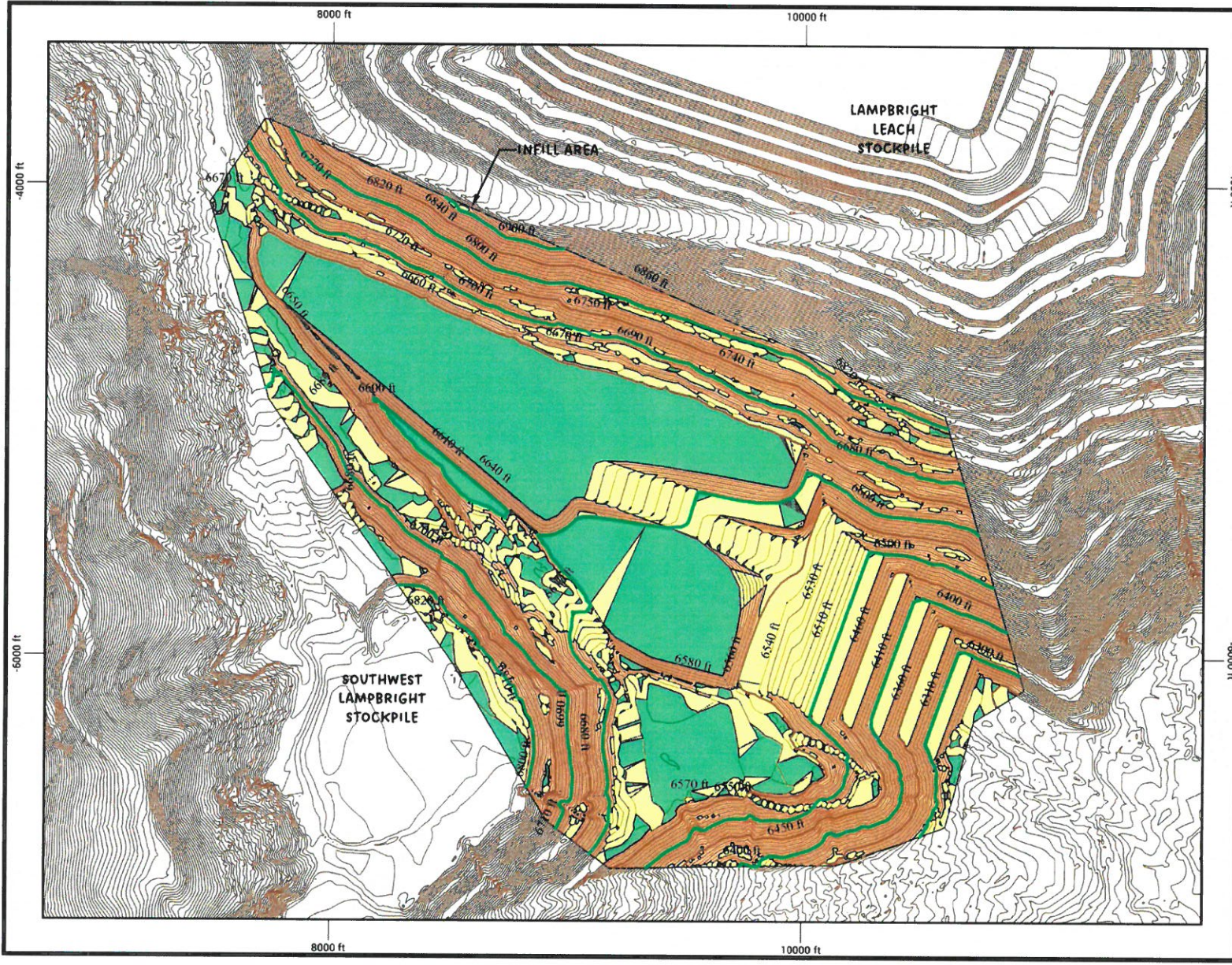
PREPARED BY:

**TELESTO**  
SOLUTIONS INCORPORATED

PREPARED FOR:

**Fm FREEPORT-McMoRAN**





**NOTES:**

<span style="display: inline-block; width: 20px; height: 10px; background-color: #00b050; border: 1px solid black;"></span>	0-5%
<span style="display: inline-block; width: 20px; height: 10px; background-color: #ffff00; border: 1px solid black;"></span>	5-33%
<span style="display: inline-block; width: 20px; height: 10px; background-color: #ff9900; border: 1px solid black;"></span>	>33%
	42 Acres
	37 Acres
	65 Acres



**FIGURE 2**  
**SW AND LAMPBRIGHT BUTTRESS**  
**POST-PLACEMENT**

PREPARED BY:

**TELESTO**  
SOLUTIONS INCORPORATED

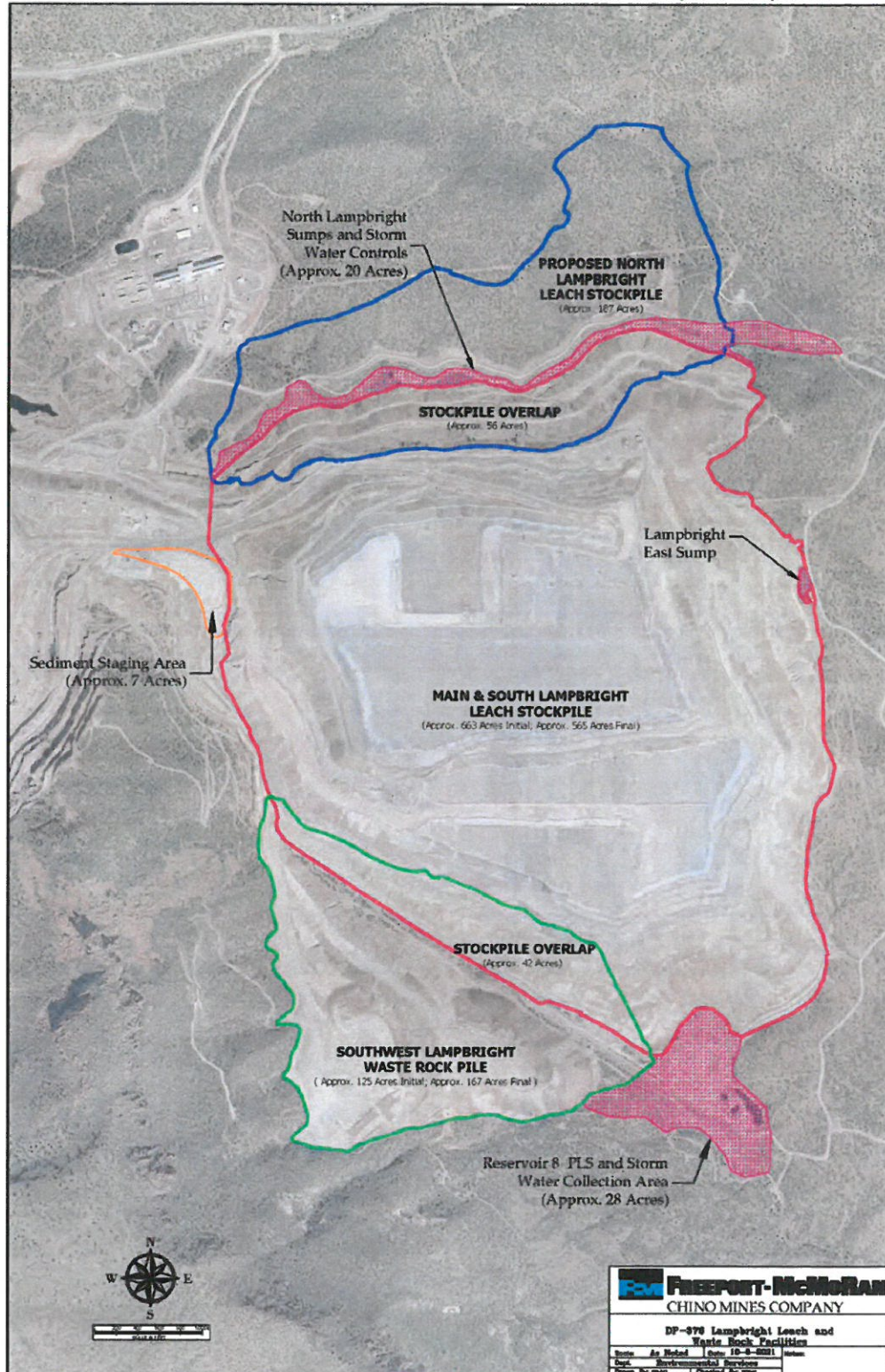
PREPARED FOR:

**Freeport-McMoRan**

**DP-376 Map of SW Waste Rock Stockpile  
including Buttress**



**Figure 1 – Authorized DP-376 Leach and Waste Rock Stockpile Footprints**



**Knight Piesold Consulting Design of the Southwest  
Lampbright Waste Rock Stockpile Buttress/ Infill**



**FREEPORT-MCMORAN CHINO MINES COMPANY**  
**CHINO MINE**  
**GRANT COUNTY, NEW MEXICO, USA**

**DAM EIGHT WASTE ROCK STOCKPILE**  
**DETAILED DESIGN**

DRAWINGS INDEX			
DRAWING NUMBER	DRAWING TITLE	REVISION	REVISION DATE
000	COVER SHEET	B	12/20/2023
005	PROJECT LOCATION MAP	B	12/20/2023
050	OVERALL SITE PLAN	B	12/20/2023
060	EXISTING CONDITIONS PLAN	B	12/20/2023
100	DAM EIGHT WASTE ROCK STOCKPILE GENERAL LAYOUT	C	12/20/2023
102	DAM EIGHT WASTE ROCK STOCKPILE TYPICAL SECTION	C	12/20/2023
106	BUTTRESS FOUNDATION EXCAVATION PLAN	C	12/20/2023
110	BUTTRESS GENERAL LAYOUT	C	12/20/2023
116	UNDERDRAIN PLAN	B	12/20/2023
118	UNDERDRAIN PROFILE	B	12/20/2023
120	RESIDUAL SEEPAGE COLLECTION BUMP PLAN, PROFILE, DETAIL, AND SECTION	B	12/20/2023
125	TYPICAL SECTIONS AND DETAILS	B	12/20/2023
130	IMPACTED STORMWATER DIVERSION CHANNEL PLAN	B	12/20/2023
132	WEST IMPACTED STORMWATER DIVERSION CHANNEL PLAN AND PROFILE (1 OF 2)	B	12/20/2023
133	WEST IMPACTED STORMWATER DIVERSION CHANNEL PLAN AND PROFILE (2 OF 2)	B	12/20/2023
134	WEST IMPACTED STORMWATER DIVERSION CHANNEL HORIZONTAL CONTROL DATA	B	12/20/2023
136	WEST IMPACTED STORMWATER DIVERSION CHANNEL SECTIONS	B	12/20/2023
138	EAST IMPACTED STORMWATER DIVERSION CHANNEL PLAN AND PROFILE	B	12/20/2023
137	EAST IMPACTED STORMWATER DIVERSION CHANNEL HORIZONTAL CONTROL DATA	B	12/20/2023
139	EAST IMPACTED STORMWATER DIVERSION CHANNEL SECTIONS	B	12/20/2023
146	IMPACTED STORMWATER DIVERSION CHANNEL DETAILS	B	12/20/2023

**ISSUED FOR REVIEW**  
**DECEMBER 20, 2023**

Prepared for:  
**FREEPORT-MCMORAN**  
**CHINO MINES COMPANY**

**PHYSICAL:**  
**99 SANTA RITA MINE ROAD**  
**VANADIUM, NEW MEXICO**  
**USA, 88023**

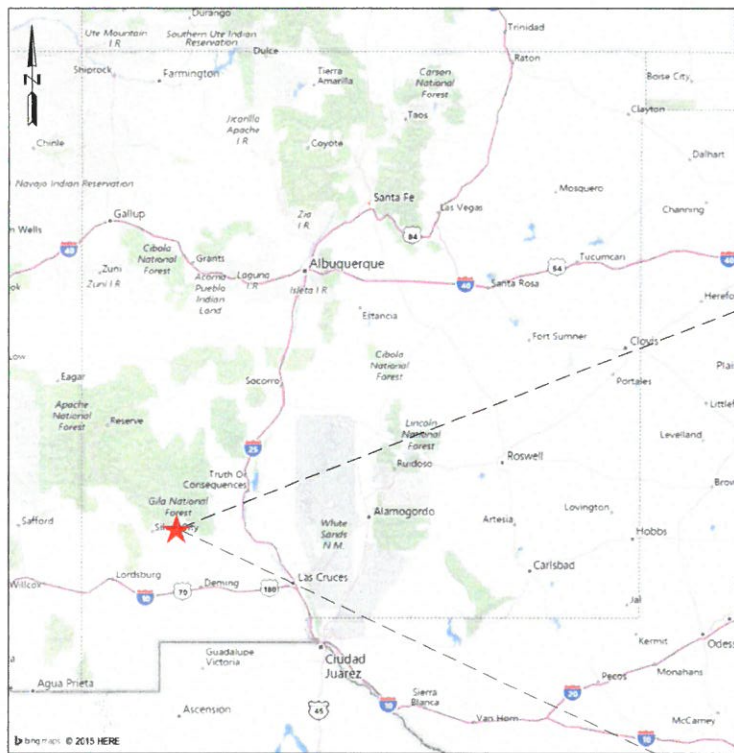
**MAILING:**  
**P.O. BOX 10**  
**BAYARD, NEW MEXICO**  
**USA, 88023**

Prepared by:

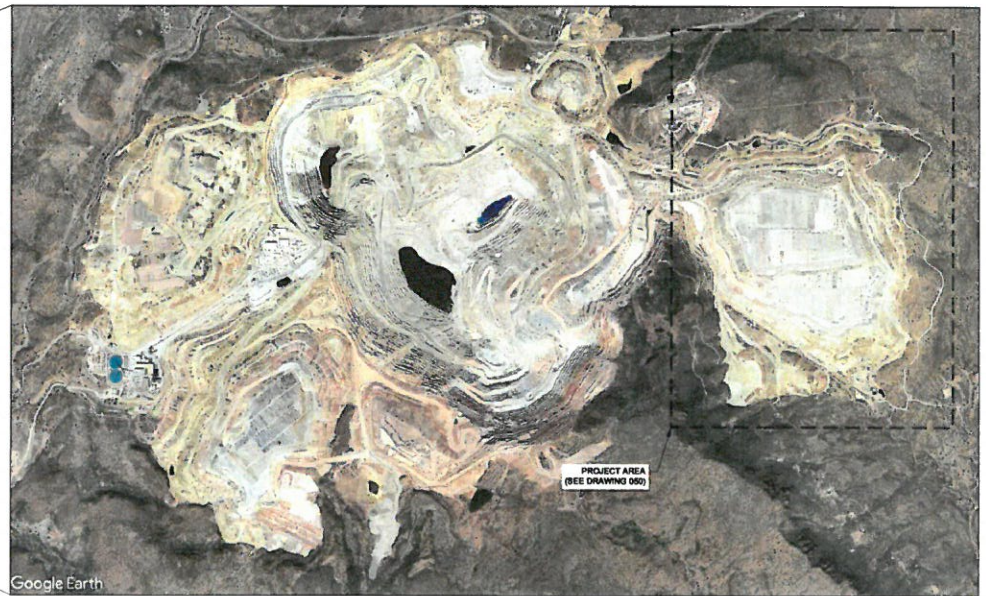


1999 Broadway, Suite 900  
Denver, Colorado 80202  
3275 West Ina Road, Suite 109  
Tucson, Arizona 85741

460 West Silver Street, Suite 106  
Elko, Nevada 89801



STATE OF NEW MEXICO  
NT8



**PROJECT LOCATION MAP**

REV	DATE	DESCRIPTION	APPROVED	CHECKED	DECLARATION
A	1/21/2023	ISSUED FOR INTERNAL REVIEW	ME	JA	KNIGHT PERIOD AND CO. PRODUCED THE DATA SHOWN HEREON USING BOTH TECHNICAL INFORMATION AND METHODS. RECEIPT OF THIS DRAWING DOES NOT IMPLY THAT THE RECURRENT ANY NOTATIONS OR TECHNICAL INFORMATION ON THIS DRAWING IS ANY ADAPTATION OR MODIFICATION OF THE DATA OR DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY (LEGAL EXPOSURE TO KNIGHT PERIOD AND CO.
B	1/22/2023	ISSUED FOR REVIEW	ME	JA	
—	—	—	—	—	
—	—	—	—	—	

