



COLORADO OPERATIONS

Henderson Mine and Mill
P.O. Box 68
Empire, CO 80438
Phone (303) 569-3221
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November 11, 2020

Sent Via Email and UPS#: 1Z804641NT98366007

Mr. Peter Hays
Division of Reclamation Mining and Safety
1313 Sherman St., Rm. 215
Denver, CO 80203

**RE: Climax Molybdenum Company, Henderson Mine, Permit No. M-1977-342
Technical Revision No. 31, Additional 3 Dam Seepwater Return Line Cleanout Ports –
Adequacy Review Response**

Dear Mr. Hays:

In your adequacy review received on March 27, you requested we supply additional documentation in the form of As-Built Drawings and Engineering Certification stamped, signed, and dated by a Professional Engineer.

Please find attached the requested As-Built Drawings and Engineering Certification stamped, signed, and dated by Dillon Benbow, Henderson Mill's Chief Engineer and PE.

If you have have further questions please reach out to Miguel Hamarat at mhamarat@fmi.com or 720-942-3255.

Regards,

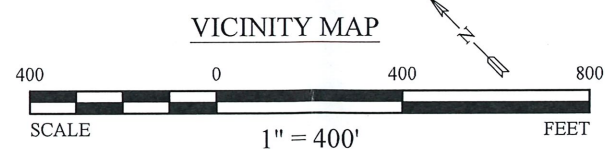
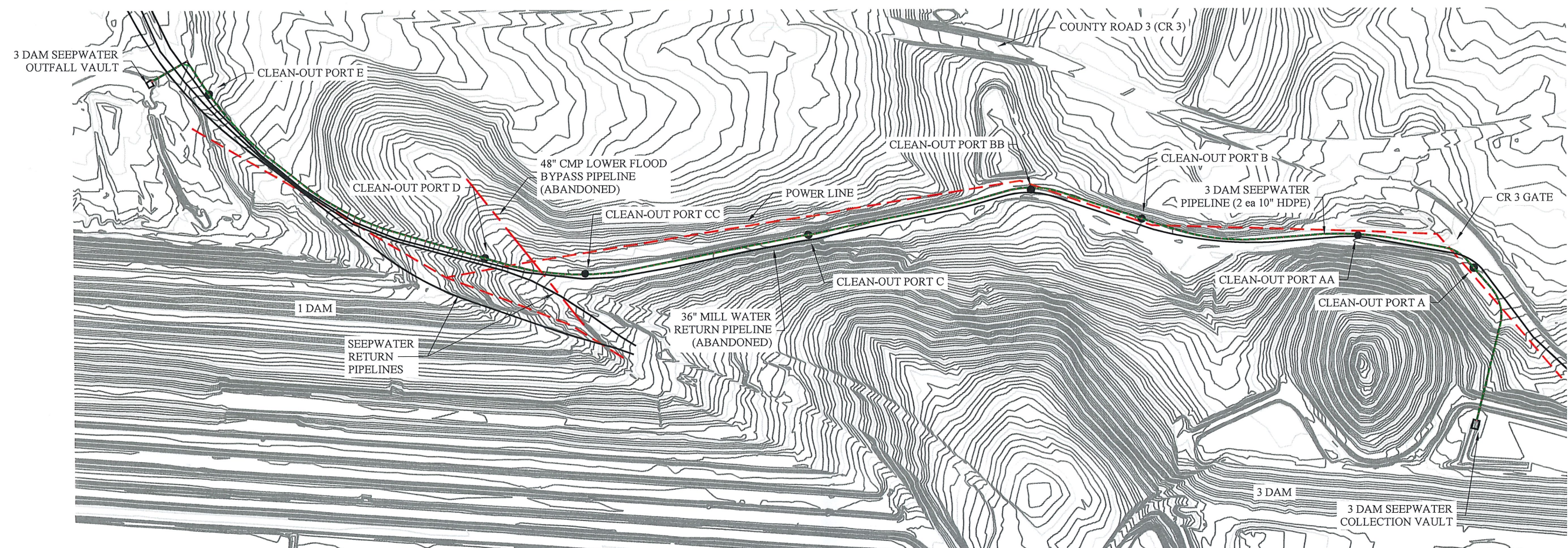
Aaron Hilshorst
Manager, Land & Water Resources
Colorado
Climax Molybdenum Company