**FREEPORT-MCMORAN CHINO MINES COMPANY**



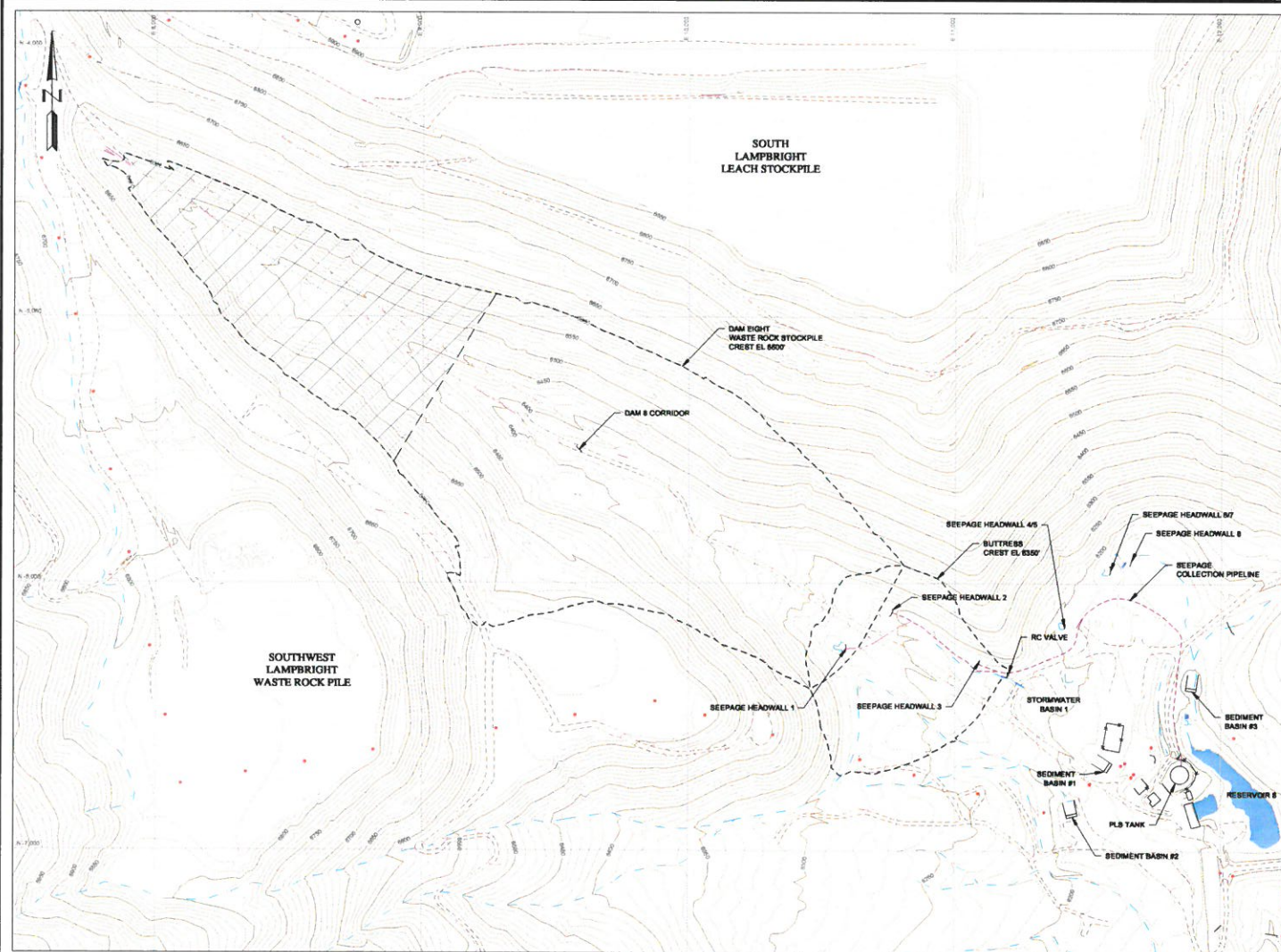
PROJECT				CHINO DAM & WASTE ROCK STOCKPILE			
TITLE							
PROJECT LOCATION MAP							
DESIGNED BY		RD	LOCATION	PROJECT NUMBER	DRAWING NUMBER	REVISION	
DRAWN BY		JA	TU101	00636.09	005	B	







LAST SAVED BY: HENRICK  
LAST SAVED ON: 12/20/2023 8:01 AM  
PRINTED BY: RICHARD BENDIS  
PRINT TIME: 12/20/2023 8:01 AM



#### LEGEND:

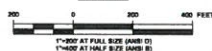
- EXISTING GROUND SURFACE CONTOUR AND EL. FEET
- EXISTING DRAINAGE
- EXISTING ROAD
- EXISTING POWERPOLE
- EXISTING BUILDINGS AND INFRASTRUCTURE
- WASTE ROCK STAGING AREA (SEE NOTE 2)

#### NOTES:

- SCALE BAR MEASURES 3" ON A FULL SIZE PLOT (ANSI-D) AND 1.5" ON A HALF SIZE PLOT (ANSI-B).
- WASTE ROCK STAGING AREA REQUIRES NO PRIOR PREPARATION AND MAY BE USED AS SOON AS PERMITTED BY THE STATE.

REFERENCE:  
- EXISTING TOPOGRAPHY PROVIDED BY FREEPORT-MCMORAN CHINO MINES COMPANY ON 10/11/14 & 10/11/15  
- SURVEYS, RE-SURVEYS AND LIMITED STATIS BIOLOGICAL SURVEYS (ACQUISITION 2023/2024)  
- KNIGHT PIESOLD WASTE STOCKPILE LIMITS PROVIDED BY FREEPORT-MCMORAN CHINO MINES COMPANY ON 07/13/15  
- COORDINATE SYSTEM: LOCAL MINE (LMS)

#### PLAN



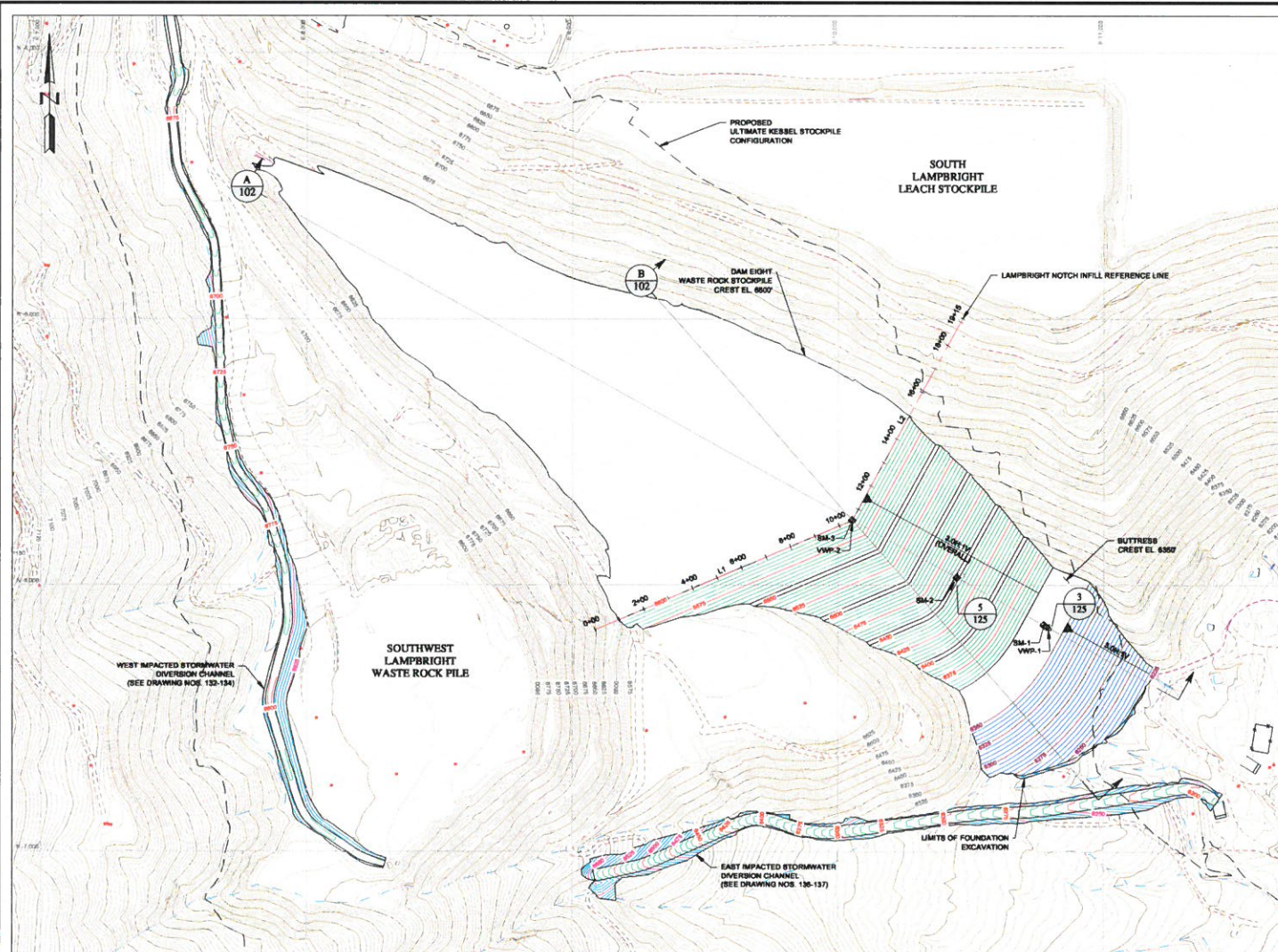
REV	DATE	DESCRIPTION	APPROVED	DISCLAIMER	CLIENT
A	10/13/2023	ISSUED FOR INTERNAL REVIEW	JA	KNIGHT PIESOLD AND CO. PRODUCE THE DATA SHOWN HEREON USING BOTH TECHNICAL INFORMATION AND METHODS. RECEIPT OF THIS DRAWING DOES NOT IMPLY THE RECIPIENT ANY RIGHTS TO SUCH TECHNICAL INFORMATION OR METHODS. ANY ADAPTATION OR MODIFICATION OF THE DATA ON DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO KNIGHT PIESOLD AND CO.	FREEPORT-MCMORAN CHINO MINES COMPANY
B	12/20/2023	ISSUED FOR REVIEW	JA		

FREEPORT-MCMORAN CHINO MINES COMPANY



PROJECT				
CHINO DAM # WASTE ROCK STOCKPILE				
TITLE				
EXISTING CONDITIONS PLAN				
DESIGNED BY	HS	LOCATION	TU101	REVISION
DRAWN BY	JA	PROJECT NUMBER	00636.09	B
		DRAWING NUMBER	060	





#### LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL. FEET
- REGRADED GROUND SURFACE CONTOUR AND EL. FEET
- PROPOSED BUTTRESS SURFACE CONTOUR AND EL. FEET
- EXCAVATED GROUND SURFACE CONTOUR AND EL. FEET
- EXISTING DRAINAGE
- EXISTING ROAD
- + EXISTING POWERPOLE
- EXISTING BUILDINGS AND INFRASTRUCTURE
- ▲ VWP-1 PROPOSED VIBRATING WIRE PIEZOMETER LOCATION
- ◆ SM-1 PROPOSED SURVEY MONUMENT LOCATION

TABLE 1  
LAMPBRIGHT NOTCH INFILL  
REFERENCE LINE  
HORIZONTAL CONTROL DATA

ID	STATION	NORTHING (ft)	EASTING (ft)	RADIUS (ft)
L1	0+00.0 10+53.1	-5,100.0 -5,755.4	9,094.3 10,052.7	
L2	10+53.1 19+15.2	-5,755.4 -4,909.4	10,052.7 10,487.3	

TABLE 2  
PROPOSED INSTRUMENTATION COORDINATES

INSTRUMENT NAME	NORTHING (ft)	EASTING (ft)	ELEVATION (ft)
SM-1	-5,150.94	10,773.90	6360.00
SM-2	-5,971.85	10,447.15	6450.00
SM-3	-5,755.38	10,052.72	6600.00
VWP-1	-5,180.45	10,791.44	6249.99
VWP-2	-5,755.35	10,052.72	6358.99

#### NOTES:

- SCALE BAR MEASURES 3" ON A FULL SIZE PLOT (ANSI-D) AND 1.5" ON A HALF SIZE PLOT (ANSI-B).
- WASTE ROCK STOCKPILE SURFACE WILL BE GRADED TO DRAIN WATER TOWARDS THE SOUTHEAST FACE OF THE BUTTRESS.