Attachments:

- 3 Dam Seepwater Return Line Cleanout As-Built
- 3 Dam Seepwater Return Line Cleanout Certification Statement

cc: M. Hamarat, Climax

3 DAM SEEPWATER CLEAN-OUT ADDITIONS AS-BUILT





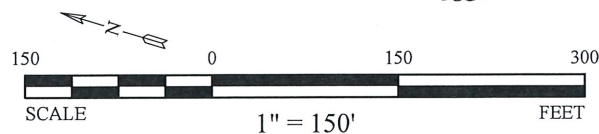
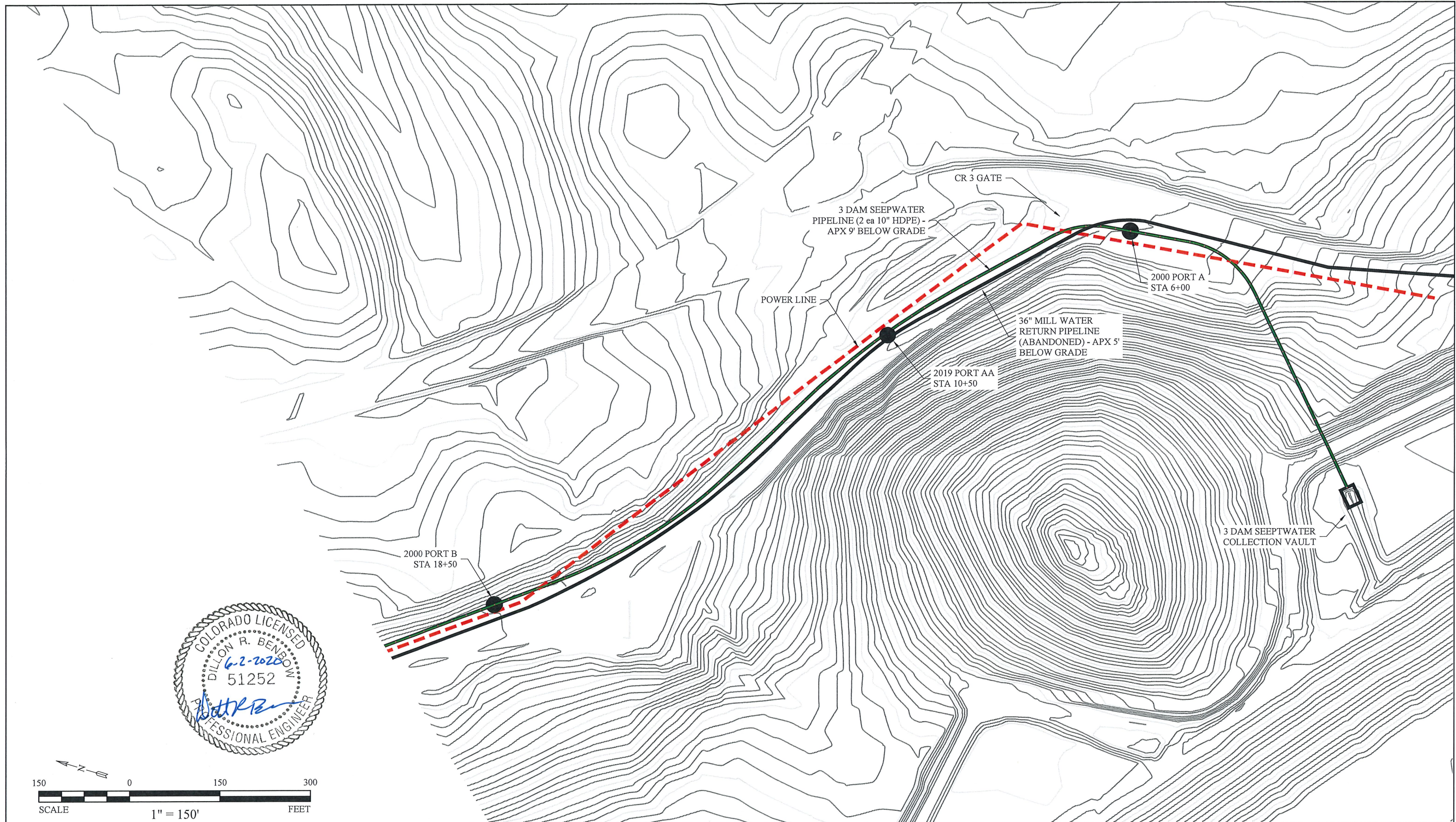
2019 CLEAN-OUT LOCATIONS		
PORT	NORTHING	EASTING
AA	193371.154	1836860.980
BB	194404.104	1836244.811
CC	195478.903	1834988.202




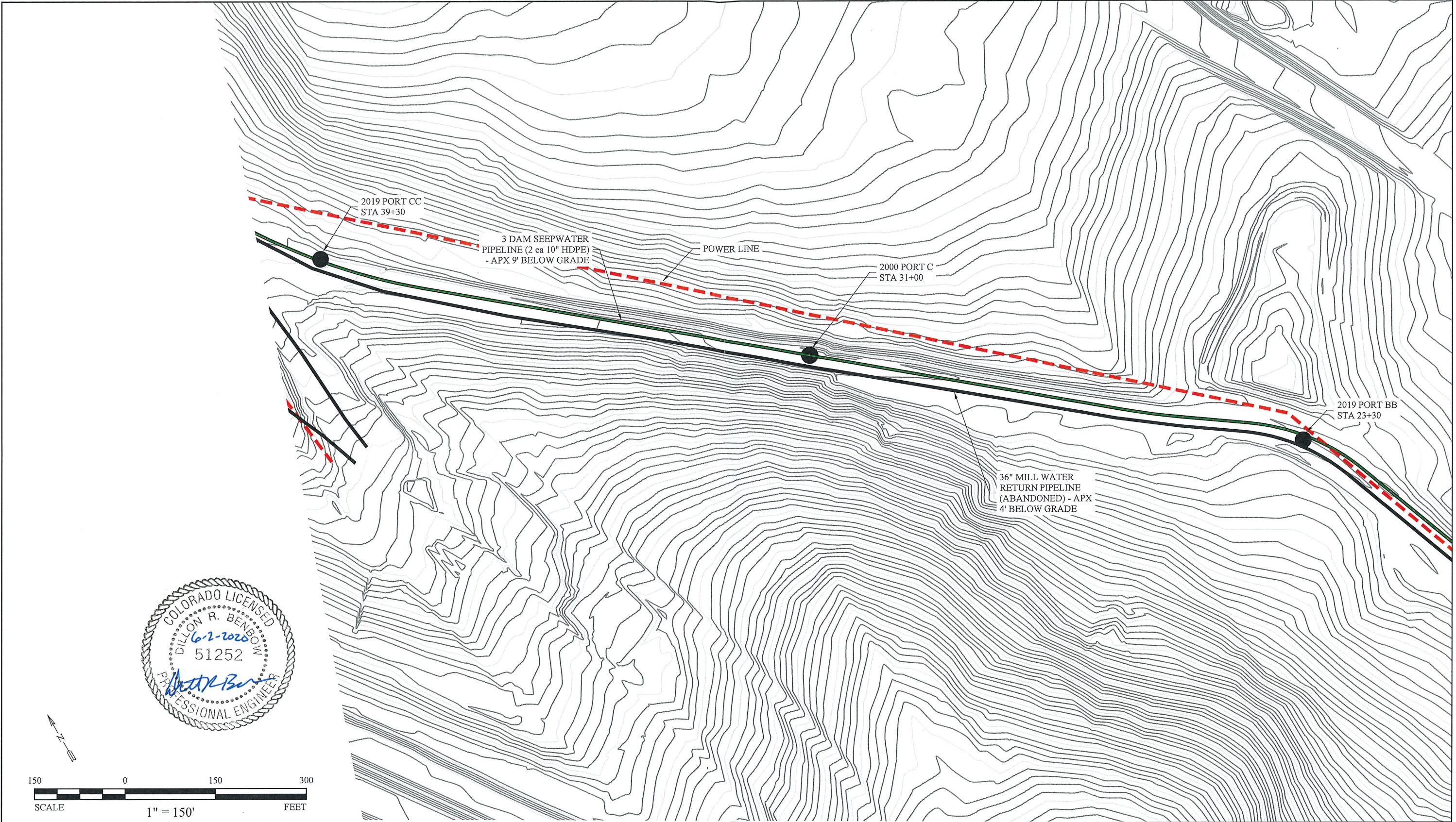
DRAWING LIST	
SHEET NUMBER	DRAWING TITLE
01	COVER SHEET
02	SECTION 1: STA 0+00 - 20+00
03	SECTION 2: STA 20+00 - 40+00
04	SECTION 3: STA 40+00 - 57+80
05	DETAILS