REFERENCE:  
1. KEY AND TOPOGRAPHY PROVIDED BY FREEPORT-MCMORAN CHINO MINES COMPANY ON 10/26/18 & 2021 (2014 & 2020 SURVEYS, RESPECTIVELY) AND UNITS: STATION (GEODESIC SURVEY ACCESS/2011)  
2. KERNEL WASTE ROCK STOCKPILE LIMITS PROVIDED BY FREEPORT-MCMORAN CHINO MINES COMPANY ON 10/26/18  
3. CLOSURE STATE SYSTEM, LOCAL MENT QND

#### PLAN



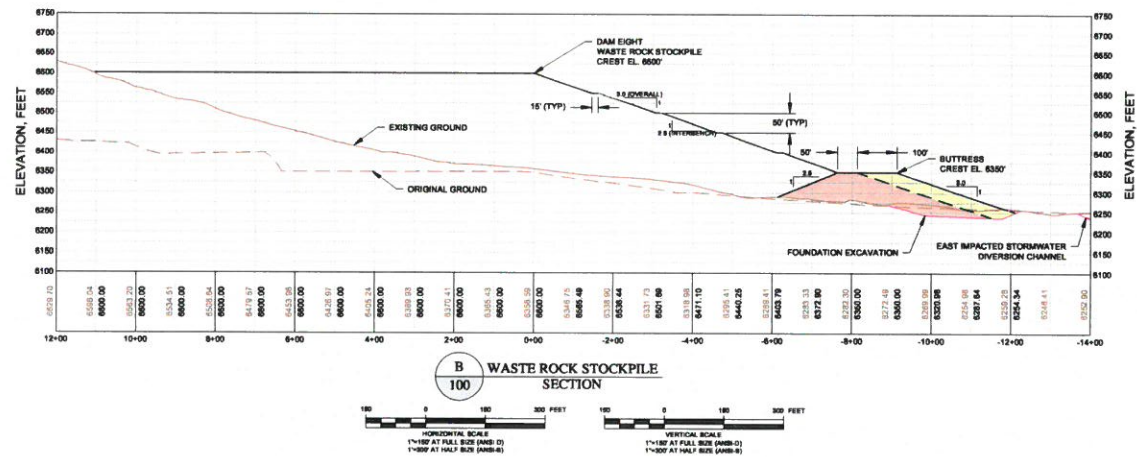
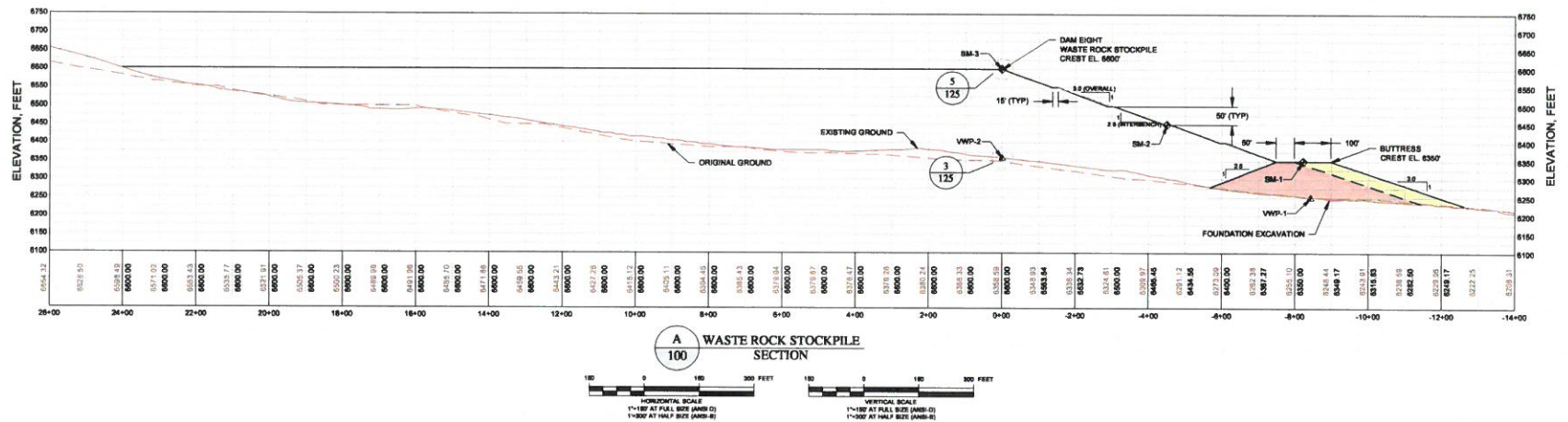
REV	DATE	DESCRIPTION	APPROVED
A	06/09/2023	PRELIMINARY	JB
B	06/07/2023	ISSUED FOR REVIEW	JB
C	10/29/2023	ISSUED FOR REVIEW	JB

DISCLAIMER  
KNIGHT PIESOLD AND CO. PRODUCED THE DATA SHOWN HEREON USING BOTH TECHNICAL INFORMATION AND METHODS. RECEIPT OF THIS DRAWING DOES NOT IMPLY TO THE HOLDER ANY RIGHTS TO SUCH TECHNICAL INFORMATION OR METHODS. ANY ADAPTATION OR MODIFICATION OF THE DATA OR DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO KNIGHT PIESOLD AND CO.

FREEPORT-MCMORAN CHINO MINES COMPANY



PROJECT	CHINO DAM 8 WASTE ROCK STOCKPILE
TITLE	DAM EIGHT WASTE ROCK STOCKPILE GENERAL LAYOUT
DESIGNED BY	JB
DRAWN BY	JA
LOCATION	TU101
PROJECT NUMBER	00636.09
DRAWING NUMBER	100
REVISION	C



#### LEGEND:

- EXISTING GROUND PROFILE
- FOUNDATION EXCAVATION PROFILE
- DAM EIGHT PROPOSED DESIGN PROFILE
- ▲ VWP-1 PROPOSED VIBRATING WIRE PIEZOMETER LOCATION
- ◆ SM-1 PROPOSED SURVEY MONUMENT LOCATION
- ELEVATION OF EXISTING GROUND SURFACE AND ESTIMATED TOP OF BUTTRESS AND WASTE ROCK STOCKPILE AT SPECIFIC STATION (FEET)
- WASTE ROCK FILL ZONE (SEE NOTE 2)
- WASTE ROCK ZONE (SEE NOTE 3)

#### NOTES:

1. SCALE BAR MEASURES 3" ON A FULL SIZE PLOT (ANSI-D) AND 1.5" ON A HALF SIZE PLOT (ANSI-B).
2. BUTTRESS FILL ZONE TO BE PLACED PER THE TECHNICAL SPECIFICATIONS.
3. WASTE ROCK ZONE HAS NO TECHNICAL SPECIFICATION AND MAY BE PLACED BY CONTRACTOR FLEET OR MINE EQUIPMENT.

REV	DATE	DESCRIPTION	APPROVED	DATE
A	06/09/2023	PRELIMINARY	NE	JA
B	06/27/2023	ISSUED FOR REVIEW	NE	JA
C	10/20/2023	ISSUED FOR REVIEW	NE	JA

APPROVED	DATE	DESCRIPTION
NE	JA	KNIGHT PIÉSOLED AND/OR ITS PROVIDER(S) THE DATA BETWEEN HEREIN OR LEGENDS BOTH TECHNICAL INFORMATION AND METHODS. RECEIPT OF THIS DRAWING DOES NOT IMPLY TO THE PROVIDER(S) ANY LIABILITY TO SUCH TECHNICAL INFORMATION OR METHODS. ANY ADAPTATION OR MODIFICATION OF THE DATA ON DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO KNIGHT PIÉSOLED AND CO.

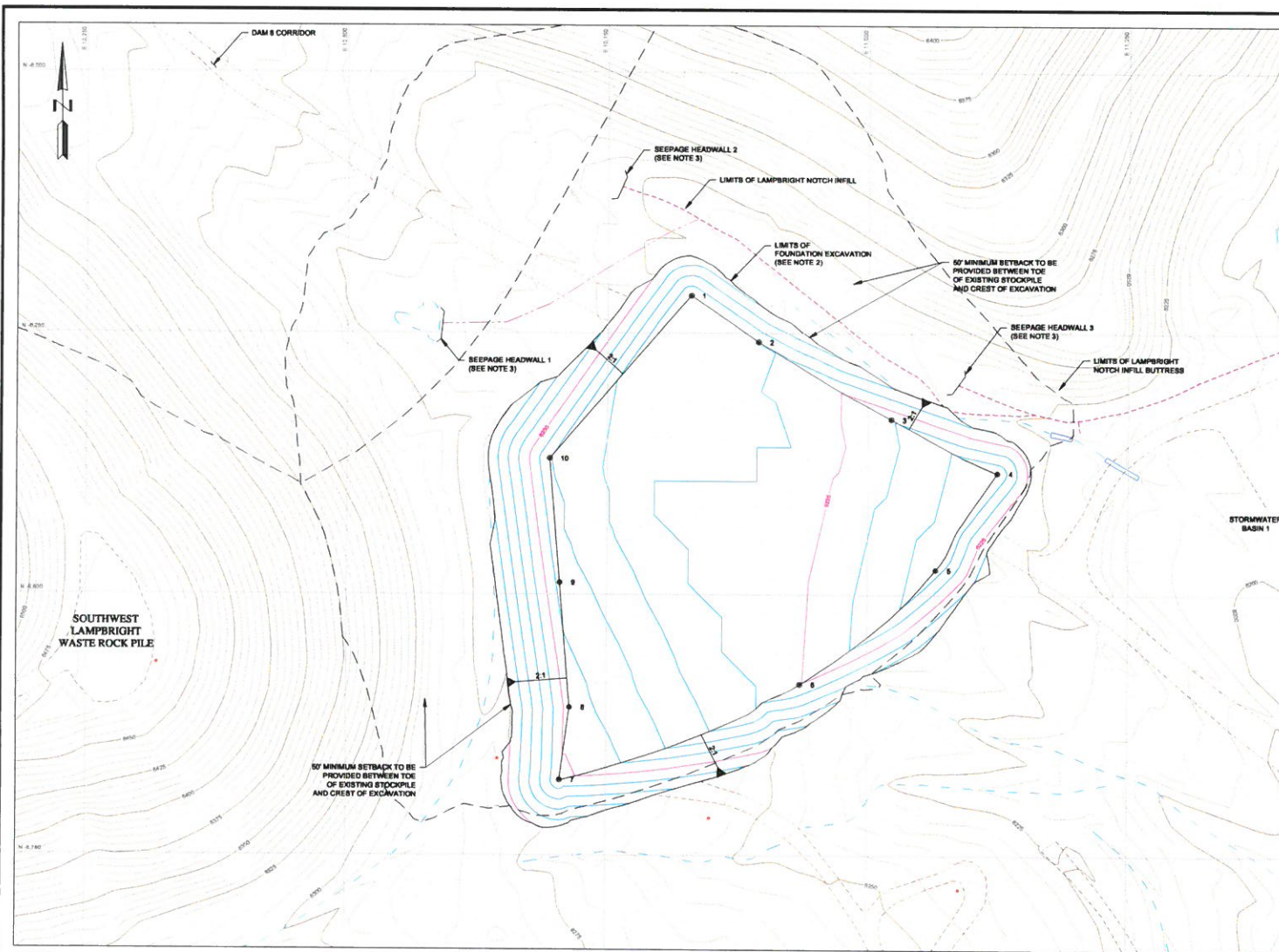
FREEPORT-MCMORAN CHINO MINES COMPANY



PROJECT	CHINO DAM 8 WASTE ROCK STOCKPILE
TITLE	DAM EIGHT WASTE ROCK STOCKPILE TYPICAL SECTION
DESIGNED BY	NE
DRAWN BY	JA
LOCATION	TU101
PROJECT NUMBER	00636.09
DRAWING NUMBER	102
REVISION	C



LAST REVISED: 12/20/2023 9:05 AM  
DRAWING DATE: 12/20/2023 9:05 AM  
PRINTED BY: RICHARD BUCKLEY  
PROJECT: CHINO DAM 8 WASTE ROCK STOCKPILE  
DRAWING: BUTTRESS FOUNDATION EXCAVATION PLAN  
FILE: C:\0636\09\105\CHINO DAM 8 WASTE ROCK STOCKPILE\BUTTRESS FOUNDATION EXCAVATION PLAN.dwg



- LEGEND:**
- EXISTING GROUND SURFACE CONTOUR AND EL. FEET
  - PROPOSED EXCAVATION SURFACE CONTOUR AND EL. FEET
  - EXISTING DRAINAGE
  - EXISTING ROAD
  - EXISTING POWERPOLES
  - EXISTING BUILDINGS AND INFRASTRUCTURE
  - SETTING OUT DATA POINT

TABLE 3 BUTTRESS FOUNDATION EXCAVATION SETTING OUT DATA				
POINT #	NORTHING (ft)	EASTING (ft)	ELEVATION (ft)	DESCRIPTION
1	-6,214.2	10,829.7	6,230.2	1
2	-6,268.7	10,894.3	6,230.0	2
3	-6,332.2	11,022.2	6,220.4	3
4	-6,385.4	11,124.3	6,210.4	4
5	-6,476.6	11,065.2	6,212.3	5
6	-6,686.2	10,835.4	6,225.3	6
7	-6,878.3	10,705.1	6,280.8	7
8	-6,608.8	10,714.6	6,247.6	8
9	-6,489.3	10,704.6	6,243.9	9
10	-6,370.0	10,694.7	6,240.3	10

- NOTES:**
- SCALE BAR MEASURES 3" ON A FULL SIZE PLOT (ANSI-D) AND 1.5" ON A HALF SIZE PLOT (ANSI-B).
  - FOUNDATION SHALL BE EXCAVATED TO (AT MINIMUM) HIGHLY WEATHERED BEDROCK OR AS APPROVED BY THE ENGINEER. FOUNDATION DEPTH WILL BE BASED ON CONDITIONS ENCOUNTERED DURING EXCAVATION. EXCAVATION SLOPES SHALL BE NO STEEPER THAN 2H:1V OR AS APPROVED BY THE ENGINEER. IF SOFT SOILS OR SEEPAGE IS OBSERVED DURING EXCAVATION, SHALLOWER SLOPES MAY BE REQUIRED.
  - EXISTING SEEPAGE HEADWALLS TO BE BACKFILLED WITH DRAINAGE GRAVEL PRIOR TO PLACEMENT OF WASTE ROCK AND/OR BUTTRESS FILL.

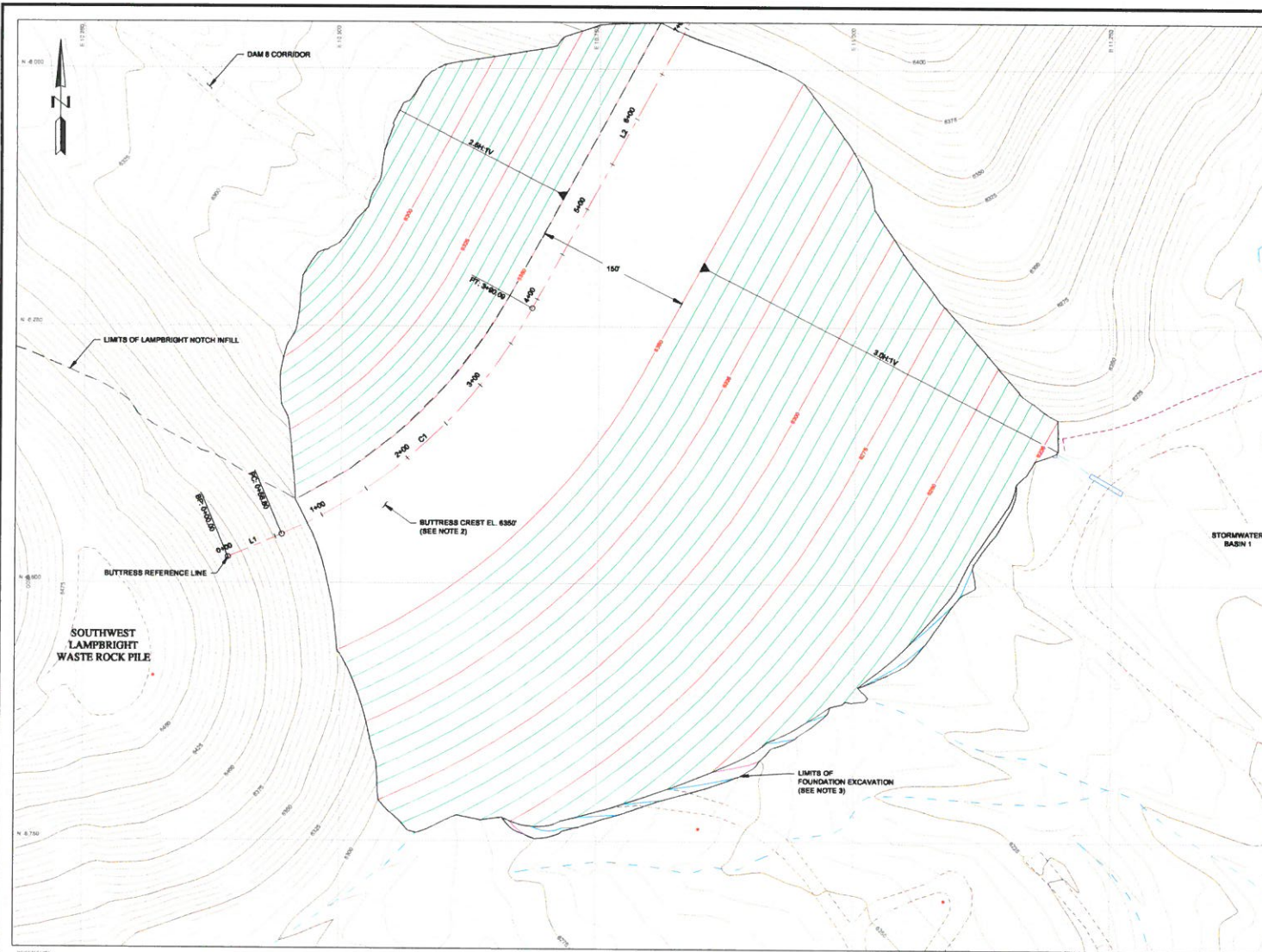
REV	DATE	DESCRIPTION	APPROVED	DISCLAIMER
A	08/09/2023	PRELIMINARY	NS	KNIGHT PIOLSOLD AND CO. PROVIDES THE DATA SHOWN HEREON USING BOTH TECHNICAL INFORMATION AND METHODS. RECEIPT OF THIS DRAWING DOES NOT IMPART TO THE RECIPIENT ANY RIGHTS TO SUCH TECHNICAL INFORMATION OR METHODS. ANY ADAPTATION OR MODIFICATION OF THE DATA OR DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO KNIGHT PIOLSOLD AND CO.
B	06/07/2023	ISSUED FOR REVIEW	NS	
C	12/20/2023	ISSUED FOR REVIEW	NS	

CLIENT: FREEPORT-MCMORAN CHINO MINES COMPANY



PROJECT: CHINO DAM 8 WASTE ROCK STOCKPILE				
TITLE: BUTTRESS FOUNDATION EXCAVATION PLAN				
DESIGNED BY	NS	LOCATION	TU101	PROJECT NUMBER
DRAWN BY	JA			DRAWING NUMBER
				105
				REVISION
				C

LAST REVISED BY: J. K. BROWN  
DRAWING DATA: Knight Piesold  
PRINTED BY: J. K. BROWN  
DATE: 12/20/2023 9:52 AM



#### LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL. FEET
- PROPOSED GROUND SURFACE CONTOUR AND EL. FEET
- PROPOSED EXCAVATION SURFACE CONTOUR AND EL. FEET
- EXISTING DRAINAGE
- EXISTING ROAD
- EXISTING POWERPOLES
- EXISTING BUILDINGS AND INFRASTRUCTURE

TABLE 4  
BUTTRUSS REFERENCE LINE  
HORIZONTAL CONTROL DATA

ID	STATION	NORTHING (ft)	EASTING (ft)	RADIUS (ft)
L1	0+00.0 0+56.8	-4,451.2 -4,428.9	10,390.3 10,442.5	
C1	0+56.8 3+00.1	-8428.9 -8208.1	10442.5 10684.9	501
L2	3+00.1 7+00.8	-8,208.1 -8,866.1	10,684.9 10,878.1	

#### NOTES:

- SCALE BAR MEASURES 2" ON A FULL SIZE PLOT (ANSI-D) AND 1.8" ON A HALF SIZE PLOT (ANSI-B).
- BUTTRUSS FILL MATERIAL SHALL BE PLACED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
- FOUNDATION EXCAVATION TO BE BACKFILLED AND GRADED TO NATURAL GROUND FOLLOWING TOE BUTTRUSS CONSTRUCTION.

REFERENCES:  
1. EXISTING TOPOGRAPHY PROVIDED BY FREEPORT-MCMORAN CHINO MINES COMPANY ON 10/19/18 & 2019 DATA & 2020 BUREAU OF SURVEYING (BOS) LIMITED SURVEY DATA (UNCLASSIFIED) (2020/11/18)  
2. EXISTING ROAD, POWERPOLES & INFRASTRUCTURE PROVIDED BY FREEPORT-MCMORAN CHINO MINES COMPANY ON 10/19/18  
3. COORDINATE SYSTEM: LOCAL NAD 83



REV	DATE	DESCRIPTION	APPROVED	DISCLAIMER	CLIENT
A	08/09/2023	PRELIMINARY	JB	KNIGHT PIESOLD AND ITS CONSULTANTS DO NOT PROVIDE THE DATA SHOWN HEREON USING BOTH TECHNICAL INFORMATION AND METHODS. RECEIPT OF THIS DRAWING DOES NOT IMPLY TO THE RECIPIENT ANY RIGHTS TO SUCH TECHNICAL INFORMATION OR METHODS. ANY ADAPTATION OR MODIFICATION OF THE DATA ON DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO KNIGHT PIESOLD AND ITS CONSULTANTS.	FREEPORT-MCMORAN CHINO MINES COMPANY
B	09/07/2023	ISSUED FOR REVIEW	JB		
C	12/20/2023	ISSUED FOR REVIEW	JB		

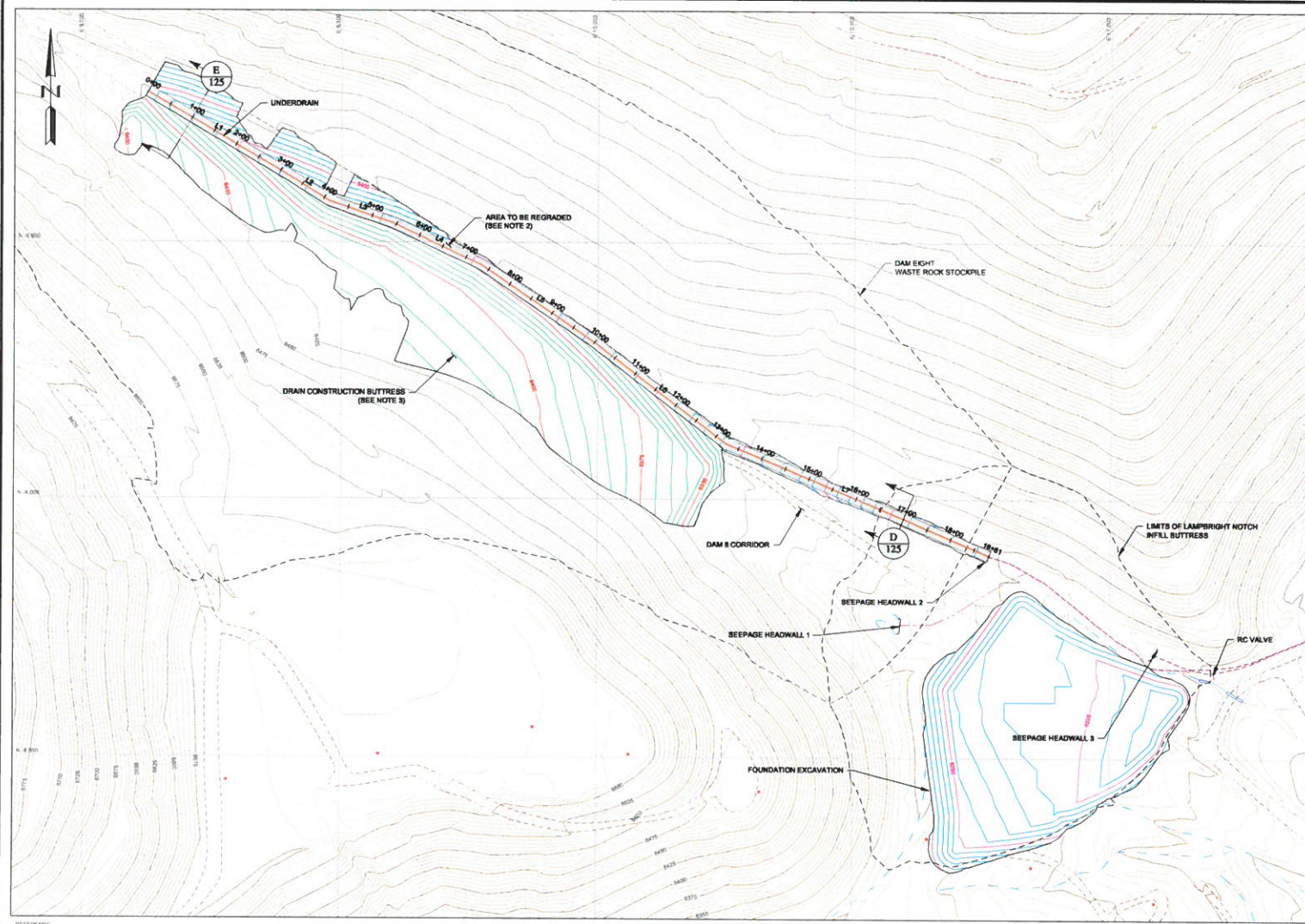
FREEPORT-MCMORAN CHINO MINES COMPANY



PROJECT	CHINO DAM 8 WASTE ROCK STOCKPILE			
TITLE	BUTTRUSS GENERAL LAYOUT			
DESIGNED BY	JB	LOCATION	TU101	REVISION
DRAWN BY	JB	PROJECT NUMBER	00636.09	C
		DRAWING NUMBER	110	



LAST REVISED: 11/15/2023  
DRAWN BY: JAH  
CHECKED BY: JAH  
PRINTED BY: JAH  
DATE: 11/15/2023 9:52 AM



LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL. FEET
- PROPOSED EXCAVATION CONTOUR AND EL. FEET
- EXISTING DRAINAGE
- EXISTING ROAD
- EXISTING POWERPOLE
- EXISTING BUILDINGS AND INFRASTRUCTURE
- PROPOSED UNDERDRAIN
- AREA TO BE REGRADED

TABLE 5  
UNDERDRAIN CENTERLINE  
HORIZONTAL CONTROL DATA

ID	STATION	NORTHING (ft)	EASTING (ft)	RADIUS (ft)
L1	0+00.0	-5,219.4	9,123.9	
	3+06.4	-5,365.5	9,387.1	
L2	4+12.0	-5,365.5	9,387.1	
	6+43.0	-5,420.9	9,477.1	
L3	7+32.0	-5,420.9	9,477.1	
	9+99.1	-5,463.4	9,801.5	
L4	10+00.0	-5,463.4	9,801.5	
	12+23.4	-5,544.0	9,772.9	
L5	13+23.4	-5,544.0	9,772.9	
	15+23.4	-5,544.0	9,772.9	
L6	16+80.7	-5,890.9	10,250.3	
	18+80.7	-5,890.9	10,250.3	

NOTES:

- SCALE BAR MEASURES 3" ON A FULL SIZE PLOT (ANSI-D) AND 1" ON A HALF SIZE PLOT (ANSI-B).
- FOUNDATION PREPARATION FOR THE UNDERDRAIN WILL CONSIST OF GRADING AND SMOOTHING THE AREAS BELOW THE UNDERDRAIN. EXCAVATION WILL BE LIMITED TO REDUCE THE RISK OF UNDERMINING THE EXISTING STOCKPILE SLOPES.
- FOUNDATION PREPARATION FOR THE DRAIN CONSTRUCTION BUTTRESS WILL CONSIST OF LIMITED REMOVAL OF EXISTING VEGETATION. DRAIN CONSTRUCTION BUTTRESS WILL BE CONSTRUCTED FROM WASTE ROCK AND HAS NO PLACEMENT SPECIFICATIONS BUT WILL BE PLACED IN A MANNER THAT DOES NOT DISTURB CONSTRUCTION OF THE UNDERDRAIN.

PLAN



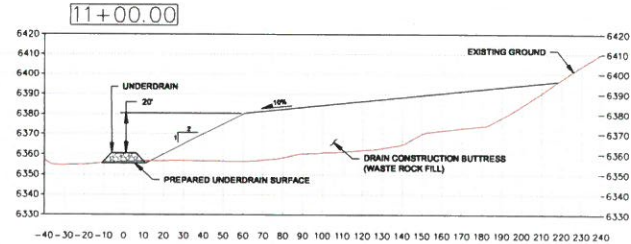
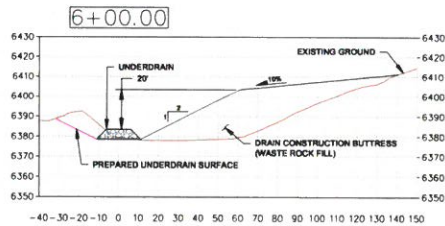
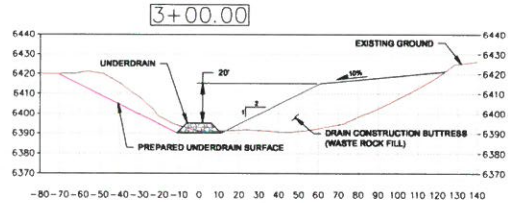
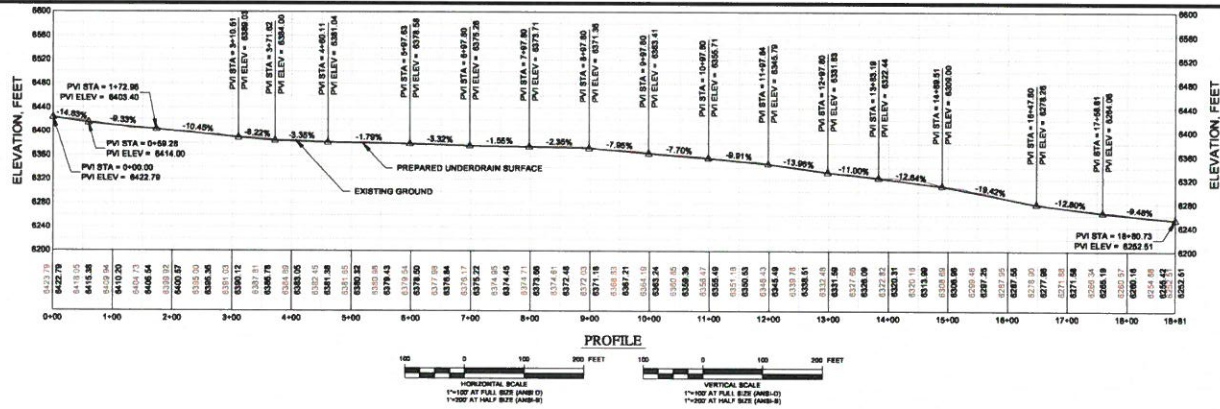
REV	DATE	DESCRIPTION	APPROVED
A	10/18/2023	ISSUED FOR INTERNAL REVIEW	JAH
B	11/09/2023	ISSUED FOR REVIEW	JAH
—	—	—	—

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CLIENT  
FREEPORT-MCMORAN CHINO MINES COMPANY  
Knight Piesold  
CONSULTING

PROJECT		CHINO DAM 8 WASTE ROCK STOCKPILE			
TITLE		UNDERDRAIN PLAN			
DESIGNED BY	MS	LOCATION	PROJECT NUMBER	DRAWING NUMBER	REVISION
DRAWN BY	JA	TU101	00636.09	115	R

C:\Users\jw\Documents\Freeport-McMoran\CHINO DAM 8 WASTE ROCK STOCKPILE\CHINO DAM 8 WASTE ROCK STOCKPILE.dwg  
 C:\Users\jw\Documents\Freeport-McMoran\CHINO DAM 8 WASTE ROCK STOCKPILE\CHINO DAM 8 WASTE ROCK STOCKPILE.dwg  
 PRINTED BY: RICHARD BUCKA PRINT TIME: 12/20/2023 8:02 AM



**DRAIN CONSTRUCTION BUTTRESS SECTIONS**



**LEGEND:**



ELEVATION OF EXISTING GROUND SURFACE AND TOP OF REGRADED GROUND SURFACE AT SPECIFIC STATION

**NOTES:**

- SCALE BAR MEASURES 1" ON A FULL SIZE PLOT (ANSI-D) AND 1/2" ON A HALF SIZE PLOT (ANSI-B).