● PIPELINE CLEAN-OUT PORT


DWG. #	REFERENCE DRAWINGS	DESCRIPTION OF REVISION	DATE	BY	APPR	DEPARTMENT APPROVALS	ENGR:	RH	01/28/2019	HENDERSON OPERATIONS  A Freeport-McMoRan Company EMPIRE / PARSHALL, COLORADO 303-569-3221	TAILINGS AND WATER 3 DAM SEEPWATER CLEAN-OUT ADDITIONS COVER SHEET 5-6-9030 SHT 1 OF 5 REV. 
020577	AS-BUILT OF: MILL WATER RETURN LINE						DRAWN BY:	RH	01/28/2019		
1333.1B-1	No. 3 Dam Seepwaer Pipeline	AS BUILTS	6/02/2020	RH	DB		CHECKED BY:	EN	05/01/2019		
5-6-9030	3 DAM SEEPWATER CLEAN-OUT ADDITIONS	IFC	9/03/2019	RH	DB		APPROVED BY:	DB	05/01/2019		
						SCALE: AS SHOWN	SAFETY APP BY:				




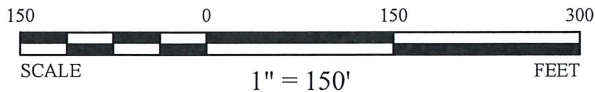
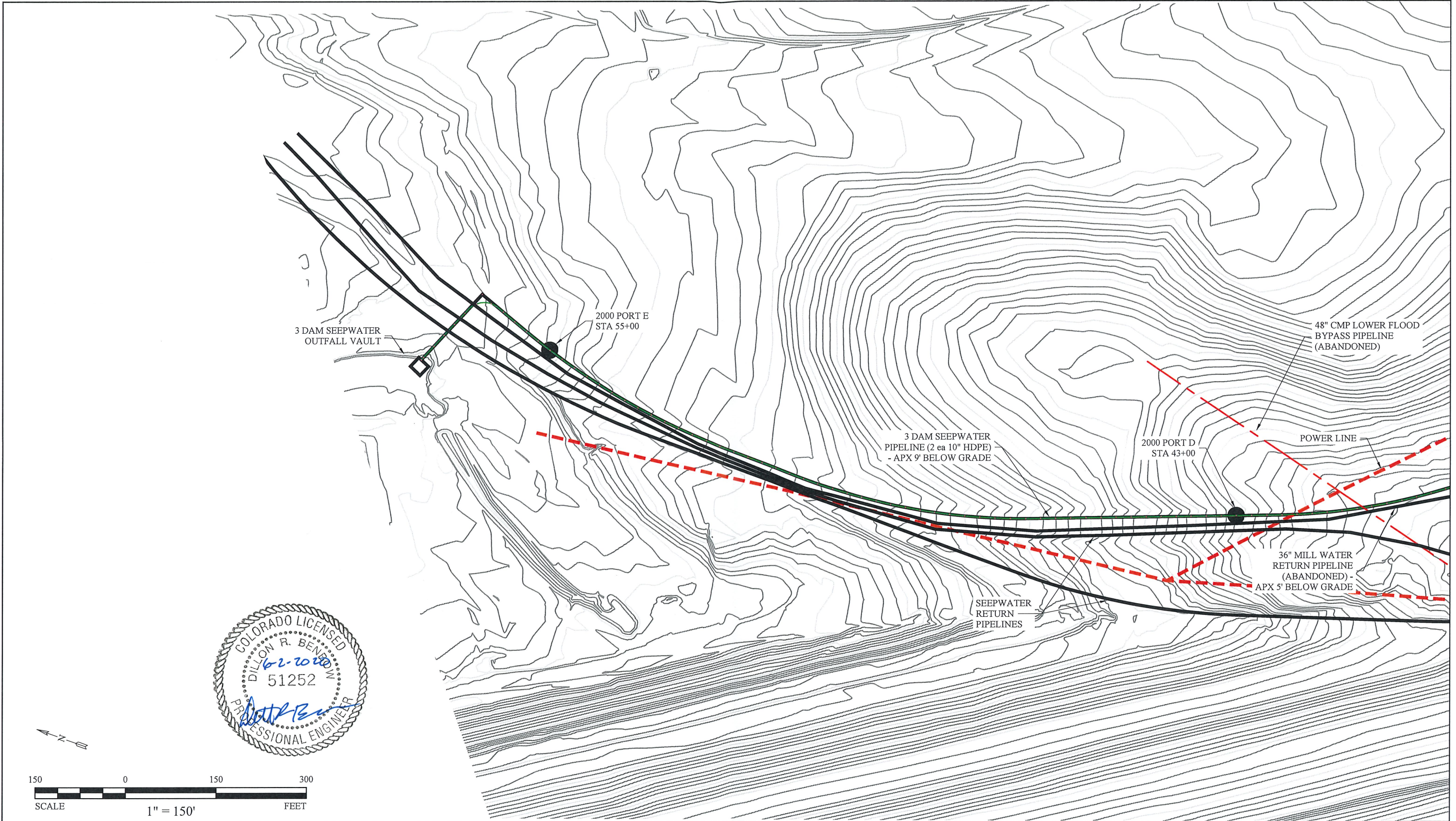
DWG. #	REFERENCE DRAWINGS	DESCRIPTION OF REVISION	DATE	BY	APPR	DEPARTMENT APPROVALS	ENGR:	RH	01/28/2019	<div><div>HENDERSON OPERATIONS</div><div> Climax Molybdenum A