REV	DATE	DESCRIPTION	APPROVED
A	1/20/2023	ISSUED FOR INTERNAL REVIEW	JB
B	1/20/2023	ISSUED FOR REVIEW	JB

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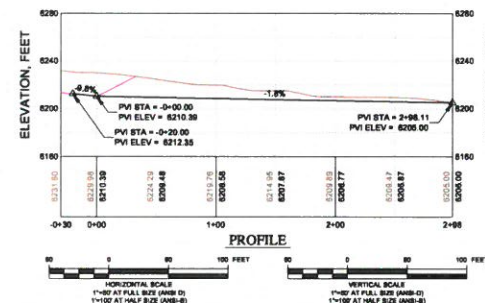
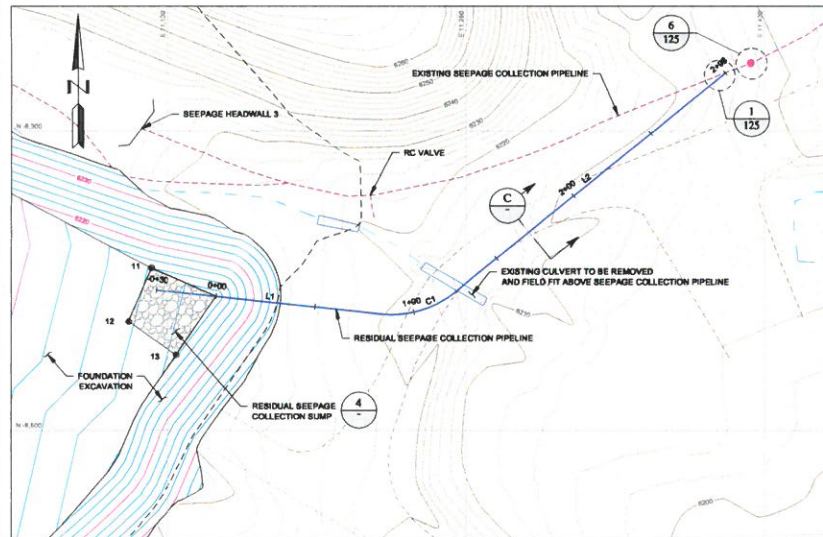
CLIENT

FREEPORT-MCMORAN CHINO MINES COMPANY



PROJECT: CHINO DAM 8 WASTE ROCK STOCKPILE				
TITLE: UNDERDRAIN PROFILE AND DRAIN BUTTRESS SECTIONS				
DESIGNED BY: JB	LOCATION: TU101	PROJECT NUMBER: 00636.09	DRAWING NUMBER: 116	REVISION: B
DRAWN BY: JA				





- LEGEND:**
- EXISTING GROUND SURFACE CONTOUR AND EL. FEET
  - PROPOSED EXCAVATION SURFACE CONTOUR AND EL. FEET
  - EXISTING DRAINAGE
  - EXISTING ROAD
  - EXISTING POWERPOLES
  - EXISTING BUILDINGS AND INFRASTRUCTURE
  - EXISTING SEEPAGE COLLECTION PIPELINE
  - PROPOSED SEEPAGE COLLECTION PIPELINE
  - PROPOSED SEEPAGE COLLECTION PIPELINE CLEANOUT
  - ELEVATION OF EXISTING GROUND SURFACE AND ESTIMATED BOTTOM OF PIPE TRENCH EXCAVATION

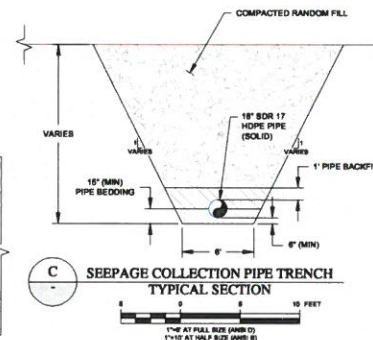
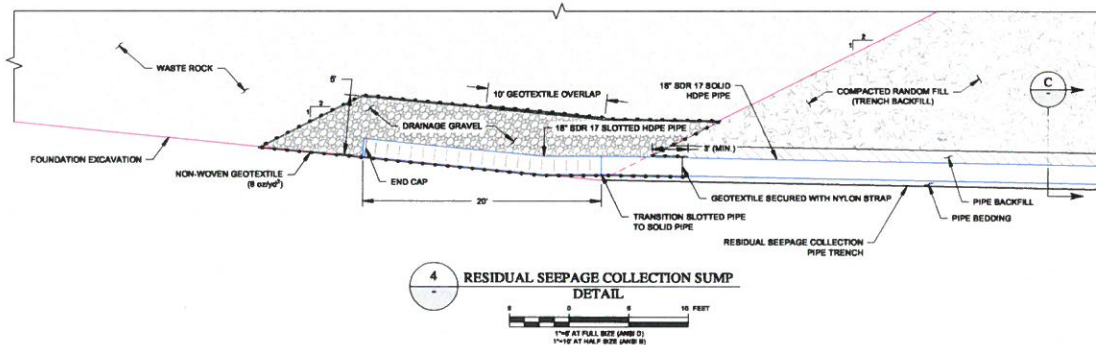
**TABLE 6  
RESIDUAL SEEPAGE COLLECTION PIPELINE  
HORIZONTAL CONTROL DATA**

ID	STATION	NORTHING (ft)	EASTING (ft)	RADIUS (ft)
L1	0+30.00	-6380.18	11094.43	
	0+83.69	-6392.20	11207.49	
C1	0+83.69	-6392.20	11207.49	50.0
	1+23.11	-6381.29	11244.31	
L2	1+23.11	-6381.29	11244.31	
	2+98.11	-6270.91	11389.11	

**TABLE 7  
RESIDUAL SEEPAGE COLLECTION SUMP  
SETTING OUT DATA**

POINT #	NORTHING (ft)	EASTING (ft)	ELEVATION (ft)	DESCRIPTION
11	-6399.37	11,091.74	0.00	11
12	-6398.01	11,089.29	0.00	12
13	-6412.49	11,104.15	0.00	13

- NOTES:**
- SCALE BAR MEASURES 3" ON A FULL SIZE PLOT (ANSI-D) AND 1.5" ON A HALF SIZE PLOT (ANSI-B).
  - CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A STABLE EXCAVATION FOR THE RESIDUAL SEEPAGE COLLECTION PIPELINE CONSTRUCTION.



REV	DATE	DESCRIPTION	APP'D
A	10/19/2023	ISSUED FOR INTERNAL REVIEW	JA
B	12/09/2023	ISSUED FOR REVIEW	JA

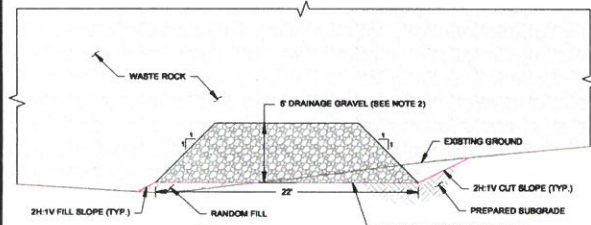
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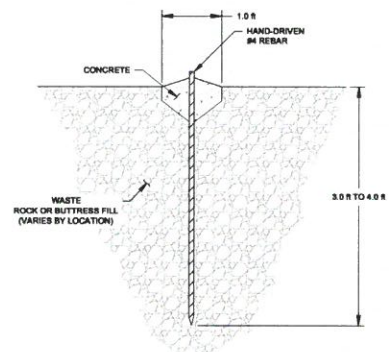
FREEPORT-MCMORAN CHINO MINES COMPANY



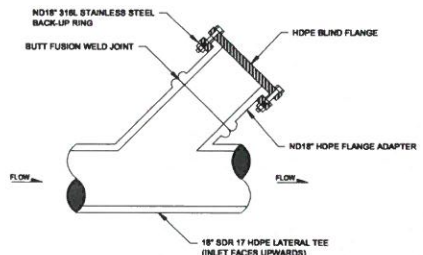
PROJECT			
CHINO DAM 8 WASTE ROCK STOCKPILE			
RESIDUAL SEEPAGE COLLECTION SUMP PLAN, PROFILE, DETAIL, AND SECTION			
DESIGNED BY	NO	PROJECT NUMBER	REVISION
DRAWN BY	JA	TU101	00636.09
		DRAWING NUMBER	120
			B



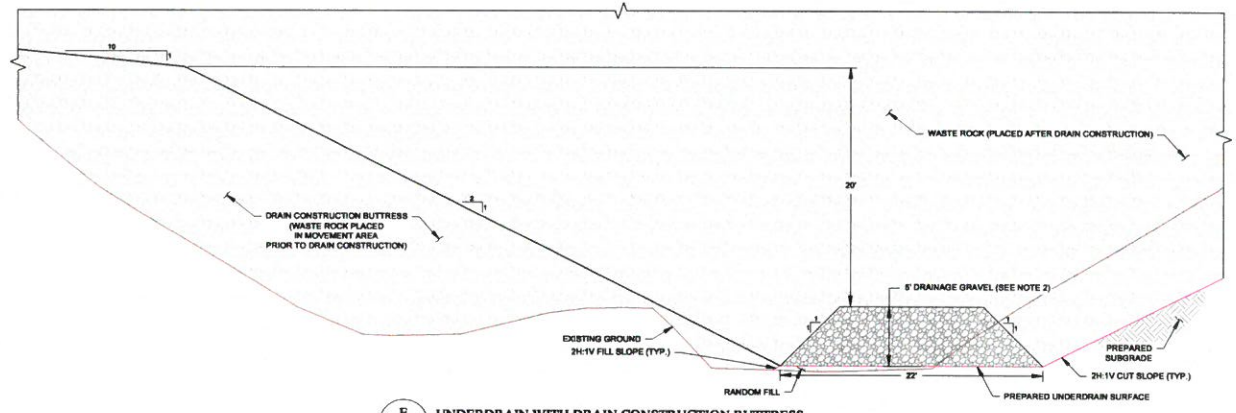
**D**  
**115**  
**UNDERDRAIN**  
**TYPICAL SECTION**  
NTS



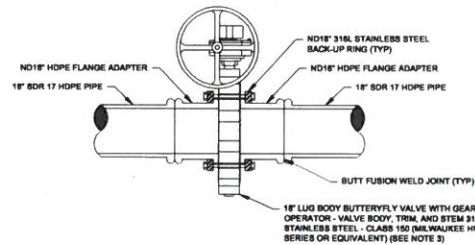
**5**  
**100**  
**5**  
**102**  
**SURVEY MONUMENT INSTALLATION**  
**DETAIL**  
NTS



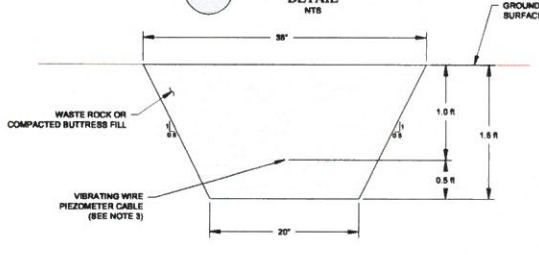
**6**  
**120**  
**SEEPAGE COLLECTION SYSTEM CLEANOUT**  
**DETAIL**  
NTS



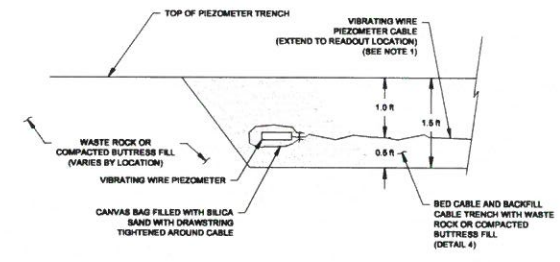
**E**  
**115**  
**UNDERDRAIN WITH DRAIN CONSTRUCTION BUTTRESS**  
**TYPICAL SECTION**  
NTS



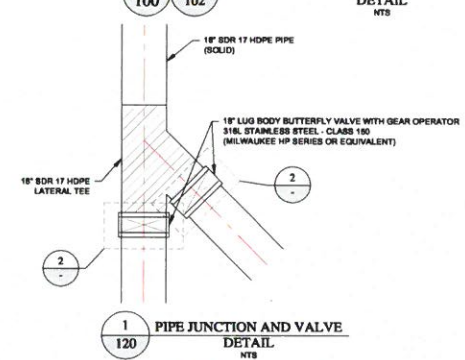
**2**  
**VALVE CONNECTION**  
**DETAIL**  
NTS



**4**  
**PIEZOMETER CABLE TRENCH AND BACKFILL**  
**TYPICAL DETAIL**  
NTS



**3**  
**100**  
**3**  
**102**  
**VIBRATING WIRE PIEZOMETER INSTALLATION**  
**DETAIL**  
NTS



**1**  
**120**  
**PIPE JUNCTION AND VALVE**  
**DETAIL**  
NTS

- NOTES:**
- ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.
  - UNDERDRAIN DIMENSIONS MAY VARY. THE DRAINAGE GRAVEL SECTION MUST BE APPROVED BY THE ENGINEER IN THE FIELD TO VERIFY MINIMUM CROSS SECTIONAL AREA OF 85 SQUARE FEET.
  - SEAT MATERIAL FOR BUTTERFLY VALVE SHALL BE FLUOROCARBON TYPE FRAM (VITON) OR EQUIVALENT. SEAT SHALL BE APPROPRIATE FOR PL3 SOLUTION (PH: 1.5-3.0) WITH A HIGH CONCENTRATION IN SULFURIC ACID.
  - MINIMUM OF 10 PERCENT BLACK TO BE INSTALLED BY SERPENTINING THE CABLES ALONG THE ALIGNMENT OF THE TRENCH.