Freeport-McMoRan Company</div><div><small>EMPIRE / PARSHALL, COLORADO 303-569-3221</small></div></div>	<div><div>TAILINGS AND WATER</div><div>3 DAM SEEPWATER CLEAN-OUT ADDITIONS</div><div>SECTION 1 STA 0+00 - 20+00</div><div>5-6-9030</div></div>
020577	AS-BUILT OF: MILL WATER RETURN LINE						DRAWN BY:	RH	01/28/2019		
1333.1B-1	No. 3 Dam Seepwater Pipeline	AS BUILTS	8/02/2020	RH	DB		CHECKED BY:	EN	05/01/2019		
5-6-9030	3 DAM SEEPWATER CLEAN-OUT ADDITIONS	IFC	9/03/2019	RH	DB		APPROVED BY:	DB	05/01/2019		
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5-6-9030	3 DAM SEEPWATER CLEAN-OUT ADDITIONS	IFC	9/03/2019	RH	DB		APPROVED BY:	DB	05/01/2019
							APPROVED BY:		
						SCALE:	AS SHOWN	SAFETY APP BY:	

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TAILINGS AND WATER
3 DAM SEEPWATER
CLEAN-OUT ADDITIONS
SECTION 2 STA 20+00 - 40+00
5-6-9030 | SHT 3 OF 5 | REV. 