REV	DATE	DESCRIPTION	APPROVED
A	10/19/2023	ISSUED FOR INTERNAL REVIEW	JA
B	10/20/2023	ISSUED FOR REVIEW	JA

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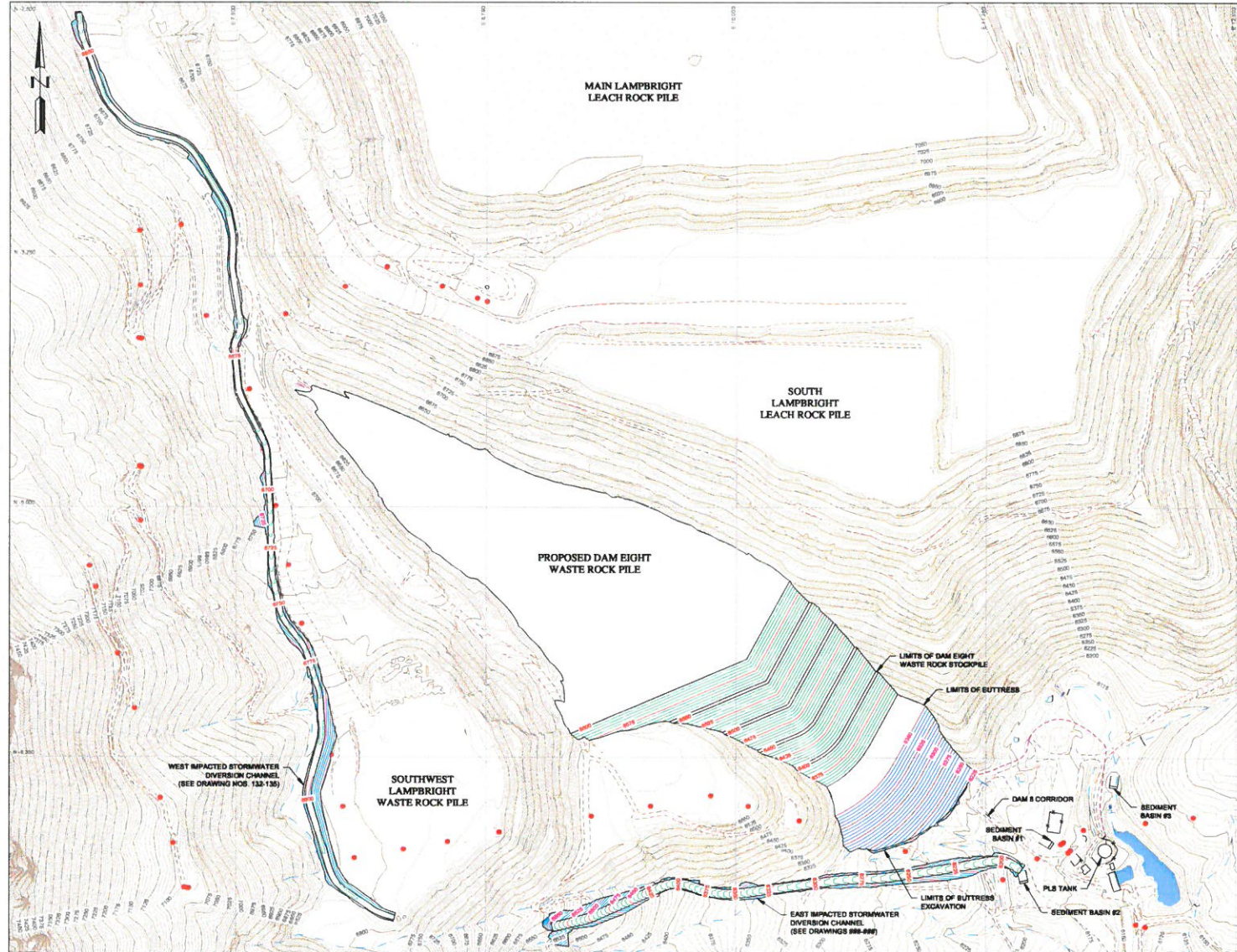
FREEMONT-MCMORAN CHINO MINES COMPANY



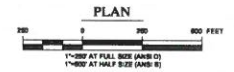
<b>PROJECT</b>	CHINO DAM 8 WASTE ROCK STOCKPILE			
<b>TITLE</b>	TYPICAL SECTIONS AND DETAILS			
<b>DESIGNED BY</b>	MS	<b>LOCATION</b>	TU101	<b>PROJECT NUMBER</b>
<b>DRAWN BY</b>	JA			00636.09
				<b>DRAWING NUMBER</b>
				125
				<b>REVISION</b>
				B



LAST SAVED BY: RHENGA  
 PROJECT: CHINO DAM 8 WASTE ROCK STOCKPILE  
 PRINTED BY: RICHARD BENGA, PRINT TIME: 12/20/2023 9:03 AM



- LEGEND:**
- EXISTING GROUND SURFACE CONTOUR AND EL. FEET
  - REGRADED GROUND SURFACE CONTOUR AND EL. FEET
  - PROPOSED BUTTRESS SURFACE CONTOUR AND EL. FEET
  - EXCAVATED GROUND SURFACE CONTOUR AND EL. FEET
  - EXISTING DRAINAGE
  - EXISTING ROAD
  - EXISTING POWERPOLES
  - EXISTING BUILDINGS AND INFRASTRUCTURE



- NOTES:**
- SCALE BAR MEASURES 1" ON A FULL SIZE PLOT (ANSI-D) AND 1.5" ON A HALF SIZE PLOT (ANSI-B).
  - ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

FOR REFERENCE:  
 PLANS AND TOPOGRAPHY PROVIDED BY FREEPORT-MCMORAN CHINO MINES COMPANY ON 10/29/13 & 2/20/14 (2014 & 2020 SURVEYS, RESPECTIVELY) AND UNITED STATES GEOLOGICAL SURVEY (ACQ#B010307021).  
 COORDINATE SYSTEM: LOCAL MINE GRID

REV	DATE	DESCRIPTION	APP'D	CHECKED
A	10/1/2023	ISSUED FOR INTERNAL REVIEW	JB	JA
B	1/20/2024	ISSUED FOR REVIEW	JB	JA

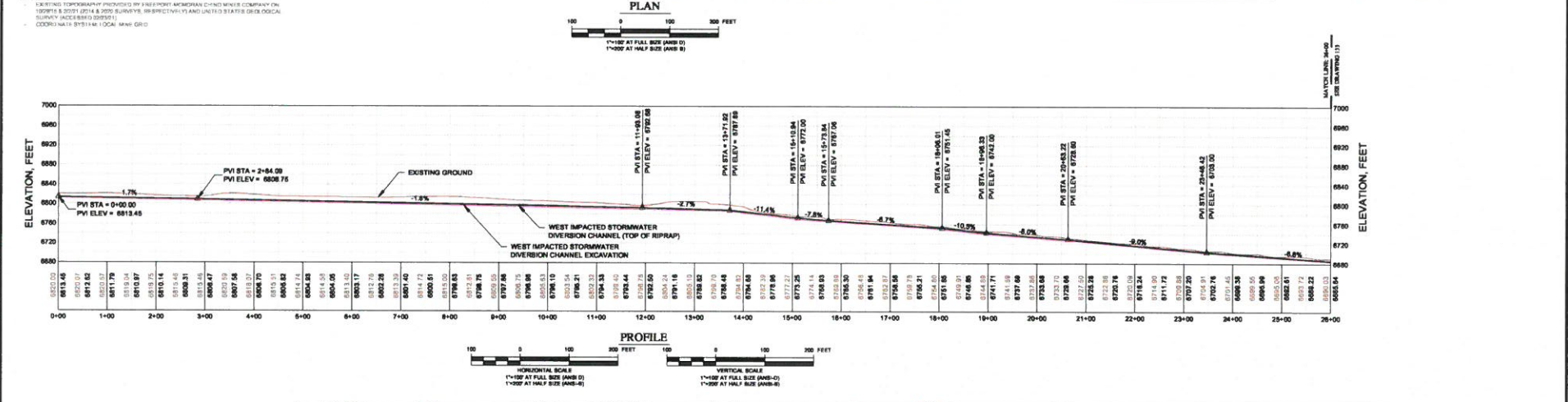
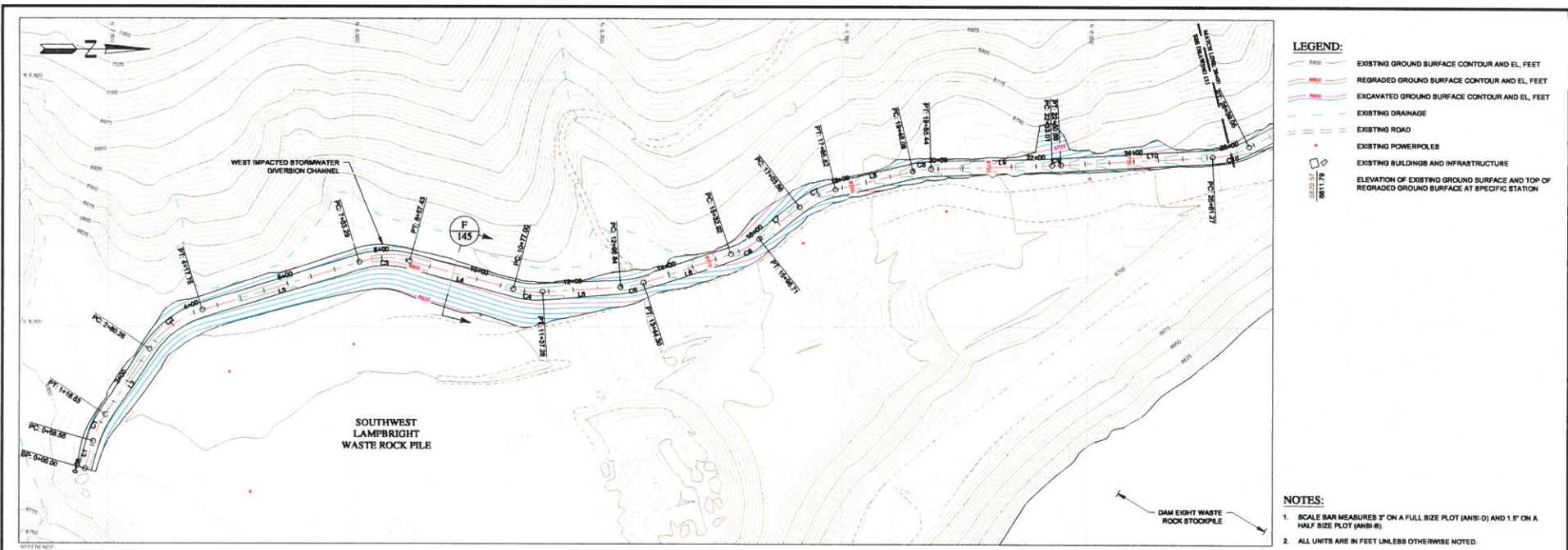
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CLIENT: FREEPORT-MCMORAN CHINO MINES COMPANY



PROJECT: CHINO DAM 8 WASTE ROCK STOCKPILE	TITLE: IMPACTED STORMWATER DIVERSION CHANNEL PLAN
DESIGNED BY: JB	LOCATION: TU101
DRAWN BY: JA	PROJECT NUMBER: 00636.09
	DRAWING NUMBER: 130
	REVISION: B





REV	DATE	DESCRIPTION	APP'D	CHK'D	DECLARATION	DESIGN
A	10/18/2023	ISSUED FOR INTERNAL REVIEW	JB	JA	KNIGHT PIÉSOLD AND CO. PRODUCED THIS DATA SHOWN HEREON USING BOTH TECHNICAL INFORMATION AND METHODS. RECEIPT OF THIS DRAWING DOES NOT IMPLY TO THE RECIPIENT ANY RIGHTS TO SUCH TECHNICAL INFORMATION OR METHODS. ANY ADAPTATION OR MODIFICATION OF THIS DATA ON DRAWING SHALL BE AT USER'S SOLE RISK, AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO KNIGHT PIÉSOLD AND CO.	
B	10/27/2023	ISSUED FOR REVIEW	JB	JA		

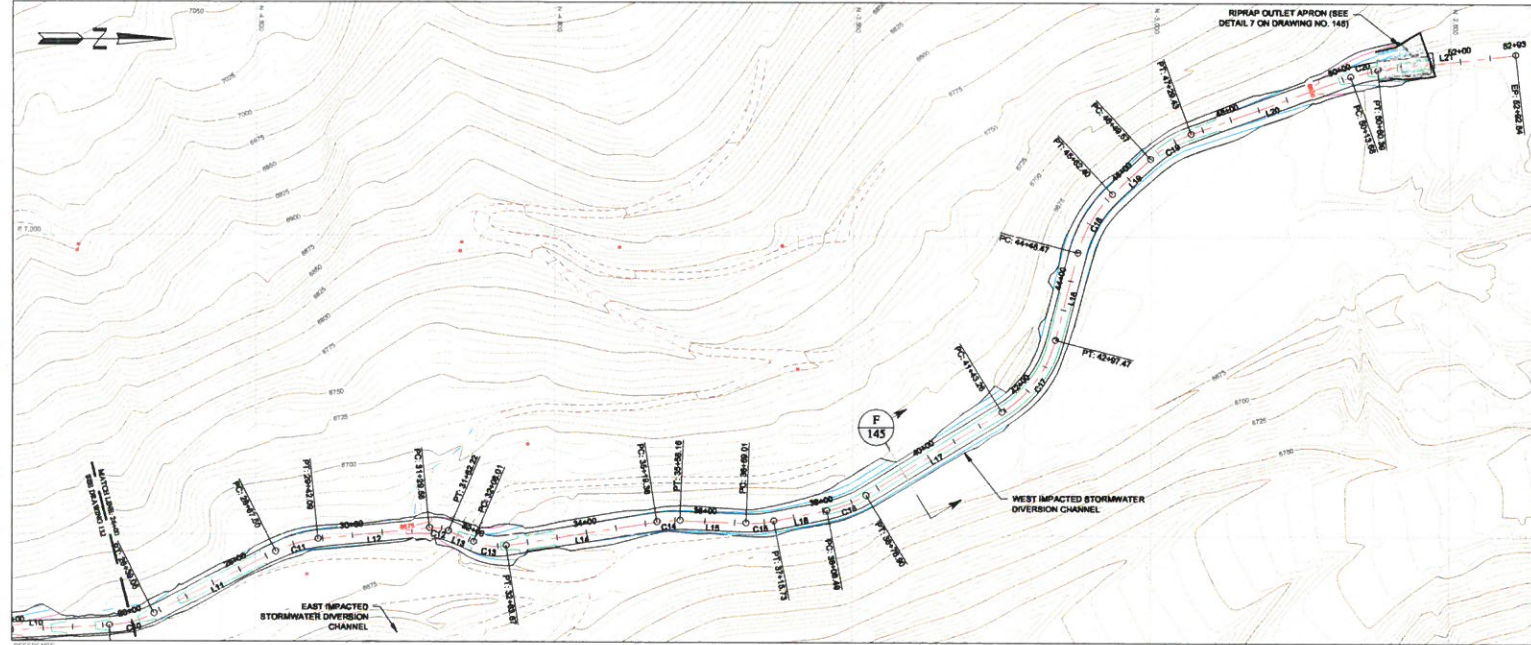
PROJECT		CHINO DAM 8 WASTE ROCK STOCKPILE	
TITLE		WEST IMPACTED STORMWATER DIVERSION CHANNEL PLAN AND PROFILE (SHEET 1 OF 2)	
DESIGNED BY	JB	LOCATION	TU101
DRAWN BY	JA	PROJECT NUMBER	00636.09
		DRAWING NUMBER	132
		REVISION	B



LAST REVISED BY: JB/CHNO  
 PRINTED BY: RICHARD BENKA  
 PRINT TIME: 12/20/2023 9:03 AM



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LAST SAVED DATE: 11/11/2024 10:00:00 AM  
PRINTED BY: RICHARD BECANA, PRINT TIME: 11/11/2024 10:00:00 AM



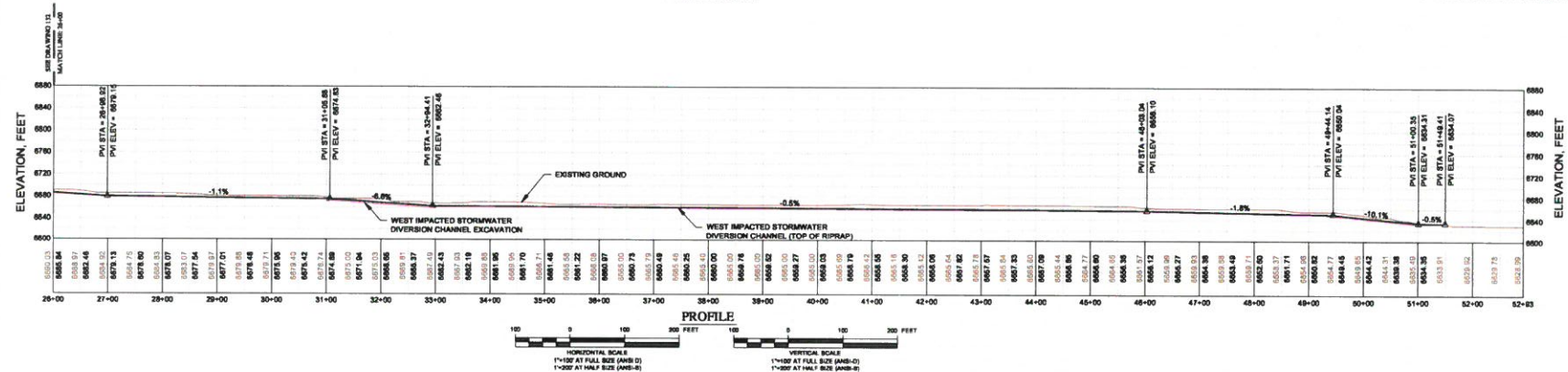
#### LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL. FEET
- REGRADED GROUND SURFACE CONTOUR AND EL. FEET
- EXCAVATED GROUND SURFACE CONTOUR AND EL. FEET
- EXISTING DRAINAGE
- EXISTING ROAD
- EXISTING POWERPOLES
- EXISTING BUILDINGS AND INFRASTRUCTURE
- ELEVATION OF EXISTING GROUND SURFACE AND TOP OF REGRADED GROUND SURFACE AT SPECIFIC STATION



#### NOTES:

- SCALE BAR MEASURES 1" ON A FULL SIZE PLOT (ANSI-B) AND 1/2" ON A HALF SIZE PLOT (ANSI-C).
- ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.