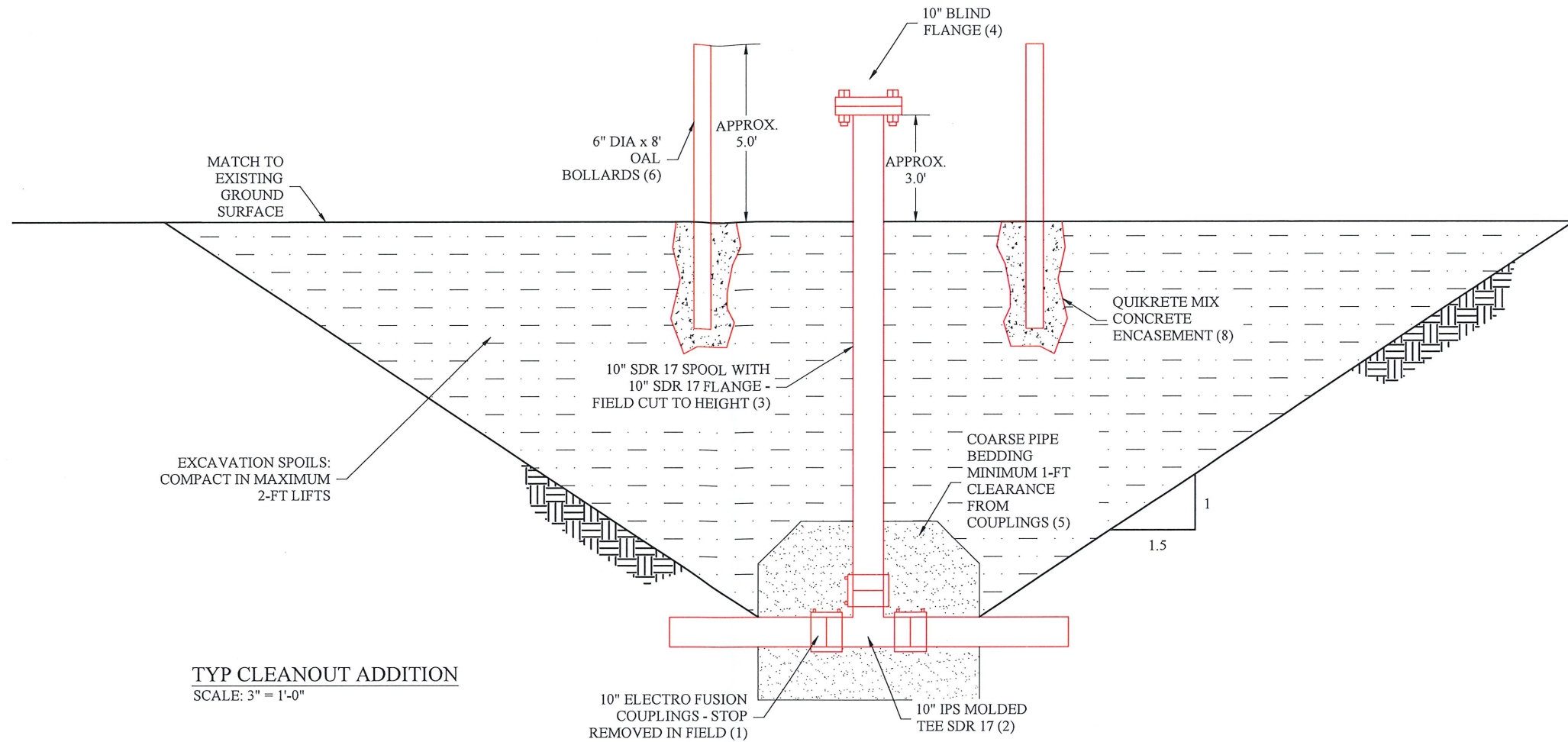


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TAILINGS AND WATER
3 DAM SEEPWATER
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SECTION 3 STA 40+00 - 57+80
5-6-9030 | SHT 4 OF 5 | REV.