REV	DATE	DESCRIPTION	APPROVED
A	10/13/2023	ISSUED FOR INTERNAL REVIEW	JA
B	11/09/2023	ISSUED FOR REVIEW	JA

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CLIENT		PROJECT	
FREEPORT-MCMORAN CHINO MINES COMPANY		CHINO DAM 8 WASTE ROCK STOCKPILE	
TITLE		WEST IMPACTED STORMWATER DIVERSION CHANNEL PLAN AND PROFILE (SHEET 2 OF 2)	
DESIGNED BY	JA	LOCATOR	TU101
DRAWN BY	JA	PROJECT NUMBER	00636.09
		DRAWING NUMBER	133
		REVISION	B



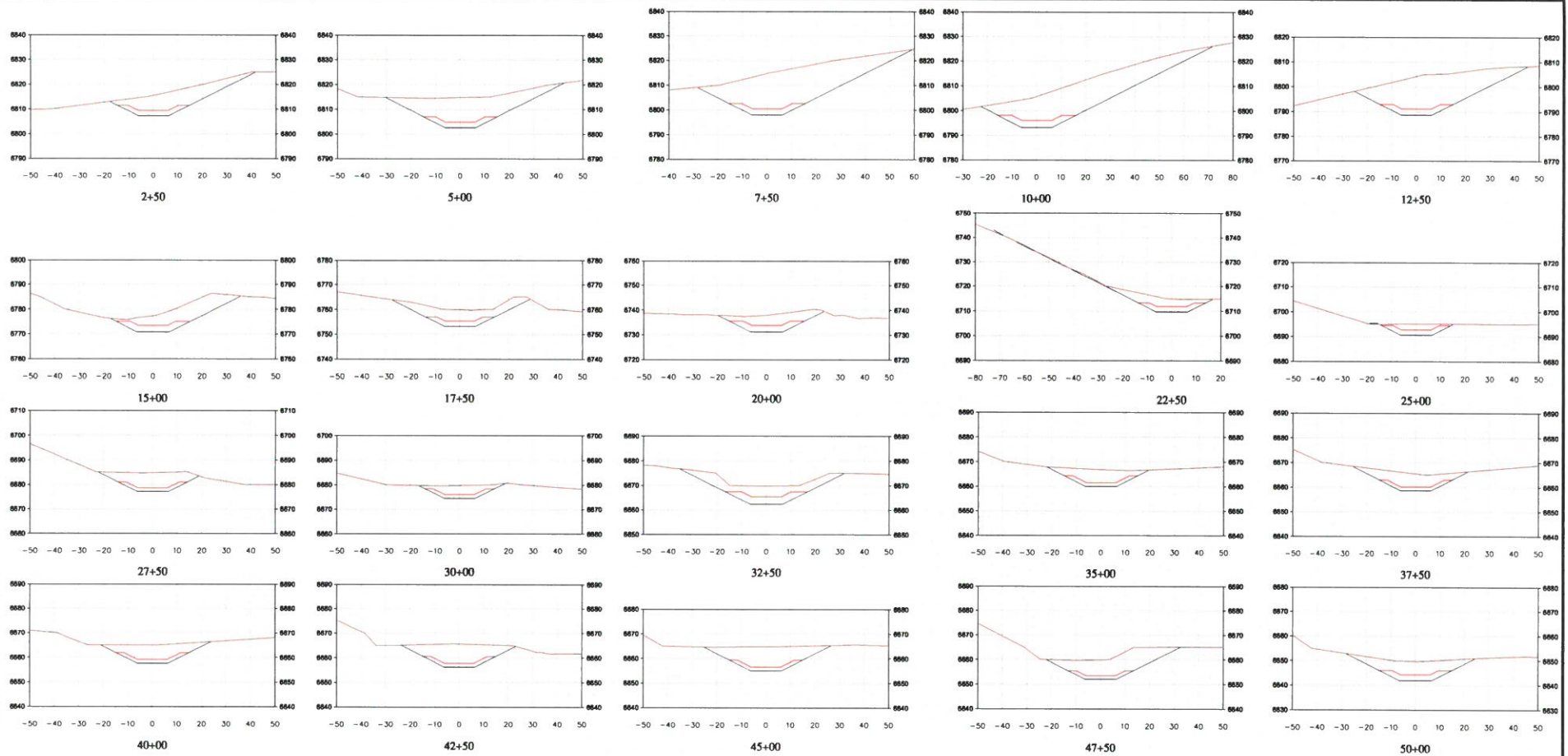
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L1	0+00.00 0+08.85	-7047.05 -7050.08	8293.37 8237.19	
C1	0+08.85 +1+03.50	-7050.08 -7050.00	8237.19 8182.99	200.0
L2	+1+03.50 +2+00.28	-7050.00 -8016.11	8182.99 8048.18	
C2	+2+00.28 +4+17.75	-8016.11 -8008.15	8048.18 7987.42	200.0
L3	+4+17.75 +5+53.29	-8008.15 -8003.44	7987.42 7968.78	
C3	+5+53.29 +8+57.43	-8003.44 -8384.87	7968.78 7866.86	186.2
L4	+8+57.43 +10+77.00	-8384.87 -8172.53	7866.86 7823.52	
C4	+10+77.00 +11+37.28	-8172.53 -8112.82	7823.52 7829.45	186.2
L5	+11+37.28 +12+00.84	-8112.82 -8063.37	7829.45 7818.45	
C5	+12+00.84 +13+44.30	-8063.37 -8007.09	7818.45 7910.50	186.2
L6	+13+44.30 +15+32.82	-8007.09 -8727.91	7910.50 7851.58	
C6	+15+32.82 +16+08.71	-8727.91 -8669.09	7851.58 7850.52	186.2
L7	+16+08.71 +17+03.88	-8669.09 -8068.18	7850.52 7756.32	
C7	+17+03.88 +17+05.52	-8068.18 -5614.82	7756.32 7718.96	186.2
L8	+17+05.52 +19+43.08	-5614.82 -5366.75	7718.96 7632.77	
C8	+19+43.08 +20+08.71	-5366.75 -5181.75	7632.77 7577.84	186.2
L9	+20+08.71 +22+33.01	-5181.75 -5072.30	7577.84 7670.80	
C9	+22+33.01 +22+50.88	-5072.30 -5094.45	7670.80 7689.84	706.7
L10	+22+50.88 +25+41.27	-5094.45 -4744.63	7689.84 7853.63	
C10	+25+41.27 +26+38.08	-4744.63 -4688.08	7853.63 7832.70	186.2
L11	+26+38.08 +28+87.50	-4688.08 -4466.57	7832.70 7828.71	

ID	STATION	NORTHING	EASTING	RADIUS
C11	28+47.50	-4468.57	7628.71	
	28+42.50	-4596.43	7607.78	
L12	29+42.06	-4396.43	7607.78	
	31+26.58	-4206.87	7489.11	
C12	31+29.58	-4208.87	7489.11	85.4
	31+62.22	-4176.93	7493.94	
L13	31+62.22	-4176.93	7493.94	
	32+08.01	-4134.75	7511.75	
C13	32+08.01	-4134.75	7511.75	100.0
	33+69.01	-4013.87	7518.40	
L14	33+63.87	-4060.20	7518.40	
	35+10.38	-3827.85	7478.40	
C14	35+10.38	-3827.85	7478.40	200.0
	35+68.18	-3788.99	7476.07	
L15	35+68.18	-3788.99	7476.07	
	36+99.01	-3676.22	7490.16	
C16	36+99.01	-3676.22	7490.16	200.0
	37+15.73	-3631.78	7478.44	
L16	37+15.73	-3631.78	7478.44	
	38+06.49	-3542.75	7468.70	
C18	38+06.49	-3542.75	7468.70	200.0
	38+78.90	-3477.51	7433.19	
L17	38+78.90	-3477.51	7433.19	
	41+43.39	-3265.98	7294.34	
C17	41+43.39	-3265.98	7294.34	200.0
	42+97.47	-3180.88	7173.28	
L18	42+97.47	-3180.88	7173.28	
	44+48.47	-3123.36	7027.01	
C18	44+48.47	-3123.36	7027.01	
	45+45.42	-3066.97	6900.36	
L19	45+45.42	-3066.97	6900.36	
	46+49.57	-3022.20	6870.94	
C19	46+49.57	-3022.20	6870.94	200.0
	47+29.43	-2994.59	6829.44	
L20	47+29.43	-2994.59	6829.44	
	50+13.88	-2967.85	6731.74	
C20	50+13.88	-2967.85	6731.74	200.0
	50+60.39	-2910.33	6700.93	
L21	50+60.39	-2923.33	6720.93	
	52+92.84	-2791.47	6663.73	

REV	DATE	DESCRIPTION	APPROVED	DISCLAIMER	CLIENT	PROJECT				
A	1/10/2003	ISSUED FOR INTERNAL REVIEW	GAO	KNIGHT PIÉSOLD AND CONSULTING LTD. PROVIDES THE DATA SHOWN HEREON USING BOTH TECHNICAL INFORMATION AND METHODS. RECEIPT OF THIS DRAWING DOES NOT IMPART TO THE RECIPIENT ANY LIABILITY TO SUPPLY TECHNICAL INFORMATION OR METHODS, OR ANY ADAPTATION OR MODIFICATION OF THIS DATA OR DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO KNIGHT PIÉSOLD AND CONSULTING LTD.	FREEPORT-MCMORAN CHINO MINES COMPANY	CHINO DAM 8 WASTE ROCK STOCKPILE				
B	1/30/2003	ISSUED FOR REVIEW	JA							
						TITLE				
						WEST IMPACTED STORMWATER DIVERSION CHANNEL				
						HORIZONTAL CONTROL DATA				
					DESIGNED BY	HB	LOCATION	PROJECT NUMBER	DRAWING NUMBER	REVISION
					DRAWN BY	JA	TU101	00636.09	134	B



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DRAWN BY: HERNANDEZ  
PRINTED BY: RICHARD BENITA, PRINT TIME: 12/20/2023 9:03 AM



#### LEGEND:

- EXISTING GROUND SURFACE PROFILE
- DIVERSION CHANNEL EXCAVATION SURFACE PROFILE
- TOP OF RIPRAP SURFACE PROFILE

#### NOTES:

- SCALE BAR MEASURES 3" ON A FULL SIZE PLOT (ANSI-D) AND 1.5" ON A HALF SIZE PLOT (ANSI-B).
- ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.
- ALL UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION MUST BE REMOVED AND REPLACED WITH COMPACTED RANDOM FILL AS REQUIRED BY THE ENGINEER.
- ALL FILL SHALL BE PLACED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.

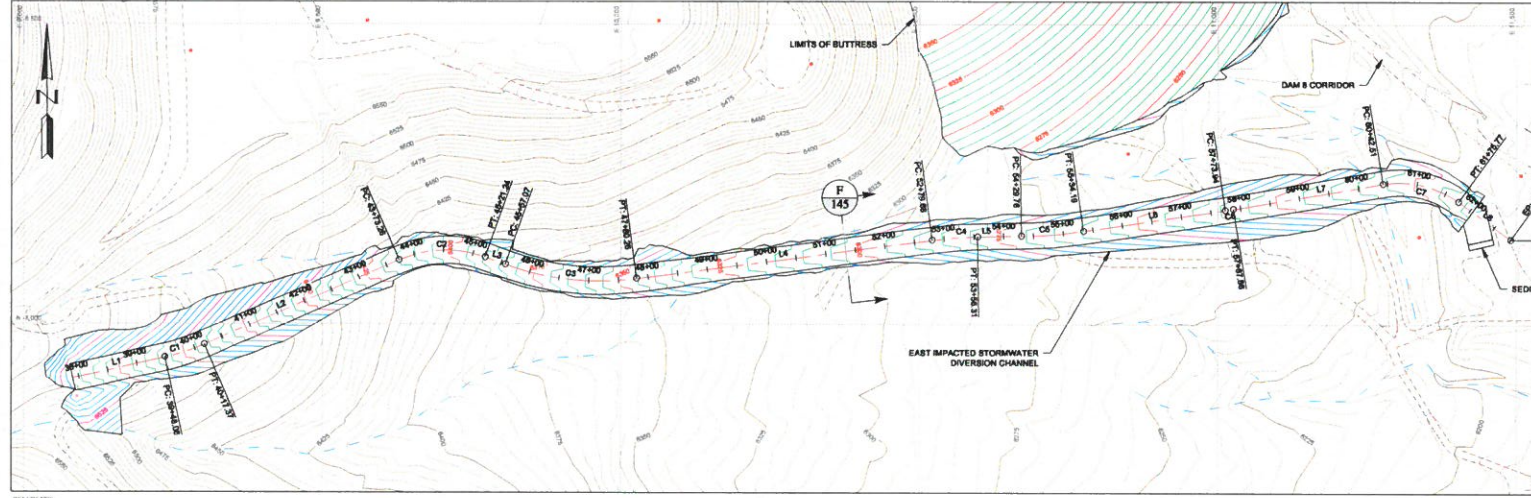
REV	DATE	DESCRIPTION	APP'D
1	10/19/2023	ISSUED FOR INTERNAL REVIEW	JA
2	12/20/2023	ISSUED FOR REVIEW	JA

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CLIENT	
FREEPORT-MCMORAN CHINO MINES COMPANY	

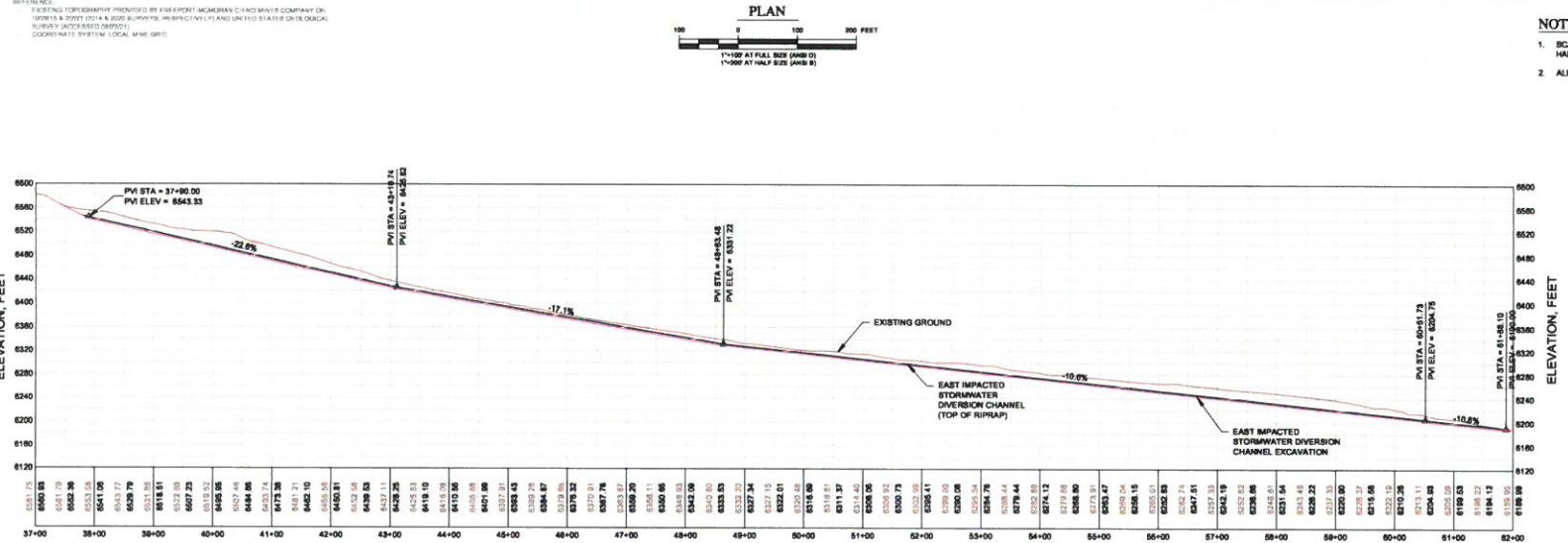


PROJECT			
CHINO DAM 8 WASTE ROCK STOCKPILE			
TITLE			
WEST IMPACTED STORMWATER DIVERSION CHANNEL			
SECTIONS			
DESIGNED BY	RE	LOCATION	TU101
DRAWN BY	JA	PROJECT NUMBER	00636.09
		DRAWING NUMBER	135
		REVISION	B



- LEGEND:**
- EXISTING GROUND SURFACE CONTOUR AND EL. FEET
  - PROPOSED GROUND SURFACE CONTOUR AND EL. FEET
  - PROPOSED EXCAVATION SURFACE CONTOUR AND EL. FEET
  - EXISTING DRAINAGE
  - EXISTING ROAD
  - EXISTING POWERPOLES
  - EXISTING BUILDINGS AND INFRASTRUCTURE
  - ELEVATION OF EXISTING GROUND SURFACE AND TOP OF REGRADED GROUND SURFACE AT SPECIFIC STATION

- NOTES:**
- SCALE BAR MEASURES 3" ON A FULL SIZE PLOT (ANSI-D) AND 1.5" ON A HALF SIZE PLOT (ANSI-B).
  - ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.



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A	10/13/2023	ISSUED FOR INTERNAL REVIEW	JB	JA	KNIGHT PIÉSOLED AND CO. PRODUCED THE DATA SHOWN HEREIN USING BOTH TECHNICAL INFORMATION AND METHODS. RECEIPT OF THIS DRAWING DOES NOT IMPLY THE RELEVANT PARTY'S LIABILITY TO ANY OTHER PARTY FOR THE DATA OR DRAWING SHALL BE AT THE RELEVANT PARTY'S RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO KNIGHT PIÉSOLED AND CO.	FREEPORT-MCMORAN CHINO MINES COMPANY	CHINO DAM 8 WASTE ROCK STOCKPILE
B	13/09/2023	ISSUED FOR REVIEW	JB	JA			TITLE EAST IMPACTED STORMWATER DIVERSION CHANNEL PLAN AND PROFILE
							DESIGNED BY: JB CHECKED BY: JA DRAWN BY: JA
							PROJECT NUMBER: TU101 DRAWING NUMBER: 00636.09 REVISION: 136 B



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PRINT TIME: 12/20/2023 3:44 AM

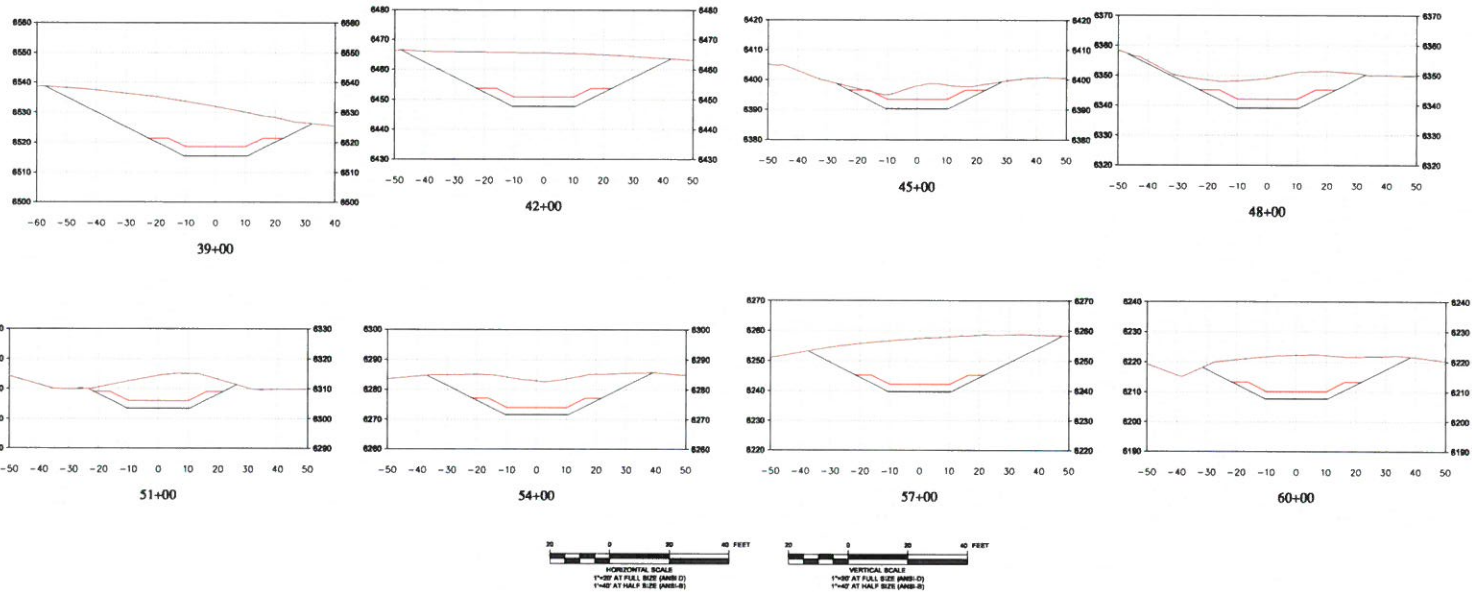


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CHECKED BY: RICHARD BENICA  
PRINTED BY: RICHARD BENICA  
PRINT TIME: 12/20/2023 8:04 AM

TABLE 9 EAST IMPACTED STORMWATER DIVERSION CHANNEL HORIZONTAL CONTROL DATA				
ID	STATION	NORTHING	EASTING	RADIUS
L1	37+06.81	-7082.84	8076.82	
	38+48.06	-7057.02	8236.78	
C1	38+48.06	-7057.02	8236.78	386.1
	40+17.37	-7035.48	8301.52	
L2	40+17.37	-7035.48	8301.52	
	43+73.28	-6893.21	8827.73	
C2	43+73.28	-6893.21	8827.73	196.0
	45+21.34	-6868.37	8772.14	
L3	45+21.34	-6868.37	8772.14	
	46+87.07	-6900.47	8605.87	
C3	46+87.07	-6900.47	8605.87	470.1
	47+80.26	-6824.06	10025.70	
L4	47+80.26	-6824.06	10025.70	
	52+79.88	-6559.07	10520.88	
C4	52+79.88	-6559.07	10520.88	671.9
	53+58.31	-6563.44	10597.26	
L5	53+58.31	-6563.44	10597.26	
	54+29.76	-6562.24	10670.70	
C5	54+29.76	-6562.24	10670.70	806.6
	55+34.19	-6543.77	10774.71	
L6	55+34.19	-6543.77	10774.71	
	57+73.94	-6506.91	11011.92	
C6	57+73.94	-6506.91	11011.92	812.2
	57+87.86	-6506.73	11025.87	
L7	57+87.86	-6506.73	11025.87	
	60+42.51	-6763.98	11276.70	
C7	60+42.51	-6763.98	11276.70	186.9
	61+75.77	-6793.83	11403.01	
L8	61+75.77	-6793.83	11403.01	
	62+83.82	-6857.27	11490.34	

REV		DATE	DESCRIPTION	APPROVED		DISCLAIMER		CLIENT	PROJECT							
A		1/11/2023	ISSUED FOR INTERNAL REVIEW	NO	JA	KNIGHT PERIOD AND CO. PRODUCED THE DATA SHOWN HEREON USING BOTH TECHNICAL INFORMATION AND METHODS. RECEIPT OF THIS DRAWING DOES NOT IMPLY TO THE RECIPIENT ANY RIGHTS TO SUCH TECHNICAL INFORMATION OR METHODS, ANY ADAPTATION OR MODIFICATION OF THE DATA OR DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY OF LEGAL EXPOSURE TO KNIGHT PERIOD AND CO.		FREEPORT-MCMORAN CHINO MINES COMPANY	CHINO DAM 8 WASTE ROCK STOCKPILE							
B		1/30/2023	ISSUED FOR REVIEW	NO	JA				TITLE EAST IMPACTED STORMWATER DIVERSION CHANNEL HORIZONTAL CONTROL DATA							
									DESIGNED BY		NO	LOCATION	PROJECT NUMBER		DRAWING NUMBER	REVISION
									DRAWN BY		JA	TU101	00636.09		137	B

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 PROJECT: CHINO DAM 8 WASTE ROCK STOCKPILE  
 PRINTED BY: JMB/ALCA  
 PRINT TIME: 11/11/2023 9:44 AM



# LEGEND:

- EXISTING GROUND SURFACE PROFILE
- DIVERSION CHANNEL EXCAVATION SURFACE PROFILE
- TOP OF RIPRAP SURFACE PROFILE

# NOTES:

- SCALE BAR MEASURES 1" ON A FULL SIZE PLOT (ANSI-D) AND 1/2" ON A HALF SIZE PLOT (ANSI-E).
- ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.
- ALL UNDESIRABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION MUST BE REMOVED AND REPLACED WITH COMPACTED RANDOM FILL AS REQUIRED BY THE ENGINEER.
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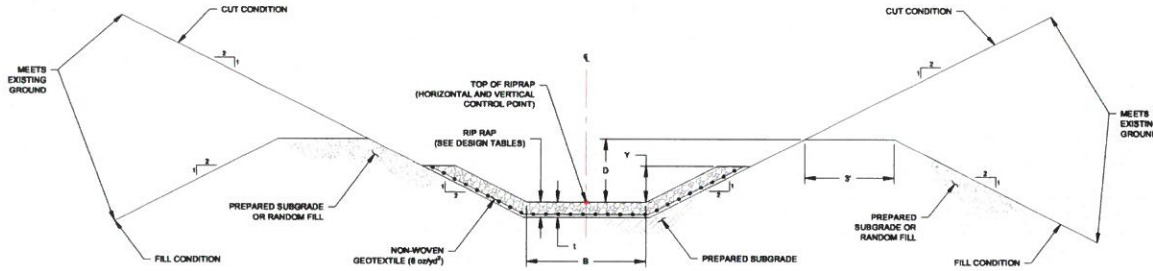
REV	DATE	DESCRIPTION	APPROVED
A	10/13/2023	REVISION FOR INTERNAL REVIEW	JMB
B	12/02/2023	REVISION FOR REVIEW	JMB

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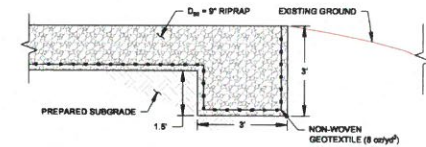
CLIENT
FREEMONT-MCMORAN CHINO MINES COMPANY

PROJECT
CHINO DAM 8 WASTE ROCK STOCKPILE
TITLE
EAST IMPACTED STORMWATER DIVERSION CHANNEL PLAN AND PROFILE
DESIGNED BY
JMB
DRAWN BY
JMB
PROJECT NUMBER
TU101
DRAWING NUMBER
00636.09
REVISION
136
REVISION
B





F 132 F 133 F 136 DIVERSION CHANNEL  
TYPICAL CROSS SECTION  
NTS



7 133 RIPRAP CUTOFF TRENCH  
TYPICAL DETAIL  
NTS

STATIONING	BOTTOM WIDTH B (ft)	FLOW DEPTH Y (ft)	MINIMUM CHANNEL DEPTH D (ft)	RIPRAP D <sub>50</sub> (in)	RIPRAP THICKNESS L (ft)
00+00 TO 11+03	12	2.3	3.5	9	18
11+03 TO 11+08	TRANSITION				
11+08 TO 13+87	12	2.0	3.0	9	18
13+87 TO 13+72	TRANSITION				
13+72 TO 15+06	12	1.6	2.6	12	24
15+06 TO 15+11	TRANSITION				
15+11 TO 15+89	12	1.7	2.7	12	24
15+89 TO 15+74	TRANSITION				
15+74 TO 18+06	12	1.8	2.8	12	24
18+06 TO 18+11	TRANSITION				
18+11 TO 18+91	12	1.6	2.6	12	24
18+91 TO 18+96	TRANSITION				
18+96 TO 23+31	12	1.7	2.7	12	24
23+31 TO 23+36	TRANSITION				
23+36 TO 26+95	12	1.8	2.8	12	24
26+95 TO 27+00	TRANSITION				
27+00 TO 31+01	12	2.5	3.6	9	18
31+01 TO 31+06	TRANSITION				
31+06 TO 32+94	12	2.1	3.1	18	36
32+94 TO 32+99	TRANSITION				
32+99 TO 48+03	12	3.0	4.0	9	18
48+03 TO 48+08	TRANSITION				
48+08 TO 49+39	12	2.2	3.2	9	18
49+39 TO 49+44	TRANSITION				
49+44 TO 51+00	12	1.8	2.8	12	24
51+00 TO 51+06	TRANSITION				
51+06 TO 52+90	12	3.0	4.0	9	18
TRANSITION TO RIPRAP OUTLET APRON					

STATIONING	BOTTOM WIDTH B (ft)	FLOW DEPTH Y (ft)	MINIMUM CHANNEL DEPTH D (ft)	RIPRAP D <sub>50</sub> (in)	RIPRAP THICKNESS L (ft)
37+80 TO 43+06	20	1.5	2.5	18	36
43+06 TO 43+11	TRANSITION				
43+11 TO 48+55	20	1.9	2.9	18	36
48+55 TO 48+80	TRANSITION				
48+80 TO 51+77	20	2	3.0	15	30
51+77 TO 51+82	TRANSITION				
51+82 TO 52+04	20	2	3.0	18	36
52+04 TO 52+09	TRANSITION				
52+09 TO 52+29	20	2.3	3.3	9	18
TRANSITION TO SEDIMENT BASIN					

NOTES:  
1. ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

REV	DATE	DESCRIPTION	APPROVED
A	1/21/2023	ISSUED FOR INTERNAL REVIEW	JA
B	1/30/2023	ISSUED FOR REVIEW	JA

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CLIENT		PROJECT			
FREEPORT-MCMORAN CHINO MINES COMPANY		CHINO DAM 8 WASTE ROCK STOCKPILE			
TITLE		IMPACTED STORMWATER DIVERSION CHANNEL DETAILS			
DESIGNED BY	JA	LOCATION	PROJECT NUMBER	DRAWING NUMBER	REVISION
DRAWN BY	JA	TU101	00636.09	145	B

**KN** Knight Piésołd  
CONSULTING