- NOTES: (UNLESS OTHERWISE SPECIFIED)
- CLEAN-OUT PORTS SHALL BE INSTALLED ON BOTH PRIMARY AND BACKUP SEEPWATER COLLECTION PIPELINES
 - BLUE STAKE PERMITTING FROM MILL ENGINEERING DEPARTMENT IS REQUIRED PRIOR TO EXCAVATION.
 - ALL COARSE PIPE BEDDING AGGREGATE MUST BE PLACED IN 18" LIFTS AND TAMPED AROUND THE PIPE.
 - ENGINEERING MUST BE CONTACTED AND APPROVE INSTALLATION PRIOR TO BACKFILL
 - EXCAVATION SPOILS MUST BE COMPACTED IN MAXIMUM 2-FT LIFTS TO GRADE. COMPACTION METHOD TO BE DETERMINED IN FIELD AND SPECIFIED BY ENGINEERING
 - UNPROTECTED TRENCH SLOPES MUST BE MADE AT 1.5:1 MINIMUM AND FOLLOW ALL FMI OPEN TRENCH POLICIES
 - EACH CLEAN-OUT ADDITION MUST BE PRESSURE LEAK TESTED FOR 24 HOURS TO MAXIMUM HEAD AND APPROVED BY ENGINEERING PRIOR TO BACKFILL
 - ALL STEEL SHALL RECIEVE ONE SHOP COAT OF RUST-OLEUM 7400 YELLOW METAL PRIMER, EXCEPT AREAS TO BE FIELD WELDED



TYP CLEANOUT ADDITION
SCALE: 3" = 1'-0"

MATERIALS

ID	ITEM	PART #	QUANTITY
(1)	10" ELECTRO FUSION COUPLINGS – NO STOP (FIELD REMOVE)	10EFCPL	18
(2)	10" IPS MOLDED TEES – DR17	10HDPE17TM	6
(3)	10" X APPROXIMATELY 20 FT HDPE PIPE SPOOLS WITH 10" DR 17 FLANGE ADPT AND 10" DI BACK UP RING ON ONE END – DR 17	10X240HDPEDR17FLGXPEPOOL	6
(4)	10" 150# Blind Flange	10WFLG150RFBNDI	6
(5)	NO 8 COARSE AGGREGATE	TONN	36
(6)	6" x 8" OAL BOLLARDS	6X960BOL	6
(7)	RUST-OLEUM 7400 YELLOW METAL PRIMER		1
(8)	50 LB BAG QUICKRETE MIX		24

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June 2, 2020

Mr. Peter Hays
Environmental Protection Specialist
1313 Sherman Street, Room 215
Denver, CO 80203

**Re: Climax Molybdenum Company, Henderson Mill, Permit No. M-1977-342
Proposed Technical Revision No. 31, Additional 3 Dam Seepwater Return Line Clean-out Ports**

Dear Mr. Hays,

The 3-Dam Seepwater Return Pipelines, which consist of two 10-inch HDPE lines routing seep water from the toe of 3-Dam to the main seep water collection system at the toe of 1-Dam and Ute Park Pump station, were installed in 2000 and included a total of ten installed cleanout access locations, five on each pipe. It was determined that six additional cleanout access locations, three per pipe, were required to allow for greater access of future cleaning and maintenance. In September of 2019 the Henderson Mill successfully installed the additional cleanout access locations.

The purpose of this letter is to state that the new cleanout access locations were constructed in conformance with the design plans and specifications. Each new HDPE cleanout was installed with a molded tee with a riser pipe to the surface and all joints connected with HDPE electrofusion couplings. Once all cleanouts were installed, a 24-hour pressure test was conducted along with visual inspections of each new joint. The pressure test was finished on September 19, 2019. Before acceptance of the test, each new fused joint was visually inspected for leaks with no leaks being found in any of the new joints. The pressure gauge at the discharge of each pipeline was verified to continually hold pressure throughout the 24-hour test. After the inspection and pressure test, the pipelines were deemed acceptable for continued use, and put back into service.

Sincerely,

Dillon Benbow, P.E.
Chief Mill Engineer
Climax Molybdenum Company
Henderson Operations

